Proposed Extractive Operation and Conditional Use
Norvell Sand and Gravel Site
American Aggregates of Michigan

BOOK 2

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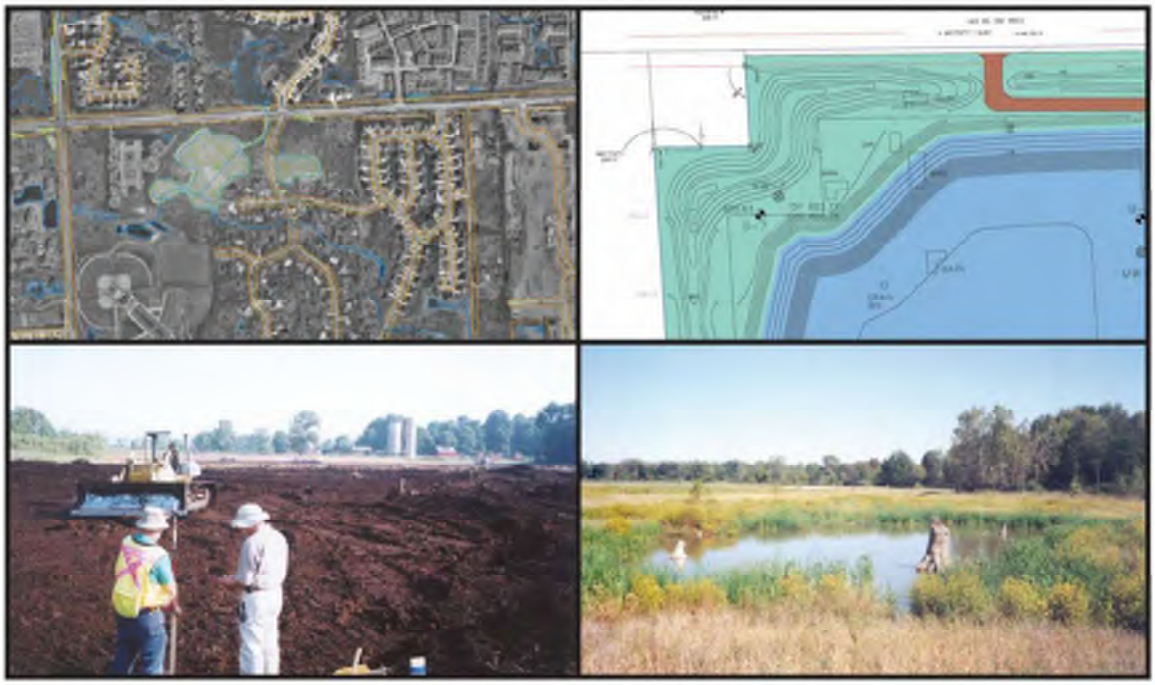
EXHIBIT 9

Phase I Environmental Site Assessment
14 Parcels
± 1,080 Acres of Rural Land
Norvell Township, Jackson County
Manchester Township, Washtenaw County
Michigan

Edw. C. Levy Co.

February 14, 2025

ASTI ENVIRONMENTAL



ASTI ENVIRONMENTAL

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14 Parcels
± 1,080 Acres of Rural Land
Norvell Township, Jackson County
Manchester Township, Washtenaw County
Michigan

February 14, 2025

Report Prepared For:

Edw. C. Levy Co.
8800 Dix Street
Detroit, MI 48209

Report Prepared By:

ASTI Environmental
10448 Citation Drive, Suite 100
Brighton, Michigan 48116
1-800-395-ASTI

ASTI Project No. A23-2691.01

Report Prepared by:

Aliya Spotts
Environmental Scientist

Report Reviewed by:

Anthony Spencer
Environmental Professional

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1.0 EXECUTIVE SUMMARY

ASTI Environmental (ASTI) was retained by Edw. C. Levy Co.to conduct a Phase I Environmental Site Assessment (ESA) of ± 1,080 acres of rural land on 14 parcels in Norvell and Manchester Townships, Jackson and Washtenaw Counties, Michigan (Subject Property). The Phase I ESA was conducted in accordance with United States Environmental Protection Agency (US EPA) Standards and Practices for All Appropriate Inquiries (AAI, 40 CFR Part 312) and the American Society for Testing and Materials (ASTM) Practice E1527-21. The information and opinions rendered in this report are exclusively for reliance by Edw. C. Levy Co..

Subject Property Overview			
Parcel Information	**No.**	**Address/Location**	**Parcel Number(s)**
	1	14760 Horning Rd.	000-20-13-400-001-01
	2	Arnold Rd.	000-20-13-251-001-01
	3	Horning Rd.	000-20-13-301-001-00
	4	Arnold Rd.	000-20-13-151-001-00
	5	13720 Horning Rd.	000-20-14-400-001-01
	6	Horning Rd.	000-20-24-200-001-00
	7	10617 Lawrence Rd.	000-20-24-301-001-00
	8	Lawrence Rd.	000-20-24-301-002-00
	9	Lawrence Rd.	000-20-24-351-001-00
	10	Cash Rd.	000-20-25-101-001-00
	11	Austin Rd.	000-20-12-276-001-00
	12	Austin Rd.	000-20-12-176-001-02
	13	14155 Austin Rd.	000-20-12-101-001-00
	14	15302 Herman Rd.	P-16-18-200-007
	Parcels numbers 1 to 13 are in Norvell Township. Parcel number 14 is in Manchester Township.		
Acreage	± 1,080		
Current Use	Rural/agricultural residential, Rural/agricultural – vacant land		

The Phase I ESA included (1) a site inspection on January 28, 2025, (2) interviews with knowledgeable site contacts, (3) review of pertinent records from Michigan Department of Environment, Great Lakes, and Energy (EGLE), Department of Licensing and Regulatory Affairs (LARA), Norvell and Manchester Townships, and Jackson and Washtenaw Counties, (4) acquisition and review of a federal and state database search, and (5) review of historical aerial photographs, topographic maps, and city directories.

Below is a summary of our opinion representing the findings of this Phase I ESA. Affirmative answers are discussed following the summary table.

Condition as defined in ASTM E1527 and/or AAI	Identified through a search of *Reasonably Ascertainable* records
Significant Data Gap	No
De Minimis Condition	Yes
Historic Recognized Environmental Condition (HREC)	No
Controlled Recognized Environmental Condition (CREC)	No
Recognized Environmental Condition (REC)	Yes

Refer to Section 10.0 for a more detailed summary of the findings.

Recognized Environmental Conditions

We have performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E1527-21 of the Subject Property. Any exceptions to, or deletions from, this practice are described in Section 2.4 of this report. This assessment has revealed the following RECs, CRECs, and/or significant data gaps in connection with the Subject Property.

1. **REC Opinion:** According to registration documents, the Subject Property farm at 14950 Horning Road was identified as formerly having a 3,000-gallon diesel UST. The diesel UST was installed in 1978 and removed from the ground on February 9, 1998. The diesel release was reported on February 16, 1998, and it was granted regulatory closure on May 11, 1998. The consultant overseeing UST removal was identified as Insight. No further information is available in regulatory records, so ASTI does not know the condition of release closure (i.e. assessment sampling results, restricted closure, or whether the agency audited the sufficiency of work performed). Therefore, there is potential for residual impact from the former diesel UST. Based on an interview with the Owner, the former diesel UST is suspected to have been located by the outbuildings located directly south of the road at 14950 Horning Road (000-20-24-200-001-00).
2. **REC Opinion:** A pit was dug on the Subject Property at 15302 Herman Road by 1969, and this pit remains as of 2024. The pit appears to have been established as borrow/sand pits but has now become somewhat of a junk yard where ASTI observed railroad ties, unused limestone, and three empty metal drums during the site reconnaissance. The drums were unlabeled. One drum was empty and laying on its side. The other two drums were upright and closed, and at least one contained an unknown liquid. Although no staining was observed, this pit is suspected to be a dump for the farm and the presence of drums in this area poses elevated environmental risk.
3. **REC Opinion:** A rusty fertilizer tank was observed on the Subject Property at 14950 Horning Road. It was approximately 2,000 gallons. It appeared to be resting directly on

the ground. No staining was observed. However, the vegetation was tall and dense around the base of the tank. Because this tank is resting directly on the ground, the condition of the base may be compromised, and visual observations are unreliable.

4. **REC Opinion:** A floor drain was observed in the Subject Property barn at 14950 Horning Road (000-20-24-200-001-00). It likely drains directly into the ground. Near the drain, there was oil-stained concrete being treated with absorbent material. The barn contained an AST, multiple drums, and smaller containers. The barn appeared to be the primary mechanical maintenance area for the farm. The presence of a floor drain in this environment is a likely source of a release.
5. **REC Opinion:** The Subject Property has primarily been developed as farmland since at least 1938. Most of the farmland has been row crops, but there were two orchards: (1) a ± 2.0-acre orchard at 14155 Austin Road and (2) a ± 33.0-acre orchard at the intersection of Horning Road and Arnold Road. Activities at both orchards likely began in the late 1800s or early 1900s and trailed off in the 1950s and 1960s. The residual trees were removed between the late 1960s and mid-1980s. Pesticides like lead arsenate (a pesticide used at fruit orchards in the U.S. from the 1890s to the 1960s) can impact shallow soil at orchards. Typical impacts include metals that are stable over time and accumulate in shallow soil. *There is a CERCLA liability exemption for pesticide application for the typical pesticide user when they have done nothing more than purchase and applied a pesticide in a customary manner; however, the burden of establishing entitlement rests on a defendant.*
6. **REC Opinion:** ASTI observed 250-gallon fuel oil ASTs at three dwellings on the Subject Property. Each of the dwellings date back to the early 1900s; therefore, the fuel oil systems have likely been in place for a long period of time. At 14950 Horning Road, the AST was observed in the basement on an earthen floor and the exterior fill port did not have spill protection. At 13720 Horning Road, the AST's exterior fill port did not have spill protection. At 14155 Austin Road, the AST's exterior fill port did not have spill protection. At these locations, the potential for spills onto bare ground over a long period of time is considered a REC.

2.0 INTRODUCTION

ASTI was retained by Edw. C. Levy Co. to conduct a Phase I ESA of the Subject Property. The Phase I ESA was conducted in accordance with the US EPA Standards and Practices for AAI and the ASTM Practice E1527-21.

2.1 Purpose

The assessment was conducted to identify RECs, HRECs, and CRECs associated with the historical uses of the Subject Property, current site operations, and the condition of surrounding properties. This Phase I ESA can be used by Edw. C. Levy Co. to qualify for one of three landowner liability protections (contiguous property owner, innocent landowner, or bona fide prospective purchaser) available under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended. This Phase I ESA may also be used to qualify for State of Michigan liability defenses and exemptions that may be available under Part 201 of the Natural Resources and Environmental Protection Act.

2.2 Detailed Scope of Services

Information required to complete the Phase I ESA was obtained from personal interviews and review of *practically reviewable* and *reasonably ascertainable* records. Informational sources include the following:

Section	Item	Adequate	Inadequate/ Data Gap	Source
7.0	Interviews	x		Owner Questionnaire
4.0	User-Provided Information		x	Questionnaire
4.1/4.2	AUL/Liens Search	x		User
5.2.3	Assessing Documents	x		Norvell Township, Manchester Township
5.2.4	Building Permits	x		Norvell Township, Washtenaw County
5.2.5	Zoning Documents	x		Norvell Township, Manchester Township
5.2.2	Fire Department Records		x	Norvell Township, Manchester Township
5.2.1	Health Department Records		x	Jackson County, Washtenaw County
5.3.1	Aerial Photographs	x		EDR
5.3.2	Sanborn Map Search	x		EDR
5.3.3	City Directories	x		EDR
5.3.4	Topographic Maps	x		EDR
5.1	Regulatory Database Review	x		EDR

2.3 Significant Assumptions

Information obtained during this assessment, to the extent it was relied on to form our opinion, was assumed to be complete and accurate. ASTI cannot be held responsible for the quality or content of information obtained from interviews and standard sources. Since ASTI cannot

warrant or guarantee that the information provided by interviews and standard sources is accurate or complete, the intention of this Phase I ESA is to reduce, but not eliminate, uncertainty for the potential for RECs, HRECs, and CRECs on the Subject Property.

2.4 Deviations, Exceptions, and Limitations

The information and opinions included in this report were given in response to a limited scope of work being a Phase I ESA per ASTM Practice E1527-21 and AAI and should be considered and implemented only in light of that particular scope of work. The services provided by ASTI in completing this assessment have been provided in a manner consistent with the normal standards of the profession. No other warranties, expressed or implied, are made.

Non-scope issues are considered by ASTM Practice E1527-21 as beyond the scope of a Phase I ESA. These issues may affect *business environmental risk* at the Subject Property. These non-scope issues may warrant assessment based on the type of Subject Property transaction. Non-scope issues such as those described in ASTM Practice E1527-21 Appendix X6 were not investigated.

No deviations to ASTM Practice E1527-21 or AAI have occurred during this assessment.

No testing or sampling of materials (i.e., soil, water, and air) was included in this assessment. No limiting conditions were identified during the site reconnaissance, except for those described in Section 6.1.

Review of standard historical sources at less than approximate five-year intervals is not required by ASTM Practice E1527-21. Past uses of the Subject Property at less than approximate five-year intervals may not have been uncovered.

Responses received from regulatory agencies or other secondary sources of information after the issuance of this report may alter the facts, findings, conclusions, or recommendations to this ESA.

2.5 Special Terms and Conditions

The Phase I ESA was performed in conformance with the scope and limitations of ASTM Practice E1527-21 and AAI. No special terms and conditions outside ASTM Practice E1527-21 and AAI have been addressed. Under the AAI Rule and ASTM Practice E1527-21, AAI must be conducted within one year prior to the date of transaction of the Subject Property. However,

according to Section 4.6 of ASTM Practice E1527-21, "Certain Components" of the AAI must be conducted or updated within 180 days prior to the date of the Subject Property transaction. These "Certain Components" and the corresponding dates they were conducted are provided below:

- Interviews with owners, operators, and occupants (conducted September 16, 2024 and January 24, 2025)
- Governmental records review (conducted January 22, 2025)
- Site reconnaissance (conducted January 28, 2025)
- Searches for records environmental cleanup liens (a User responsibility, ASTI conducted a review of liens perfected by the EGLE Remediation and Redevelopment Division on January 17, 2025)
- Declaration by the Environmental Professional responsible for the assessment (signed February 14, 2025)

2.6 User Reliance

The Phase I ESA was performed for the benefit of Edw. C. Levy Co., and ASTI acknowledges that said party may rely on the contents and conclusions presented in this report. This effort was performed per the authorization of Edw. C. Levy Co.on August 27, 2024. The information and opinions rendered in this report are exclusively for use by Edw. C. Levy Co., and ASTI will not distribute or publish this report without the consent of Edw. C. Levy Co., except as required by law or court order.

Any use a third party makes of this report, or any reliance upon it, or any decision based on it, is the sole responsibility of the third party. A third party is not afforded the status of a third-party beneficiary unless ASTI expressly agrees to such status in writing. ASTI has no responsibility for any damage that may be suffered by a third party as a result of any decision made, or action taken by a third party, based on this report.

3.0 SITE DESCRIPTION

3.1 Location, Legal Description, Vicinity Characteristics

General Location	A Site Location Map is provided in Appendix A.
Legal Description	Copies of the assessment record with the legal descriptions are included in Appendix D.

Section, Township, Range	Sections 11, 12, 13 and 24, T04S, and R02E Section 18, T04S, and R03E
City/Township, County, State, Zip Code	Norvell Township, Jackson County, MI 49230 Manchester Township, Washtenaw County, MI 48158
Parcel Number(s)	**No. Address/Location Parcel Number(s)** 1 14760 Horning Rd. 000-20-13-400-001-01 2 Arnold Rd. 000-20-13-251-001-01 3 Horning Rd. 000-20-13-301-001-00 4 Arnold Rd. 000-20-13-151-001-00 5 13720 Horning Rd. 000-20-14-400-001-01 6 Horning Rd. 000-20-24-200-001-00 7 10617 Lawrence Rd. 000-20-24-301-001-00 8 Lawrence Rd. 000-20-24-301-002-00 9 Lawrence Rd. 000-20-24-351-001-00 10 Cash Rd. 000-20-25-101-001-00 11 Austin Rd. 000-20-12-276-001-00 12 Austin Rd. 000-20-12-176-001-02 13 14155 Austin Rd. 000-20-12-101-001-00 14 15302 Herman Rd. P-16-18-200-007 Parcels numbers 1 to 13 are in Norvell Township. Parcel number 14 is in Manchester Township.
Acreage	± 1,080
Subject Property Zoning	Agricultural District (AG-1), Rural Agricultural District
Local Development Utilization	Rural farmland and woodland

A Site Features Map is included in Appendix A. Photographs of the Subject Property and adjoining properties were taken during the site inspection and are provided as Appendix B.

3.2 Current Use of the Subject Property

The Subject Property is used for agricultural use and residential.

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

Building Descriptions						
I.D.	**Building Type**	**Primary Use**	**Functional Spaces**	**# Present**	**Built Date**	**Stories**
1	Dwelling	Residential	Living room, kitchen, basement, bathroom, closets, bedrooms, stairwells	3	~ 1938	2
2	Outbuildings	Storage	Storage area	~ 12	~ 1938	1

Building Construction			
I.D.	**Square Footage (Address)**	**Primary Construction**	**Interior Finishes**
1	± 2,240 sq. ft. (Austin Rd.)	Poured-concrete slab, concrete blocks, asphalt shingles, vinyl siding	Carpet, paint, wood framing, base cove, wooden windows, floor tiles
	± 4,294 sq. ft (14950 Horning Rd.)	Poured-concrete slab, brick, asphalt shingles, basement	Plaster, base cove, wooden windows
	± 1,470 sq. ft (13720 Horning Rd.)	Poured-concrete slab, concrete blocks, asphalt shingles, vinyl siding	Carpet, paint, wood framing, base cove, wooden windows, floor tiles
2	± 2,204 sq. ft. (Austin Rd.)	Poured-concrete slab, wood frames and walls, asphalt shingles	Wood framing
	± 704 sq. ft. (Austin Rd.)	Poured-concrete slab, wood frames and walls, asphalt shingles	Wood framing
	± 320 sq. ft. (Austin Rd.)	Poured-concrete slab, wood frames and walls, asphalt shingles	Wood framing
	± 1,770 sq. ft. (Austin Rd.)	Poured-concrete slab, wood frames and walls, asphalt shingles	Wood framing
	±1,400 sq. ft. (Austin Rd.)	Poured-concrete slab, wood frames and walls, asphalt shingles	Wood framing
	±5,292 sq. ft (14950 Horning Rd.)	Poured-concrete slab, asphalt shingles, and metal walls	Wood framing
	± 4,620 sq. ft (14950 Horning Rd.)	Poured-concrete slab, asphalt shingles, and metal walls	Wood framing
	±14,729 sq. ft (14950 Horning Rd.)	Poured-concrete slab, asphalt shingles, and metal walls	Wood framing
	±3,612 sq. ft (14950 Horning Rd.)	Poured-concrete slab, asphalt shingles, and metal walls	Wood framing
	±1,890 sq. ft (14950 Horning Rd.)	Poured-concrete slab, asphalt shingles, and metal walls	Wood framing, wood panels, drains, fluorescent lights, painted walls, workshop counters
	±1,232 sq. ft (14950 Horning Rd.)	Poured-concrete slab, asphalt shingles, and metal walls	Wood framing
	± 2,490 sq. ft (14950 Horning Rd.)	Poured-concrete slab, asphalt shingles, and metal walls	Wood framing
	±1,932 sq. ft (14950 Horning Rd.)	Poured-concrete slab, asphalt shingles, and metal walls	Wood framing
	± 2,736 sq. ft (Cash Rd.)	Poured-concrete slab, asphalt shingles, and metal walls	Collapsed
	±1,750 sq. ft (Cash Rd.)	Poured-concrete slab, asphalt shingles, and metal walls	Collapsed
	±1,056 sq. ft (Cash Rd.)	Poured-concrete slab, asphalt shingles, and metal walls	Collapsed

Building Construction			
I.D.	**Square Footage (Address)**	**Primary Construction**	**Interior Finishes**
2	±1,728 sq. ft (Horning Rd.)	Poured-concrete slab, asphalt shingles, and metal walls	Collapsed
	±744 sq. ft (Horning Rd.)	Poured-concrete slab, asphalt shingles, and metal walls	Collapsed

Roads and Other Improvements	
Access	Via nearby roads
Paved Areas	None observed
Maintained Lawn	None observed
Landscaped Areas	None observed
Surface Water	Watkins Lake and multiple unnamed ponds throughout the Subject Property
Additional Improvements	None observed

Municipal Services and Utilities			
Service or Utility	**Present**	**Provider**	**Comments**
Potable Water Source	Yes	Private	Private wells are located at the following locations: • Southwest corner of Horning Rd. and Watkins Rd. (Parcel 000-20-24-200-001-00) • Horning Rd. located 1/2 mile west of intersection of Watkins Rd. and Horning Rd. (Parcel 000-20-13-301-001-00) • 13720 Horning Rd. • 10617 Lawrence Rd. • 15302 Herman Rd. (Parcel P-16-18-200-007) Copies of well records are included in Appendix D.
Irrigation Well	No		The owner informed ASTI that the current irrigation system pumps water from the nearby lake.
Sewage	Yes	Private	Septic systems, but locations not confirmed
Storm Sewer	No		
Electrical	Yes	Consumers Energy	Not connected to all parcels
Natural Gas	No		
Solid Waste Disposal	Yes	Private	
Heating & Cooling	Yes		Fuel oil heating systems at the following locations: • 14155 Austin Rd. • 13720 Horning Rd. • 14950 Horning Rd.

3.4 Current Uses of Adjoining Properties

ASTI observed adjoining properties during the site inspection to evaluate the potential risk these properties may pose to the Subject Property. Observations were made from the Subject Property and public access areas, as appropriate. Each is described as follows:

Adjoining Property Use			
Direction	**Occupant**	**Use**	**Potential Concerns Observed During Site Reconnaissance**
North	State of Michigan Woodland	Forest conservation	None
	Dwellings	Residential	
	Farmland	Agricultural/rural (general)	
East	Farmland	Agricultural/rural (general)	None
	Dwellings	Residential	
South	Dwellings	Residential	None
	Farmland	Agricultural/rural (general)	
	State of Michigan Woodland	Forest conservation	
	Private Woodland	Forest conservation	
West	Farmland	Agricultural/rural (general)	None
	Dwellings	Residential	
	Farmland	Agricultural/rural (general)	
	State of Michigan Woodland	Forest conservation	

3.5 Physical Setting Sources

A Physical Setting Sources Map, which includes an overlay of the United States Geological Survey (USGS) topographic map (7.5-minute series) for the Norvell and Onsted, Michigan quadrangle, which includes the Subject Property, is provided in the EDR report in Appendix D. The USGS map is also the basis of the Site Location Map in Appendix A.

Average Elevation (feet above mean sea level)	**Area around Austin Rd.:** ± 962 **Area around Horning Rd.:** ± 1,011 **Area around Lawrence Rd.:** ± 973
Local Gradient	**Area around Austin Rd.:** declines to the northwest **Area around Horning Rd.:** declines to the northwest **Area around Lawrence Rd.:** declines to the southeast
Regional Gradient	Declines to the southeast

Nearest Surface Water Body	Multiple unnamed ponds on the Subject Property.
Groundwater Depth* (feet below ground)	**Area around Austin Rd.:** 52 – 153 **Area around Horning Rd.:** 34.81 - 47.46 **Area around Lawrence Rd.:** 19.86 - 22.47 *Estimated depths according to the EDR database report and a hydrogeological investigation completed by ASTI.
Groundwater Flow Direction	Inferred to flow southeast based on regional gradient. However, local gradient and surface water across the Subject Property may have influence on local groundwater flow.

According to the EGLE GeoWebFace website, the quaternary geology of the Subject Property is glacial outwash sand and gravel and postglacial alluvium in the northern portion and end moraines of coarse-textured till in the southern portion.

4.0 USER PROVIDED INFORMATION

To qualify for one of the landowner liability protections offered by the Small Business Liability Relief and Brownfield's Revitalization Act of 2002, the User, defined by ASTM as *the party seeking to use Practice E1527 to complete an environmental site assessment of the property*, has specific obligations for completing a successful application of this practice as outlined in Section 6 of ASTM Practice E1527-21. Failure to provide information regarding the obligations outlined to the Environmental Professional may result in a determination that AAI is not complete.

ASTI requested the completion of a User Questionnaire; however, a completed copy was not provided to ASTI during the completion of this Phase I ESA. The User has shared their knowledge of the Subject Property's use, history, and ongoing assessments as they relate to an application for a mining permit.

4.1 Environmental Liens and Activity Use Limitations (AULs)

As indicated on the User questionnaire, the User did not identify AULs or environmental liens.

4.2 Search of Recorded Land Title Records

The User did not provide recorded land title records for the Subject Property.

4.3 Additional Records Provided by the User

The User did not provide any additional records.

5.0 RECORDS REVIEW

5.1 Standard. Environmental Record Sources

ASTI ordered a government records search for the Subject Property from Environmental Data Resources, Inc. (EDR) in Shelton, Connecticut. A copy of The EDR Radius Map Report with GeoCheck®, dated January 22, 2025, is included in Appendix D. A description of the databases, search distances, and results are presented in the EDR report.

ASTM-Required Databases			
Database List (ASTM Required Search Distance)	**Subject Property Listing**	**Adjoining Property Listing**	**Total Applicable ASTM Listings**
Federal NPL/State Hazardous Waste Site (1 mile)	No	No	0
Delisted NPL (0.5 mile)	No	No	0
Federal/State/Tribal Equivalent SEMS (0.5 mile)	No	No	0
Federal SEMS Archive (0.5 mile)	No	No	0
Federal RCRA CORRACTS (1 mile)	No	No	0
Federal TSD Facility (0.5 mile)	No	No	0
Federal RCRA Generator (Subject Property/Adjoining)	No	No	0
Federal Inst./Eng. Controls (Subject Property only)	No	No	0
Federal ERNS (Subject Property Only)	No	N/A	0
State/Tribal Landfill or Solid Waste Facility (0.5 mile)	No	No	0
State/Tribal LUST (0.5 mile)	Yes	No	1
State/Tribal Registered UST (Subject Property/Adjoining Properties)	Yes	No	1
State/Tribal Inst./Eng. Controls (Subject Property only)	No	N/A	0
State/Tribal Voluntary Cleanup Sites (0.5 mile)	No	No	0
State/Tribal Brownfield Sites (0.5 mile)	No	No	0

Refer to the EDR report Executive Summary for abbreviation descriptions.

Supplemental Databases Selected by EP			
Supplemental Database List Name (ASTI Search Distance)	**Subject Property Listing**	**Adjoining Property Listing**	**Listings in Search Distance**
State/Tribal - Part 201 (1 mile)	No	No	0
Michigan Baseline Environmental Assessment (BEA) Sites ($^1/_{10}$ mile)	No	No	0
Historical Auto Stations ($^1/_{10}$ mile)	No	No	0
Dry Cleaners/Historical Cleaners ($^1/_{10}$ mile)	No	No	0
Additional Non-ASTM Databases (Subject Property or Adjoining Property)	Yes	No	N/A
Orphans	No	No	1

5.1.1 Discussion of Subject Property Listings

Site Name	GT Ranch LLC, Glynn Trolz & Associates Inc., Trolz Farm
Databases Listing(s)	LUST, UST Finder Release, UST, UST Finder, WDS, RCRA Nongen/NLR, Finds, Echo
Location	14950 Horning Rd.
Documentation Requested	• RRD: Remediation and Redevelopment Division of the EGLE • MMD: Materials Management Division of the EGLE • LARA: Department of Licensing and Regulatory Affairs
Summary of Findings	The site was identified in the UST database. Formerly, the site contained a 7,200-gallon gasoline UST and a 3,000-gallon diesel UST.
Summary of Findings	The gasoline UST was installed in 1988 and removed from the ground in 2015. Following removal, floor samples were collected from the north and south ends of the former UST (2 total). The floor samples and a trip blank were analyzed for BTEX. The laboratory results were below detection limits. A map depicted the gasoline UST just to the southeast of the current ASTs. The diesel UST was installed in 1978 and removed from the ground on February 9, 1998. The diesel release was reported on February 16, 1998, and it was granted regulatory closure on May 11, 1998. The consultant overseeing UST removal was identified as Insight. No further information is available. No RCRA-related violations have been reported.

Site Name	Amerigas Propane
Databases Listing(s)	AST

Location	7757 E Toledo Rd., Blissfield
Documentation Requested	• RRD: Remediation and Redevelopment Division of the EGLE
Summary of Findings	This listing appears to be plotted wrong and is located several miles from the Subject Property.

Site Name	BOUDREAU-DEARBORN HEIGHTS: 99-13-0123-P
Databases Listing(s)	Enviro
Location	N/A
Documentation Requested	None
Summary of Findings	The site name appears to include a parcel number and city which are miles from the Subject Property. This listing appears to be plotted wrong.

Site Name	JOHNSON BEACH-TOLEDO: 11-38-0019-P
Databases Listing(s)	Enviro
Location	N/A
Documentation Requested	None
Summary of Findings	The site name appears to include a parcel number and city which are miles from the Subject Property. This listing appears to be plotted wrong.

The EGLE Remediation and Redevelopment Division (RRD) maintains a listing of environmental liens which EGLE RRD has placed on properties in the State in order to recover State-led response activity costs. No EGLE RRD environmental liens were listed for the Subject Property while reviewing the online database list as of January 27, 2025 (Appendix D).

According to the EDR report, the Subject Property was not listed in the search of institutional control and engineering control registries.

5.1.2 Discussion of Sites of Potential Environmental Concern

There are no listings for adjoining sites. For the remaining listings, ASTI considers select criteria to determine which listings represent an environmental concern to the Subject Property. The criteria include but are not limited to the following:

- Database type
- Topography relative to the Subject Property

- Direction and distance
- Soil profile identified in available sources
- Known or inferred groundwater depth and flow direction
- Status of applicable investigation
- Surface and subsurface conditions including but not limited to buildings, pavement, utility corridors, and surface water features
- Potable water source (well or municipal)

An evaluation of these criteria is completed to determine the level of risk associated with each listing. Listings with likely releases that are found to have the potential to represent an elevated or high risk are requested through FOIA to applicable agencies.

Using the referenced criteria and based upon the information contained within the EDR report, ASTI did not identify any additional listings beyond adjoining properties that were considered to represent an elevated or high risk to the Subject Property.

5.1.3 Discussion of Orphan Sites

No orphan sites were listed in the EDR Radius Map Report.

5.2 Additional Agency/Regulatory Sources

5.2.1 Local Health Department

ASTI requested information about the Subject Property from the Health Departments of Jackson County and Washtenaw County on January 27, 2025. No response was received; however, previous responses from 2024 indicated that no records were found (Appendix D).

5.2.2 Local Fire Department

ASTI requested information about the Subject Property from the Norvell Township and Manchester Township Fire Departments on January 27, 2025. No response was received; however, previous responses from 2024 indicated that no records were found (Appendix D).

5.2.3 Subject Property Assessor/Tax Files

ASTI reviewed information about the Subject Property from the Norvell Township and Manchester Township Assessing Departments. Reviewed records are included in Appendix D.

The former dwelling at 10617 Lawrence Road was removed between 1998 and 2006. According to the records, the dwelling had an 836-sq.-ft. “Michigan basement”. A “Michigan basement” implies a shallow basement.

The former dwelling at 10993 Cash Road was removed between 1998 and 2006. The sketch shows that the dwelling was 1,032-sq. ft., but there were no details about a potential basement.

5.2.4 Building Permit/Inspections

ASTI requested information for the Subject Property from the Norvell Township Building Department and Western Washtenaw Construction Authority. Records from Norvell Township were combined with the Assessor’s records and the findings are summarized in Section 5.2.3. The Western Washtenaw Construction Authority did not have any records.

5.2.5 Zoning/Land Use Records

ASTI reviewed online zoning maps from the Norvell Township and Manchester Zoning Departments. The Subject Property is zoned for agricultural use.

5.2.6 Oil and Gas Wells

Based on a review of the EGLE GeoWebFace search system and EDR report, no oil or gas wells were identified on or adjoining to the Subject Property.

5.3 Historical Use Information

Reasonably ascertainable standard historical sources, as found in Section 8.3.4 of ASTM Practice E1527-21, were used to determine the previous use of the Subject Property and surrounding area. A chronological summary of the sources used may include, but is not limited to aerial photographs, Sanborn maps, city directories, agency records, and prior environmental assessments. ASTI made a *good faith* effort to identify the obvious uses of the Subject Property from the present back to the Subject Property's first developed use, or back to 1940, whichever is earlier. *Data Failures* were encountered as part of this assessment and are discussed as data gaps in Section 9.0.

5.3.1 Aerial Photographs

ASTI reviewed aerial photographs provided by EDR. Observations are summarized in the table below. Copies of obtained information are provided in Appendix E.

Year	Observations
1938	**Subject Property (Austin Road):** Farmland and lowland are evident. Developments include dwellings, outbuildings, and a drain. There is a ± 2.0-acre orchard on the western parcels.
	Subject Property (North of Horning Road): Rural farmland and woodlands are evident. Developments include dwellings and outbuildings at four separate farmsteads. There is a ± 33.0-acre orchard at the intersection of Horning and Arnold.
	Subject Property (South of Horning Road): Rural farmland and some woodlands are evident. Developments include dwellings and outbuildings at three separate farmsteads.
	Adjoining: The area is rural farmland and woodland. Developments include dwellings, outbuildings, roadways, a school, and a railroad.
1940	There are some minor changes to farmstead configurations. There are additional dwellings. However, the land use remains the same.
1952	**Subject Property (North of Horning Road):** Approximately half of the orchard has been removed from the corner of Horning and Arnold.
	Subject Property (Austin Road): The orchard appears less active, and some trees are absent.
1956	**Subject Property (North of Horning Road):** The orchard is mostly absent from the corner of Horning and Arnold.
1964	There are some minor changes to farmstead configurations. There are additional dwellings. However, the land use remains the same.
1969	**Subject Property (North of Horning Road):** There is a trail leading to a pit in the central portion of the parcel at 15302 Herman. The orchard at the intersection of Horning and Arnold has mostly been transitioned to row crops. Otherwise, there are some minor changes to the farmstead configurations.
1975	**Subject Property (Austin Road):** A majority of the orchard is absent.
1979	**Subject Property (North of Horning Road):** The farmstead at the corner of Horning and Watkins Lake is improved with additional outbuildings and silos.
	Subject Property (South of Horning Road): The farmstead at the corner of Horning and Watkins Lake is improved with additional outbuildings.
1981	**Subject Property (North of Horning Road):** There is an additional pit on the central portion of the parcel at 15302 Herman.
	West Adjoining: Additional dwellings and driveways are observed along Lawrence Road.
1987	**Subject Property (Austin Road):** The orchard is absent.
1998	There are some minor changes to farmstead configurations. There are additional dwellings. However, the land use remains the same.
2005	**Subject Property (North of Horning Road):** Storge is evident around the pit at 15302 Herman.
2006	Generally, there is a gradual decline of onsite farmstead activity except at the corner of Horning and Watkins Lake. Residential use in the area increases.
2009	
2012	
2016	**Subject Property (North of Horning Road):** There is an additional pit/disturbance on the central portion of the parcel at 15302 Herman.

Year	Observations
2020	**Subject Property (South of Horning Road):** The last remaining building have been removed from the farmstead on Lawrence. The parcel at the corner of Horning and Watkins Lake has an irrigation system.

5.3.2 Sanborn Maps

EDR conducted a search of Sanborn maps, and none were identified for the area of the Subject Property. A copy of the Sanborn No Coverage Report is provided in Appendix E.

5.3.3 City Directories

City directory research was conducted by EDR (Appendix E). The table below summarizes non-residential occupant information about the Subject Property and adjoining sites along Austin Road and Horning Road.

Researched Addresses **Subject Property:** 14950 Horning Road **East Adjoining:** 15100 W. Austin Road **South Adjoining:** 13623 Horning Road	
Year	**Observations**
1967	**East Adjoining:** Lithuanian Youth Camp
1972	No significant changes in listing are evident
1973	No commercial listings
1977	
1978	
1982	**East Adjoining:** Youth Camp Dainava
1983	No commercial listings
1987	**East Adjoining:** Youth Camp Dainava
1992	No changes
1995	
2000	**Subject Property:** Trolz Glynn & Associates
	East Adjoining: No commercial listing
	South Adjoining: Dugans Management Company
2005	No commercial listings
2010	**Subject Property:** Trolz Glynn & Associates
	South Adjoining: DMSC Incorporated
2014	**East Adjoining:** Camp Dainava
2017	No significant changes in listing are evident
2020	**Subject Property:** No commercial listings
	East Adjoining: No commercial listings
	South Adjoining: DMSC Incorporated

5.3.4 Topographic Maps

ASTI reviewed United States Geological Survey (USGS) topographic maps provided by EDR. Observations are summarized in the table below. Copies of obtained information are provided in Appendix E.

Year	Observations
1948	**Subject Property (Austin Road):** The land is rural. One building and a drain are depicted.
	Subject Property (North and South of Horning Road): The land is rural. Eight buildings are depicted.
	North Adjoining: The land is rural. Buildings and a powerline are depicted.
1949	No significant changes are evident.
1980	**Subject Property:** The land remains rural. Additional buildings are depicted.
2014	Buildings are no longer included in the maps.
2017	
2019	

5.3.5 Previous Environmental Reports

ASTI was not provided with, nor is it aware of, any previous environmental reports except for efforts to complete hydrogeological study as part of an application for a mining permit.

5.3.6 Historical Use Summary of the Subject Property

Based on review of the obtained historical sources, the historic use(s) of the Subject Property is summarized as follows.

The Subject Property has primarily been developed as farmland since at least 1938. At the intersection of Horning Road and Watkins Lake Road, the farm appears to have been used for raising cattle in the past. Most of the farmland has been row crops, but there were two orchards: (1) a ± 2.0-acre orchard at 14155 Austin Road and (2) a ± 33.0-acre orchard at the intersection of Horning Road and Arnold Road. Activities at both orchards likely began in the late 1800s or early 1900s and trailed off in the 1950s and 1960s. The residual trees were removed between the late 1960s and mid-1980s.

Developments at the Subject Property have included multiple dwellings, outbuildings, silos, a county drain, and trails. A total of eight farmsteads were identified, and associated activities peaked in the 1960s and 1970s, then generally declined to the present day. Four dwellings, multiple outbuildings, and silos remain.

A pit was dug at 15302 Herman Road by 1969, and this pit remains as of 2024. Two similar disturbances, appearing to be shallower pits, were identified in the same area in the 1980s and 2010, but these two pits are overgrown now. The pits appear to have been established as borrow/sand pits, but the larger pit has now become somewhat of a junk yard where ASTI observed railroad ties, unused limestone, and three empty metal drums during the site reconnaissance.

5.3.7 Historical Use Summary of the Adjoining Properties

Based on review of the historical sources obtained, the historic uses of adjoining properties are summarized as follows:

Summary of Historic Uses of Adjoining Properties	
Direction	**Historical Use Summary**
North	The area has been woodland or used primarily for agricultural and residential purposes since at least 1938. Gradually, residential use has increased to the present day. Otherwise, there is a single-room, vacant school on Horning Road and some home-based businesses have been identified.
East	
South	
West	

6.0 SITE RECONNAISSANCE

6.1 Methodology and Limiting Conditions

Assessor Name and Title	Aliya Spotts, Environmental Scientist Bailey Bishop, Environmental Scientist
Date of Inspection	January 28, 2025
Weather Conditions	~32 º F and partly sunny
Methodology	Inspected the Subject Property in a meander and search pattern, including all property boundaries, and adjoining properties from Subject Property and public access areas.
Access Limitations	Extensive vegetation, collapsed barns, fences, snow, storage, private/secured roads, building interior
Adverse Subject Property Conditions	None

6.2 Exterior Observations

The following table summarizes the site exterior observations. Items observed are discussed further following the table.

Category	Item	Item Observed
Above Ground Hazardous Substance/Petroleum Product Storage	Drums, barrels or containers ≥5 gallons in connection with identified uses	Yes
	Drums, barrels or containers ≥5 gallons not in connection with identified uses	No
	Unidentified Substance Containers	Yes
	ASTs	Yes
Underground Hazardous Substance/Petroleum Product Storage	USTs (fill ports and/or vent pipes)	No
	Fuel dispensers	No
	Natural gas or petroleum pipelines/wells	No
Basic & Specialized Systems	Pole-mounted or pad-mounted transformers	Yes
	Hydraulic equipment	No
Indications of Releases or Potential Releases	Stained soil or pavement	No
	Stressed vegetation	No
	Pools of liquid	No
	Strong or pungent odors	No
	Filled Land/Soil Piles/Mounding	No
	Unregulated/Unauthorized Waste Disposal	No
	Dumpsters with Staining	No
	Monitor wells	Yes
Drainage & Waste Collection Systems	Pits	No
	Ponds	Yes
	Lagoons	No
	Sumps/Oil-Water Separators	No
	Storm water collection basins	No
	Dry wells/crocks/cisterns	No
Other Notable Items	None	No

Items noted as not observed do not fully warrant that these items are not present on the Subject Property as some items may not have been readily observable.

14950 Horning Road

Three fuel ASTs were observed north of the barn along Horning Road at the southwest corner of the farmstead. The tanks are suspected to contain diesel and gasoline. They were approximately 1,000 gallons each and are located on a concrete slab. They were in good condition and no staining was observed.

A rusty fertilizer tank was observed near the fuel tanks described above. It was approximately 2,000 gallons. It appeared to be directly located on the ground. No staining was observed. However, the vegetation was tall and dense around the base of the tank.

A transformer was observed east of the dwelling. No staining was observed, and it appeared to be in good condition. No labeling was observed.

14950 Horning Road (000-20-24-200-001-00)

A covered storage area was observed. ASTI observed wood planks, hay bales, a 250-gallon fuel tank on a trailer, 14 one-gallon containers of herbicides, three 20-lbs. propane tanks, car batteries, eight drums (unlabeled or labeled as mineral spirits and engine oil), and farming equipment. The ground was not paved, but no staining was observed. However, observations were limited by vegetation.

15302 Herman Road (P-16-18-200-007)

Pole-mounted transformers were observed near Herman Road. One was located south of the vertical silo and three were located southwest of the horizontal concrete silo. No staining was observed, and they appeared to be in good condition. No labeling was observed.

In the northeast corner of the horizontal concrete silo, ASTI observed tractor parts, metal pipes, a water heater, an empty AST, and piles of wood. No staining was observed. However, thick and tall vegetation was growing around the area, making it hard to see the ground clearly.

ASTI observed a pile of limestone north of the horizontal silo. According to the owner, limestone is used for water treatment but was not used at the Subject Property. No stressed vegetation was observed. However, the vegetation was thick and tall, making it difficult to see the base of the pile.

Three rusty metal drums were observed north of the horizontal silo. The drums were unlabeled. One drum was empty and laying on its side. The other two drums were upright and closed, and at least one contained an unknown liquid. No staining was observed by the drums.

14760 Horning Road

A blue monitoring well was observed near the road. The monitoring well is associated with a hydrogeological survey.

10617 Lawrence Road

Two blue monitoring wells were observed near the former dwelling. The monitoring wells are associated with a hydrogeological survey.

Lawrence Road (000-20-24-351-001-00)

Three blue monitoring wells were observed near the former dwelling. The monitoring wells are associated with a hydrogeological survey.

Cash Road (000-20-25-101-001-00)

A blue monitoring well was observed near the road. The monitoring well is associated with a hydrogeological survey.

6.3 Interior Observations

ASTI was unable to access secured interior areas during the inspection on January 28, 2025. The information contained in this section is based on a previous inspection on September 16, 2024.

The following table summarizes the site interior observations. Items observed are discussed further following the table.

Category	Item	Item Observed
Above Ground Hazardous Substance/Petroleum Product Storage	Drums, barrels or containers ≥5 gallons in connection with identified uses	Yes
	Drums, barrels or containers ≥5 gallons not in connection with identified uses	No
	Unidentified Substance Containers	No
	ASTs	Yes
Underground Hazardous Substance/Petroleum Product Storage	USTs (fill ports and/or vent pipes)	No
	Dispensing Systems	No
Basic & Specialized Systems	Transformers	No
	Elevators	No
	Compressors	No
	Compactors	No
	Hydraulic Hoists/Lifts	No
	Hydraulic Equipment other than those above	No
	Emergency generators	No
Indications of Releases or Potential Releases	Staining	Yes
	Pools of liquid	No
	Strong or pungent odors	No
	Monitor wells	No
Drainage & Waste Collection Systems	Pits	No
	Standard floor drains	Yes
	Sumps/manhole covers/oil-water separators	No
	Trench drains	No
	Dry wells/crocks	No

Category	Item	Item Observed
Other Notable Items	None	N/A

Items noted as not observed do not warrant that these items are not present on the Subject Property as some items may not have been readily observable.

14950 Horning Road

ASTI observed a 250-gallon fuel oil AST in the basement of the dwelling. It was rusty, but in fair condition. No staining was observed. The basement has an earthen floor. There was no visible staining around the exterior fill port or vent pipe.

15302 Herman Road (P-16-18-200-007)

A rusty blue unlabeled drum was observed in the barn located northwest of the silos. The drum was stored on the concrete floor. No staining was observed.

14950 Horning Road (000-20-24-200-001-00)

A 250-gallon AST was observed in the barn, and it appeared to be for oil storage. It was in good condition. The floor is concrete, and no staining was visible.

Seven black drums were observed in the barn. Three drums were empty and unlabeled, two contained engine oil, and two contained hydraulic fluid. The floor is concrete, and no staining was visible.

There was a blue metal box that functioned as a secondary containment for the smaller, open containers of oil. The floor is concrete, and no staining was visible.

A floor drain was observed in the barn. It likely drains directly into the ground. Near the drain, there was oil-stained concrete being treated with absorbent material.

Other notable observations in the barn include various cleaning products, lubricants, a five-gallon air tank, and motor parts.

13720 Horning Road

ASTI observed a 250-gallon fuel oil AST in the basement of the dwelling. It was rusty, but in fair condition. No staining was observed. The basement has a concrete floor. There was no visible staining around the exterior fill port or vent pipe.

14155 Austin Road

ASTI observed a 250-gallon fuel oil AST in the basement of the dwelling. It was rusty, but in fair condition. A limited amount of oil-stained concrete was observed below the tank. The basement has a concrete floor. There was no visible staining around the exterior fill port or vent pipe. The fill port was labeled with a barcode of Corrigan Oil Company.

A sump and sump pump were observed in the basement.

An empty, plastic, 150-gallon tank was observed in the barn. It was in good condition and no staining was observed.

7.0 INTERVIEWS

7.1 Interview with Owner

Gary Trolz completed an Owner Questionnaire on September 16, 2024, and they explained site use during site reconnaissance on September 16, 2024. They have been associated with the Subject Property for 60 years, but it was largely run by his father. There are three 1,000-gallon fuel tanks. The irrigation system draws from the nearby lake. Two former USTs were removed from the ground at 14760 Horning Road, one by the barn north of Horning Road and another by the barns south of Horning Road. The State was involved in UST closure. A copy of the questionnaire is included in Appendix C. ASTI attempted to interview Gary Trolz again on January 25, 2025, but did not receive a response.

7.2 Interview with Site Manager

Refer to Section 7.1.

7.3 Interview with Occupants

Refer to Section 7.1.

7.4 Interviews with Local Government Officials

Conversations with local government officials were limited to requesting department records.

7.5 Interviews with Others

No others were interviewed as part of this assessment.

8.0 DISCUSSION REGARDING POTENTIAL VAPOR MIGRATION/ENCROACHMENT

The purpose of Tier 1 Non-Invasive screening is to conduct an initial screen to determine if a vapor migration/encroachment condition (VEC) exists, likely exists, cannot be ruled out, or can be ruled out at the Subject Property.

Based on the RECs listed in Section 11.0, the screening process concludes that a VEC cannot be ruled out.

9.0 DATA FAILURE AND DATA GAPS

Data gaps occur when the EP is unable to obtain information required despite a *good faith* effort.

Data failure is one type of data gap. According to ASTM Practice E1527-21, data failure occurs when all the standard historical sources that are *reasonably ascertainable* and likely to be useful have been reviewed and yet the objectives have not been met. Historical sources are required to document property use back to the Subject Property's first developed use or back to 1938, whichever is earlier. A data failure is considered to have occurred and is described below.

Data Gap	The Subject Property was developed prior to the earliest reasonably ascertainable standard historical source.
Is this a significant data gap?	No
Rationale	The first identified use was farmland, which is typically the first developed use of a site. No suspect crops were identified.

No additional data gaps were encountered during this investigation, except for those listed below.

Data Gap	ASTI was unable to determine the source of fill used to return to grade former basements.
Is this a significant data gap?	No
Rationale	The source of the fill soil is unknown. Since the building was demolished in a rural area, the fill soil is not considered suspect because it is likely from a nearby natural source. An assessment of potential fill soil, in the location of former buildings with basements, can be carried out to further reduce environmental risk.

Data Gap	There were former dwellings (3 total) at these locations: one at intersection of Arnold Road and Horning Road (only an open basement remains), around 10993 Cash Road, and at 10617 Lawrence Road. ASTI was unable to determine past heating fuel sources for former buildings, particularly dwellings. The fuel sources may have included electric, wood, coal, propane, or fuel oil.
Is this a significant data gap?	No
Rationale	Although no evidence (i.e., fill ports, vent pipes, or pressure gages, etc.) or information regarding the use of heating fuel was found during the assessment, based on the age of the former residences (built in the 1930s), there is a potential that heating oil was used as a fuel source prior to natural gas. If a buried heating oil fuel tank is found during any redevelopment activities, the tank should be properly decommissioned with verification sampling conducted.

Data Gap	ASTI requested the completion of a User Questionnaire; however, a completed copy was not provided to ASTI during the completion of this Phase I ESA.
Is this a significant data gap?	No
Rationale	The User has shared their knowledge of the Subject Property's use, history, and ongoing assessments as they relate to an application for a mining permit.

Data Gap	ASTI was unable to access the interior buildings at the Subject Property during an inspection on January 28, 2025.
Is this a significant data gap?	No
Rationale	On September 16, 2024, ASTI inspected the interior areas. Since then, the site has been unused, so conditions are expected to have remained the same.

Data Gap	ASTI was unable to review potential records from the Fire and Health Departments.
Is this a significant data gap?	No
Rationale	Previous responses from these departments in 2024 stated that no records exist. Given the short period of time since their response and ASTI's other efforts, including site reconnaissance, the condition of the Subject Property appears to be unchanged.

10.0 FINDINGS AND OPINION

FINDINGS

Subject Property

Uses

The Subject Property has primarily been developed as farmland since at least 1938. At the intersection of Horning Road and Watkins Lake Road, the farm appears to have been used for raising cattle in the past. Most of the farmland has been row crops, but there were two orchards: (1) a ± 2.0-acre orchard at 14155 Austin Road and (2) a ± 33.0-acre orchard at the intersection of Horning Road and Arnold Road. Activities at both orchards likely began in the late 1800s or early 1900s and trailed off in the 1950s and 1960s. The residual trees were removed between the late 1960s and mid-1980s.

Developments at the Subject Property have included multiple dwellings, outbuildings, silos, a county drain, and trails. A total of eight farmsteads were identified, and associated activities peaked in the 1960s and 1970s, then generally declined to the present day. Four dwellings, multiple outbuildings, and silos remain.

A pit was dug at 15302 Herman Road by 1969, and this pit remains as of 2024. Two similar disturbances, appearing to be shallower pits, were identified in the same area in the 1980s and 2010, but these two pits are overgrown now. The pits appear to have been established as borrow/sand pits, but the larger pit has now become somewhat of a junk yard where ASTI observed railroad ties, unused limestone, and three unlabeled metal drums during the site reconnaissance.

Subject Property

Interview

ASTI interviewed the owner, Gary Trolz. They have been associated with the Subject Property for 60 years, but it was largely run by his father. There are three 1,000-gallon fuel tanks. The irrigation system draws from the nearby lake. Two former USTs were removed from the ground at 14760 Horning Road, one by the barn north of Horning Road and another by the barns south of Horning Road. The State was involved in UST closure.

Subject Property

Regulatory Records

Site Name	GT Ranch LLC, Glynn Trolz & Associates Inc., Trolz Farm
Databases Listing(s)	RGA LUST, LUST, UST, WDS, UST Finder, RCRA Nongen/NLR, Finds, Echo
Location	14950 Horning Rd.
Documentation Requested	• RRD: Remediation and Redevelopment Division of the EGLE • MMD: Materials Management Division of the EGLE • LARA: Department of Licensing and Regulatory Affairs
Summary of Findings	The site was identified in the UST database. Formerly, the site contained a 7,200-gallon gasoline UST and a 3,000-gallon diesel UST. The diesel UST was installed in 1978 and removed from the ground on February 9, 1998. The diesel release was reported on February 16, 1998, and it was granted regulatory closure on May 11, 1998. The consultant overseeing UST removal was identified as Insight. No further information is available. The gasoline UST was installed in 1988 and removed from the ground in 2015. Following removal, floor samples were collected from the north and south ends of the former UST (2 total). The floor samples and a trip blank were analyzed for BTEX. The laboratory results were below detection limits. A map depicted the gasoline UST just to the southeast of the current ASTs. No RCRA-related violations have been reported.

Subject Property

Site Reconnaissance

<u>14155 Austin Road</u>

ASTI observed a 250-gallon fuel oil AST in the basement of the dwelling. It was rusty, but in fair condition. A limited amount of oil-stained concrete was observed below the tank. The basement has a concrete floor. There was no visible staining around the exterior fill port or vent pipe. The fill port was labeled with a barcode of Corrigan Oil Company.

A sump and sump pump were observed in the basement.

An empty, plastic, 150-gallon tank was observed in the barn. It was in good condition and no staining was observed.

15302 Herman Road (P-16-18-200-007)

In the northeast corner of the horizontal concrete silo, ASTI observed tractor parts, metal pipes, a water heater, an empty AST, and piles of wood. No staining was observed. However, thick and tall vegetation was growing around the area, making it hard to see the ground clearly.

ASTI observed a pile of limestone north of the horizontal silo. According to the owner, limestone is used for water treatment but was not used at the Subject Property. No stressed vegetation was observed. However, the vegetation was thick and tall, making it difficult to see the base of the pile.

Three drums were observed north of the horizontal silo. The drums were unlabeled. One drum was empty and laying on its side. The other two drums were upright and closed, and at least one contained an unknown liquid. No staining was observed by the drums.

A rusty blue unlabeled drum was observed in the barn located northwest of the silos. The drum was stored on the concrete floor. No staining was observed.

13720 Horning Road

ASTI observed a 250-gallon fuel oil AST in the basement of the dwelling. It was rusty, but in fair condition. No staining was observed. The basement has a concrete floor. There was no visible staining around the exterior fill port or vent pipe.

14950 Horning Road

Three fuel ASTs were observed north of the barn along Horning Road at the southwest corner of the farmstead. The tanks are suspected to contain diesel and gasoline. They were approximately 1,000 gallons each and are located on a concrete slab. They were in good condition and no staining was observed.

A rusty fertilizer tank was observed near the fuel tanks described above. It was approximately 2,000 gallons. It appeared to be directly located on the ground. No staining was observed. However, the vegetation was tall and dense around the base of the tank.

ASTI observed a 250-gallon fuel oil AST in the basement of the dwelling. It was rusty, but in fair condition. No staining was observed. The basement has an earthen floor. There was no visible staining around the exterior fill port or vent pipe.

14950 Horning Road (000-20-24-200-001-00)

A covered storage area was observed. ASTI observed wood planks, hay bales, a 250-gallon fuel tank on a trailer, 14 one-gallon containers of herbicides, three 20-lbs. propane tanks, car batteries, eight drums (unlabeled or labeled as mineral spirits and engine oil), and farming equipment. The ground was not paved, but no staining was observed. However, observations were limited by vegetation.

A 250-gallon AST was observed in the barn, and it appeared to be for oil storage. It was in good condition. The floor is concrete, and no staining was visible.

Seven black drums were observed in the barn. Three drums were empty and unlabeled, two contained engine oil, and two contained hydraulic fluid. The floor is concrete, and no staining was visible.

There was a blue metal box that functioned as a secondary containment for the smaller, open containers of oil. The floor is concrete, and no staining was visible.

A floor drain was observed in the barn. It likely drains directly into the ground. Near the drain, there was oil-stained concrete being treated with absorbent material.

Other notable observations in the barn include various cleaning products, lubricants, a five-gallon air tank, and motor parts.

OPINION

Based on the site inspection, interviews, regulatory and municipal records review, and review of historical documentation, the following is opined by the EP.

Opinion: Aside from those areas below, ASTI did not observe evidence of a release in connection with aboveground storage at the Subject Property. Generally, the storage containers were in fair to good condition, on pavement or covered with a roof, and the surrounding areas were free of staining.

Opinion: The Subject Property was identified as formerly having two registered USTs. The farm at 14950 Horning Road contained a 7,200-gallon gasoline UST and a 3,000-gallon diesel UST according to registration documents. The diesel UST is discussed below as a REC. The gasoline UST was installed in 1988 and removed from the ground in 2015. Following removal, floor

samples were collected from the north and south ends of the former UST (2 total). The floor samples and a trip blank were analyzed for BTEX. The laboratory results were below detection limits. A map depicted the gasoline UST just to the southeast of the current ASTs. The former gasoline UST was removed from the ground without evidence of a release, and it is not considered a REC.

De Minimis Conditions

The EP did identify de minimis conditions associated with the Subject Property.

- **De Minimis Condition:** ASTI observed a 250-gallon fuel oil AST in the basement of the dwelling at 14155 Austin Road. It was rusty, but in fair condition. A limited amount of oil-stained concrete was observed below the tank. The basement has a concrete floor. There was no visible staining around the exterior fill port or vent pipe. The concrete floor is judged to be a sufficient barrier to prevent a significant release. ASTI recommends contacting a contractor to have the storage system inspected.

Significant Data Gaps

The EP did not identify any significant data gaps associated with the Subject Property.

Historical Recognized Environmental Conditions

The EP did not identify any HRECs associated with the Subject Property.

Controlled Recognized Environmental Conditions

The EP did not identify any CRECs associated with the Subject Property.

Recognized Environmental Conditions

The EP did identify RECs associated with the Subject Property.

1. **REC Opinion:** According to registration documents, the Subject Property farm at 14950 Horning Road was identified as formerly having a 3,000-gallon diesel UST. The diesel UST was installed in 1978 and removed from the ground on February 9, 1998. The diesel release was reported on February 16, 1998, and it was granted regulatory closure on May 11, 1998. The consultant overseeing UST removal was identified as Insight. No further information is available in regulatory records, so ASTI does not know the condition of release closure (i.e. assessment sampling results, restricted closure, or whether the agency audited the sufficiency of work performed). Therefore, there is potential for

residual impact from the former diesel UST. Based on an interview with the Owner, the former diesel UST is suspected to have been located by the outbuildings located directly south of the road at 14950 Horning Road (000-20-24-200-001-00).

2. **REC Opinion:** A pit was dug on the Subject Property at 15302 Herman Road by 1969, and this pit remains as of 2024. The pit appears to have been established as borrow/sand pits but has now become somewhat of a junk yard where ASTI observed railroad ties, unused limestone, and three empty metal drums during the site reconnaissance. The drums were unlabeled. One drum was empty and laying on its side. The other two drums were upright and closed, and at least one contained an unknown liquid. Although no staining was observed, this pit is suspected to be a dump for the farm and the presence of drums in this area poses elevated environmental risk.
3. **REC Opinion:** A rusty fertilizer tank was observed on the Subject Property at 14950 Horning Road. It was approximately 2,000 gallons. It appeared to be resting directly on the ground. No staining was observed. However, the vegetation was tall and dense around the base of the tank. Because this tank is resting directly on the ground, the condition of the base may be compromised, and visual observations are unreliable.
4. **REC Opinion:** A floor drain was observed in the Subject Property barn at 14950 Horning Road (000-20-24-200-001-00). It likely drains directly into the ground. Near the drain, there was oil-stained concrete being treated with absorbent material. The barn contained an AST, multiple drums, and smaller containers. The barn appeared to be the primary mechanical maintenance area for the farm. The presence of a floor drain in this environment is a likely source of a release.
5. **REC Opinion:** The Subject Property has primarily been developed as farmland since at least 1938. Most of the farmland has been row crops, but there were two orchards: (1) a ± 2.0-acre orchard at 14155 Austin Road and (2) a ± 33.0-acre orchard at the intersection of Horning Road and Arnold Road. Activities at both orchards likely began in the late 1800s or early 1900s and trailed off in the 1950s and 1960s. The residual trees were removed between the late 1960s and mid-1980s. Pesticides like lead arsenate (a pesticide used at fruit orchards in the U.S. from the 1890s to the 1960s) can impact shallow soil at orchards. Typical impacts include metals that are stable over time and accumulate in shallow soil. *There is a CERCLA liability exemption for pesticide application for the typical pesticide user when they have done nothing more than purchase and applied a pesticide in a customary manner; however, the burden of establishing entitlement rests on a defendant.*
6. **REC Opinion:** ASTI observed 250-gallon fuel oil ASTs at three dwellings on the Subject Property. Each of the dwellings date back to the early 1900s; therefore, the fuel oil

systems have likely been in place for a long period of time. At 14950 Horning Road, the AST was observed in the basement on an earthen floor and the exterior fill port did not have spill protection. At 13720 Horning Road, the AST's exterior fill port did not have spill protection. At 14155 Austin Road, the AST's exterior fill port did not have spill protection. At these locations, the potential for spills onto bare ground over a long period of time is considered a REC.

11.0 CONCLUSIONS

We have performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E1527-21 of Subject Property. Any exceptions to, or deletions from, this practice are described in Section 2.4 of this report. This assessment has revealed the following RECs, CRECs, and/or significant data gaps in connection with the Subject Property:

1. **REC Opinion:** According to registration documents, the Subject Property farm at 14950 Horning Road was identified as formerly having a 3,000-gallon diesel UST. The diesel UST was installed in 1978 and removed from the ground on February 9, 1998. The diesel release was reported on February 16, 1998, and it was granted regulatory closure on May 11, 1998. The consultant overseeing UST removal was identified as Insight. No further information is available in regulatory records, so ASTI does not know the condition of release closure (i.e. assessment sampling results, restricted closure, or whether the agency audited the sufficiency of work performed). Therefore, there is potential for residual impact from the former diesel UST. Based on an interview with the Owner, the former diesel UST is suspected to have been located by the outbuildings located directly south of the road at 14950 Horning Road (000-20-24-200-001-00).

2. **REC Opinion:** A pit was dug on the Subject Property at 15302 Herman Road by 1969, and this pit remains as of 2024. The pit appears to have been established as borrow/sand pits but has now become somewhat of a junk yard where ASTI observed railroad ties, unused limestone, and three empty metal drums during the site reconnaissance. The drums were unlabeled. One drum was empty and laying on its side. The other two drums were upright and closed, and at least one contained an unknown liquid. Although no staining was observed, this pit is suspected to be a dump for the farm and the presence of drums in this area poses elevated environmental risk.

3. **REC Opinion:** A rusty fertilizer tank was observed on the Subject Property at 14950 Horning Road. It was approximately 2,000 gallons. It appeared to be resting directly on the ground. No staining was observed. However, the vegetation was tall and dense around the base of the tank. Because this tank is resting directly on the ground, the condition of the base may be compromised, and visual observations are unreliable.

4. **REC Opinion:** A floor drain was observed in the Subject Property barn at 14950 Horning Road (000-20-24-200-001-00). It likely drains directly into the ground. Near the drain, there was oil-stained concrete being treated with absorbent material. The barn contained an AST, multiple drums, and smaller containers. The barn appeared to be the primary mechanical maintenance area for the farm. The presence of a floor drain in this environment is a likely source of a release.

5. **REC Opinion:** The Subject Property has primarily been developed as farmland since at least 1938. Most of the farmland has been row crops, but there were two orchards: (1) a ± 2.0-acre orchard at 14155 Austin Road and (2) a ± 33.0-acre orchard at the intersection of Horning Road and Arnold Road. Activities at both orchards likely began in the late 1800s or early 1900s and trailed off in the 1950s and 1960s. The residual trees were removed between the late 1960s and mid-1980s. Pesticides like lead arsenate (a pesticide used at fruit orchards in the U.S. from the 1890s to the 1960s) can impact shallow soil at orchards. Typical impacts include metals that are stable over time and accumulate in shallow soil. *There is a CERCLA liability exemption for pesticide application for the typical pesticide user when they have done nothing more than purchase and applied a pesticide in a customary manner; however, the burden of establishing entitlement rests on a defendant.*

6. **REC Opinion:** ASTI observed 250-gallon fuel oil ASTs at three dwellings on the Subject Property. Each of the dwellings date back to the early 1900s; therefore, the fuel oil systems have likely been in place for a long period of time. At 14950 Horning Road, the AST was observed in the basement on an earthen floor and the exterior fill port did not have spill protection. At 13720 Horning Road, the AST's exterior fill port did not have spill protection. At 14155 Austin Road, the AST's exterior fill port did not have spill protection. At these locations, the potential for spills onto bare ground over a long period of time is considered a REC.

12.0 ADDITIONAL SERVICES

Non-Scope Considerations under Appendix X6 of ASTM Practice E1527-21 were not addressed in this investigation.

13.0 REFERENCES

The following references were used in preparing this Phase I ESA:

- Standard. Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process E1527-21
- 40 CFR Part 312: Standards and Practice for All Appropriate Inquiries; Final Rule (AAI), November 1, 2005
- EDR Radius Map Report with GeoCheck
- EDR Aerial Photo Decade Package
- EDR Certified Sanborn Map Report
- EDR-City Directory Image Report
- EDR Historical Topo Map Report
- User Questionnaire
- Owner Questionnaire
- Assessing Department
- Building Department
- Fire Department
- Zoning Department
- Health Department
- EGLE
- EGLE RRD Perfected Environmental Liens List https://www.michigan.gov/egle/about/organization/remediation-and-redevelopment/rrd-enforcement-perfected-lien-list
- LARA
- http://www.deq.state.mi.us/GeoWebFace/

14.0 SIGNATURE(S) OF ENVIRONMENTAL PROFESSIONAL(S)

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in 312.10 of 40 CFR 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 all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Anthony Spencer
Environmental Professional
Date: February 14, 2025

Glossary

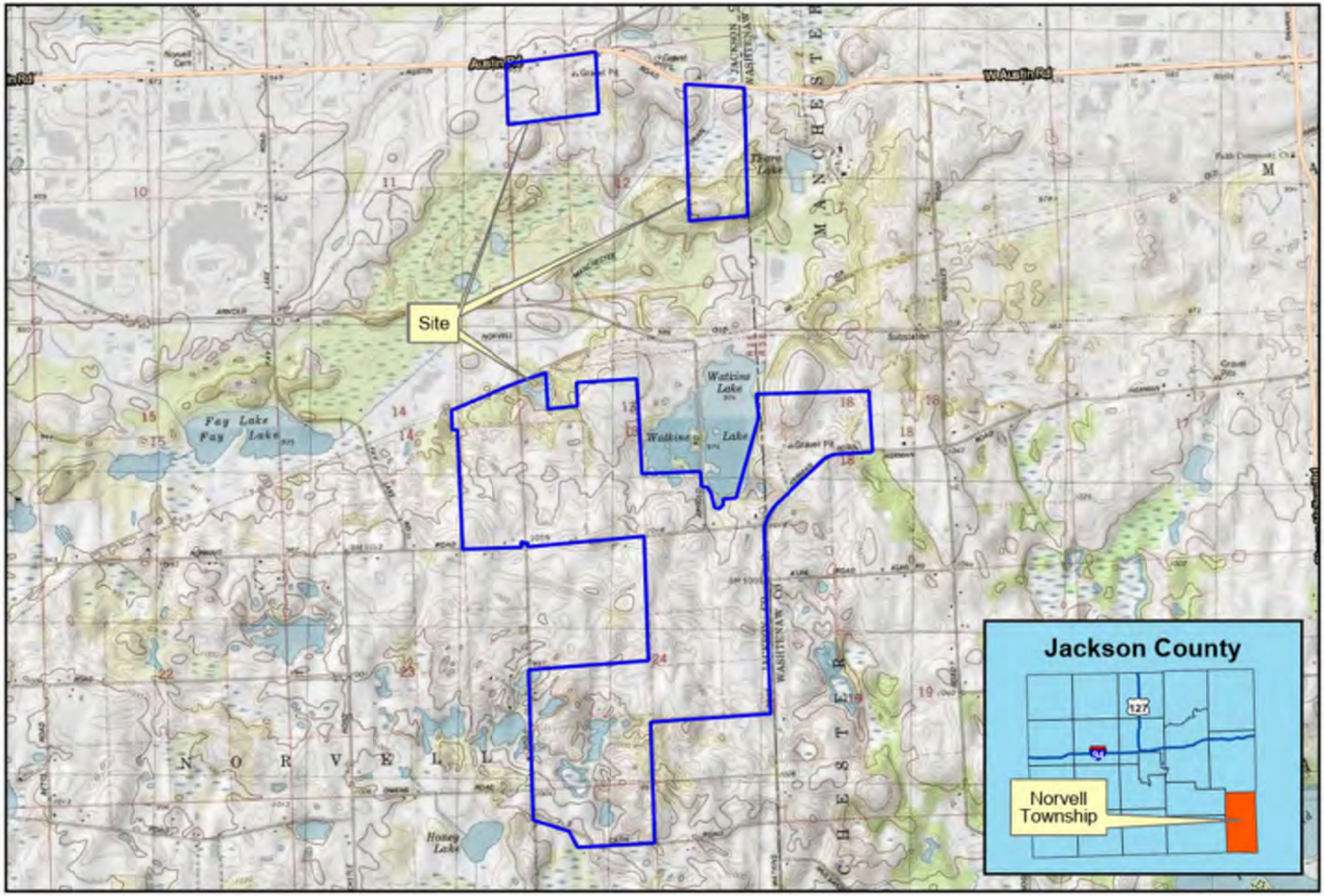
- *Business Environmental Risk:* A risk which can have a material environmental or environmentally driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in ASTM Practice E1527.
- *Controlled REC*: A recognized environmental condition affecting the Subject Property that has been addressed to the satisfaction of the applicable regulatory authority or authorities with hazardous substances or petroleum products allowed to remain in place subject to implementation of required controls (for example, activity and use limitations or other property use limitations).
- *Data Gap:* A lack of or inability to obtain information required by this practice despite good faith efforts by the EP to gather such information.
- *De Minimis Condition:* De minimis conditions are conditions related to a release that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis are not RECs or CRECs.
- *Environmental Condition:* ASTI defines an Environmental Condition as the presence or likely presence, currently or in the past, of a hazardous substance or petroleum product in, on, or at the Subject Property of which an opinion regarding the likelihood of a release to the environment is required by the Environmental Professional to determine if a REC is present.
- *Good Faith:* The absence of any intention to see an unfair advantage or to defraud another party; an honest and sincere intention to fulfill one's obligations in the conduct or transaction concerned.
- *Hazardous Substance:* A substance defined as A) any substance designated pursuant to section 1321(b)(2)(A) of Title 33, B) any element, compound, mixture, solution, or substance designated to section 9602 of this title, C) any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the RCRA Act of 1976, as amended, D) any toxic pollutant listed under section 1317(a) to Title 33, E) any hazardous air pollutant listed under section 112 of the Clean Air Act, and F) any imminently hazardous chemical substance or mixture with respect to which the Administrator of the EPA has taken action pursuant to section 2606 of Title 15.
- *Historical REC*: A previous release of hazardous substances or petroleum products affecting the Subject Property that has been addressed to the satisfaction of the applicable regulatory authority or authorities and meeting unrestricted use criteria established by the applicable regulatory authority or authorities without subjecting the Subject Property to any controls (for example, activity and use limitations or other property use limitations). HRECs are not considered to be RECs.
- *Material Threat:* An obvious threat which is likely to lead to a release and that, in the opinion of the EP, would likely result in impact to the public health or the environment.
- *Migration*: The movement of hazardous substances or petroleum products in any form including, for example, solid and liquid at the surface or subsurface, and vapor in the subsurface.
- *Petroleum Product:* Petroleum including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under Subparagraphs (A) through (F) of 42 U.S.C. 9601 (14), natural gas liquids, liquefied natural gas, and synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).
- *Practically Reviewable:* Information is provided by the source in a manner and in a form that, upon examination, yields information relevant to the Subject Property without the need for extraordinary analysis of irrelevant data.
- *Subject Property:* The real property that is the subject of the environmental assessment described in ASTM Practice E1527. The real property boundaries are defined by the User and boundaries may not be consistent with a legal parcel.
- *Reasonably Ascertainable:* Information that is (1) publicly available, (2) obtainable from its source within reasonable time and cost constraints, and (3) practically reviewable.
- *Recognized Environmental Condition*: (1) the presence of hazardous substances or petroleum products in, on, or at the Subject Property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on, or at the Subject Property due to a release or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on, or at the Subject Property under conditions that pose a material threat

of a future release to the environment. For the purposes of this definition, "likely" is that which is neither certain nor proved but can be expected or believed by a reasonable observer based on the logic and/or experience of the EP, and/or available evidence, as stated in this report to support the opinions given herein. The term REC is not intended to include de minimis conditions.

- *Release*: Spilling, leaking, pumping, pouring, emitting, discharging, injecting, escaping, leaching, dumping, or disposing into the environment.
- *Significant Data Gap:* A data gap that affects the ability of the environmental professional to identify a recognized environmental condition.

APPENDIX A

Figures
Site Location Map
Site Features Map

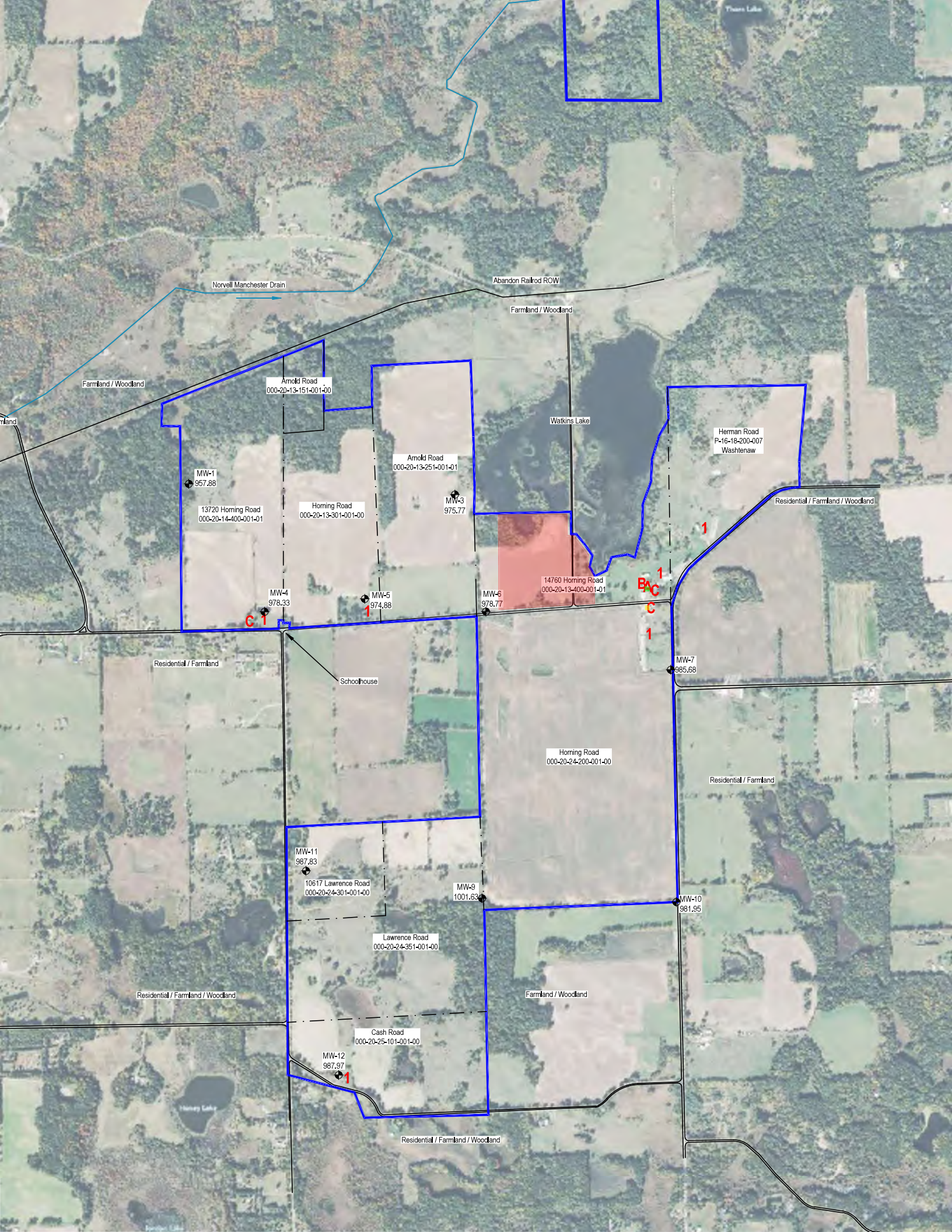


14 Parcels

Norvell Township, MI

Site Location Map

Created for: Edw. C. Levy Co.
Created by: RMH, September 18, 2024, ASTI Project A23-2691.00


Norvell Manchester Drain
Abandon Railrod ROW
Farmland / Woodland
Farmland / Woodland
Arnold Road
000-20-13-151-001-00
Watkins Lake
Herman Road
P-16-18-200-007
Washtenaw
Arnold Road
000-20-13-251-001-01
MW-1
957.88
MW-3
975.77
13720 Horning Road
000-20-14-400-001-01
Horning Road
000-20-13-301-001-00
Residential / Farmland / Woodland
14760 Horning Road
000-20-13-400-001-01
MW-4
978.33
MW-5
974.88
MW-6
978.77
Residential / Farmland
Schoolhouse
MW-7
985.68
Horning Road
000-20-24-200-001-00
Residential / Farmland
MW-11
987.83
10617 Lawrence Road
000-20-24-301-001-00
MW-9
1001.63
MW-10
981.95
Lawrence Road
000-20-24-351-001-00
Residential / Farmland / Woodland
Farmland / Woodland
Cash Road
000-20-25-101-001-00
MW-12
987.97
Residential / Farmland / Woodland

APPENDIX B

Site Photographs

PHOTO LOG

14 Parcels, Norvell Township and Manchester Township, Michigan

	Photo 1. Example storage building (14950 Horning)
	Photo 2. Fuel tanks observed at 14950 Horning
	Photo 3. Fertilizer tank at 14950 Horning

ASTI Project No. A23-2691.01
January 28, 2025
Photographed By Bailey Bishop and Aliya Spotts

PHOTO LOG

14 Parcels, Norvell Township and Manchester Township, Michigan

	Photo 4. Example house (14950 Horning)
	Photo 5. Example fill port and vent pipes for the fuel oil tanks (14950 Horning)
	Photo 6. Example silos

ASTI Project No. A23-2691.01
January 28, 2025
Photographed By Bailey Bishop and Aliya Spotts

PHOTO LOG

14 Parcels, Norvell Township and Manchester Township, Michigan

	Photo 7. Area where a former underground storage tank was located, facing north
	Photo 8. Example of covered storage located south of 14950 Horning
	Photo 9. Mineral spirits and heavy-duty engine oil

ASTI Project No. A23-2691.01
January 28, 2025
Photographed By Bailey Bishop and Aliya Spotts

PHOTO LOG

14 Parcels, Norvell Township and Manchester Township, Michigan

	Photo 10. Foundation of former dwelling around 14760 Horning
	Photo 11. A well location
	Photo 12. The dwelling at 14155 Austin

ASTI Project No. A23-2691.01
January 28, 2025
Photographed By Bailey Bishop and Aliya Spotts

PHOTO LOG

14 Parcels, Norvell Township and Manchester Township, Michigan

	Photo 13. Abandoned barns and silo foundation
	Photo 14. AST in northernmost barn at 14155 Austin Road
	Photo 15. A well

ASTI Project No. A23-2691.01
January 28, 2025
Photographed By Bailey Bishop and Aliya Spotts

PHOTO LOG

14 Parcels, Norvell Township and Manchester Township, Michigan

	Photo 16. Previous orchard at 14155 Austin Road
	Photo 17. A pond/lowland area
	Photo 18. Example of agricultural field

ASTI Project No. A23-2691.01
January 28, 2025
Photographed By Bailey Bishop and Aliya Spotts

PHOTO LOG

14 Parcels, Norvell Township and Manchester Township, Michigan

	Photo 19. Example field
	Photo 20. Secured entrance for parcel 000-20-12-276-001-00
	Photo 21. Horizontal silo

PHOTO LOG

14 Parcels, Norvell Township and Manchester Township, Michigan

	Photo 22. Storage in the horizontal silo
	Photo 23. Water box for cattle
	Photo 24. Abandoned barns and monitoring well north of Cash Road

ASTI Project No. A23-2691.01
January 28, 2025
Photographed By Bailey Bishop and Aliya Spotts

PHOTO LOG

14 Parcels, Norvell Township and Manchester Township, Michigan

	Photo 25. Collapsed building
	Photo 26. Well near previous dwelling and south adjoining residence and animal farm
	Photo 27. Example of pole-mounted transformer

ASTI Project No. A23-2691.01
January 28, 2025
Photographed By Bailey Bishop and Aliya Spotts

PHOTO LOG

14 Parcels, Norvell Township and Manchester Township, Michigan

	Photo 28. Typical adjoining farmland
	Photo 29. Adjoining lake and waterfowl refuge
	Photo 30. Typical adjoining dwelling and farmland

ASTI Project No. A23-2691.01
January 28, 2025
Photographed By Bailey Bishop and Aliya Spotts

APPENDIX C

User-Provided Information and Interview Documentation
Owner Questionnaire

ASTI Environmental Phase I ESA

OWNER QUESTIONNAIRE

Respondent Name: Gary Trolz **Signature:** G. Trolz

Time of Association with the Property: ~1960s **Title** GT Ranch.

Date: 9/16/24

Phone Number and/or Email Address: 517-937-3537

Subject Property Address: 14950 Herning Rd.

Please answer all questions to the best of your knowledge and in good faith.

	Question	Response		Comment (Please provide for Yes responses)
		Yes	No	
1	Is the Property currently used for manufacturing or industrial use?	☐	☑	
2	Is an adjacent property currently used for manufacturing or industrial use?	☐	☑	
3	Has the property or adjoining property been used for manufacturing or industrial purposes in the past?	☐	☑	Not to his knowledge
4	To the best of your knowledge, has the property been used as a gas station, motor repair facility, print shop, dry cleaner, photo lab, junkyard, recycling facility, or landfill?	☐	☑	
5	To the best of your knowledge, has an adjacent property been used as a gas station, motor repair facility, print shop, dry cleaner, photo lab, junkyard, recycling facility, or landfill?	☐	☑	
6	Are there any pesticides, herbicides, automotive or industrial batteries, paints or other chemicals stored on the property (exclude those <5 gallons unless in large quantities of >25 gallons total)?	☑	☐	
7	Have pesticides, herbicides, or other agricultural chemicals been stored, mixed, or applied to the property?	☑	☐	
8	Are there any plastic or metal drums (typically 55-gallon) located on the property?	☑	☐	fuel tanks 1,000 gal each.
9	Has fill dirt from an offsite source been placed on the property that may be contaminated or from an unknown source?	☐	☑	
10	Has any construction debris, substances identified as hazardous substances, unidentified wastes, tires, batteries, or other wastes been dumped above grade, buried, or burned at the property?	☐	☑	Tires are stored in bunker
11	Is there any soil on the property that has been obviously stained?	☐	☑	
12	Does the property discharge waste water, on or adjacent to the property, other than storm water into a sewer system or retention/detention pond?	☐	☑	water runs off into pond
13	Is the property served by a private well or non-public water system? Include potable and irrigation wells.	☑	☐	Irrigation is drawn from the lake Pointed out 2 wells
14	Do you know of former water (potable or irrigation) wells associated with the property?	☑	☐	
15	Is there currently or has there been in the past a septic system for the property?	☑	☐	
16	Are there or have there been in the past any pits, ponds, or lagoons associated with waste treatment or disposal on the property?	☑	☐	Runoff pond on the Southern side from cow feed. /natural low spot.

	Question	Response		Comment (Please provide for Yes responses)
		Yes	No	
17	Are there storage tanks, above ground or underground, located on the property?	☐	☑	Not to his knowledge
18	In the past, have there been storage tanks, above ground or underground, located on the property?	☑	☐	1,000 gal one by the Horning Rd - 2 found.
19	Have polychlorinated biphenyls (PCBs) been used in electrical transformers, capacitors, or other equipment at the property?	☐	☑	UnKnown
20	Is there a transformer on the property that is not owned by a public or private utility company for which there are no records indicating the absence of PCBs?	☐	☑	
21	Do you have any knowledge of environmental liens or government notification relating to past or recurrent violations of environmental laws with respect to the property?	☐	☑	
22	Are there currently or have there been in the past any floor drains, sumps, and/or oil-water separators on the property?	☐	☑	
23	If yes, to question 22, do the drains/sumps discharge to the sewer system?	☐	☐	
24	Are you aware of the presence of asbestos-containing materials?	☐	☑	
25	Are you aware of the presence of lead-based paint?	☐	☑	Might be in the house
26	Is there an asbestos and/or lead-based paint Operations & Maintenance Program in place?	☐	☑	
27	Has the water ever been tested for lead?	☑	☐	Not sure when
28	Has radon testing ever been conducted?	☐	☑	
29	Is there now or has there been evidence of mold or mildew present?	☑	☐	
30	Are there any prior environmental investigations or helpful documents available? -Environmental site assessment reports; -Environmental site investigation reports; -Environmental compliance audit reports; -Environmental permits (for example, solid waste disposal permits, hazardous waste disposal permits, wastewater permits, NPDES permits, underground injection permits, air permits); -Registrations for underground storage tanks and aboveground storage tanks; -Registrations for underground injection systems; -Safety data sheets; -Community right-to-know plans; -Safety plans; preparedness and prevention plans; spill prevention, countermeasure, and control plans; facility response plans, etc.; -Reports regarding hydrogeologic conditions at the subject property or surrounding area; -Reports regarding any self-directed or other cleanup activities conducted at the subject property; -Notices or other correspondence from any government agency relating to past or current violations of environmental laws with respect to the subject property or relating to environmental liens encumbering the subject property; -Hazardous waste generator notices or reports; -Geotechnical studies; -Risk assessments; and -Recorded AULs.	☑	☐	Env assessment done when father passed.

	Question	Response		Comment (Please provide for Yes responses)
		Yes	No	
31	Do you know of (1) any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, at, or from the subject property; (2) any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, at, or from the subject property; and (3) any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.	☐	☑	
32	Please provide a brief description of the historical use of the property including construction dates, past operations, former buildings, etc.			

ASTI Environmental - Fax Number 810-225-3800 Phone Number 810-225-2800

APPENDIX D

Regulatory Records Documentation
Assessing Department and Building Department Records
Database Reports (EDR)
EGLE RRD Perfected Lien Database Search Results
EGLE and LARA Files
County Responses
Fire Department Response
Zoning Department Records

FARM ASSESSMENT RECORD

000-20-12-101-001-00

000-20-12-101-001-00
GLYNN TROLZ & ASSOC INC
3450 ANN ARBOR RD
JACKSON MI 49202

SECTION

Insp 4/20/11 [illegible]

PHYSICAL AND ECONOMIC FACTORS

Road BLACKTOP - 14155 AUSTIN RD

Center (name) _____ miles

(name) _____ miles

(type) _____ miles

Electricity ✓ ☐ Telephone ☐ Gas Line

AUSTIN RD

BUSS RD

FRUIT

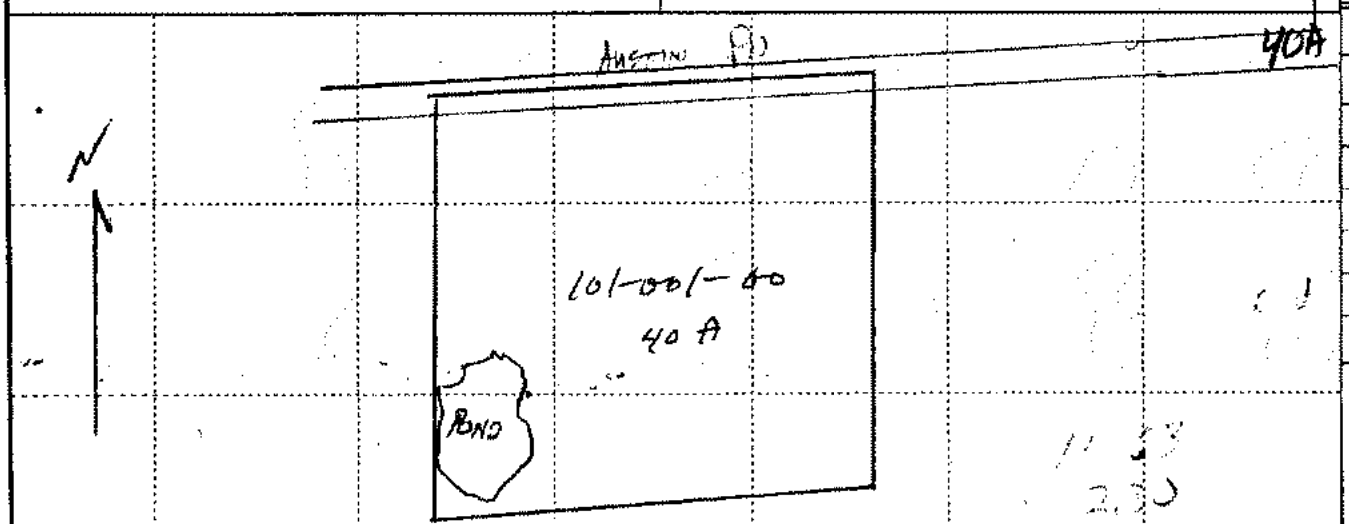
Type	Acres or No.	Age	Rate	Total
IMPROVED	40 A		$	$

Total Fruit $

LAND VALUE

Area No.	No. Acres	Value/A.	Total
	40.00	$	$
RW	1.00		
	39.00	100	[illegible]

Total Land $



SUMMARY OF APPRAISAL

TOTAL LAND . . . . . $

~~TOTAL FRUIT~~ WELL & DEPTH . .

TOTAL BUILDINGS. . . . . [illegible]

TOTAL APPRAISED VALUE . . . . . $ [illegible]

Board of Review	1977	1978	1979	1980
LAND	22,600	23,600	24,500	26,500
BUILDINGS				
Total				
State Tax Commission	81	82	86	87
LAND	30,000	34,000	33,000	32,000
BUILDINGS				
Total	88	89	90	91

Type	Class	Acres
Cropland and untillable pasture	1	
	2	
	3	
	4	

1. Type	
✓	Single Family
2. Frame	
	Wood
✓	
3. Exterior	
	Wood
✓	Aluminum
	Brick
	Block
4. Roof	
	Hip
✓	Gable
	Front Overhang
	Other Overhang
	Eavestrough
	Chimney Type:
	Brick / Block
	Stone / Metal
✓	Asphalt Shingles
5. Windows	
	Many / Few
	Large / Small
✓	Wood Sash
	Metal Sash
	Double Hung
	Hor. Sliding
	Double Glass
	Complete Trim
	No Inside Trim
	Storms & Scr.
6. Year Built:	OLD
7. Year Remod.	[illegible]
8. Number Rooms	
	Basement
	1st Floor
	2nd Floor
	Baths
9. Insulation	
	Ceiling
	Entire
	None

10. Floor Support	
	Joists " x ", " o.c.
	Unsupported Length ft.
	Sill Plate: ☐ Yes ☐ No
	Diag. Sub-Floor " x "
	Ply. Sub-Floor " x "
	Center Support
11. Basement & Foundation	
	Crawl Space s.f.
	Slab House s.f.
	Basement s.f.
	Height to Joists ft.
	Concrete Block "
	Concrete Walls "
	Concrete Floor
	Asphalt Tile s.f.
	Recreation Room s.f.
12. Heating & Air Conditioning	
	Gas - Forced Warm Air
	Oil - Forced Warm Air
	Gas / Oil / Coal
	Wall Fur. / Floor Fur.
	Stove or Space Heat
	Steam Radiators
	Forced Warm Water
	AIR CONDITIONER tons
	FIREPLACE ft.
	[illegible]
	[illegible]
13. Interior	
	Trim & Decoration:
	Elab. / Ord. / Min.
	Size of Closets:
	Large / Ord. / Small
	Number of Closets:
	Many / Ord. / Few
	No. & Qual. Electric Fixtures:
	Ex. / Ord. / Min.
	No. Electric Outlets:
	Many / Ord. / Few
	Foyer
	Kit. Fl.
	Other Fl.
	Drywall
	Plaster
	Coved Ceilings
	Paneled Wainscot
	Hardware Qual.

14. Plumbing	
/	No. of Baths $
	Cer. Tile Walls
	Cer. Tile Floor
	Plastic Tile Walls
	Extra Stool
	Extra Wash Bowl
	Water Heater:
	Gals. / Gas / Elec.
15. Built-In Items	
	Oven Range $
	Disposal
	Hood & Fan
	Dishwasher
	Refrigerator
	Incinerator
	Vanities
	Cupboard Length
	Cupboard Quality
16. Garage	
	Year Built
	Attached / Separate
	Cars / Condition
	Wide / Deep
	Walls
	Floor
	Doors
	Common Wall
	Other Walls
	Ceiling

17. Porches		
Wide	Deep	Type
5	10	CCEP
8	10	"
9	28	WCP
[illegible]	6	CPP
[illegible]	[illegible]	"

Priced by
Date
Checked By
Date

CLASS CD Size for Rates 11 [illegible]

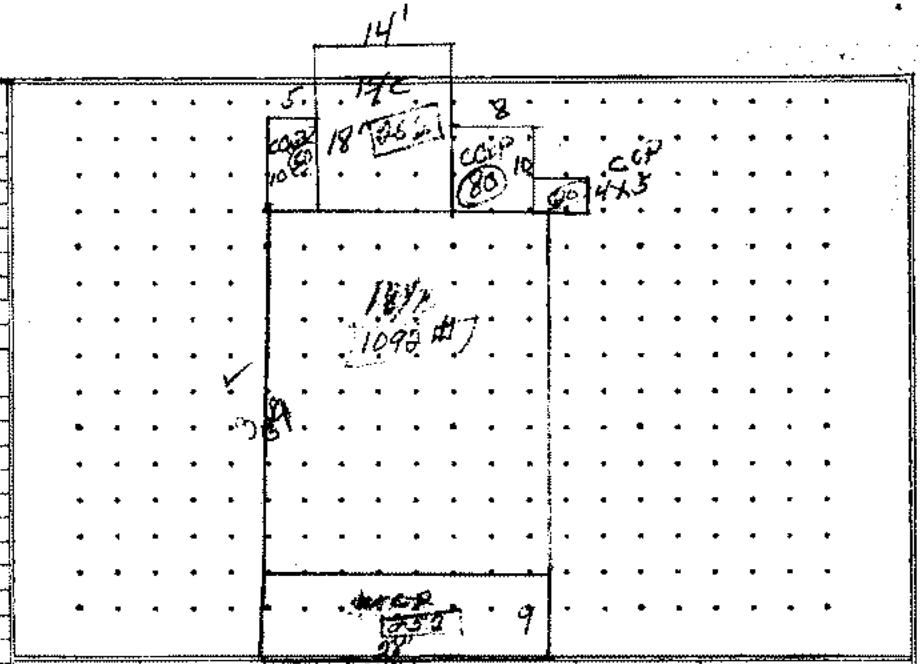
Typical Classes of Other Houses in this Neighborhood

Neighborhood is ☐ Improving ☐ Stable ☐ Declining

Condition for Age

Effective Age

BARNS
74 x 35
19 x 40
1/2 x 77
[illegible]
18 x 12 [illegible]
Corn Cribs
30 x 60 [illegible]



ITEM OR NO. STORIES	SQUARE FEET	UNIT COST	BASE VALUE	DEPR. & OBSOL. % GOOD	DEPR. VALUE
1 BS/B	1092	$ 4	$		$
1S/C	252				
# CCEP	130				
16 WCP	252				
CPP	44	[illegible]	[illegible]		
			[illegible]	[illegible]	[illegible]

Total Depr. Value $ _____

~~Econ. Cond.~~ Factor x _____ %

True Cash Value $ [illegible]

COUNTY: Jackson

Township: Liberty
Village:
City:

RESIDENTIAL 006-2072-101-001-00

GRANTOR	GRANTEE	SALE PRICE	SALE DATE	INST. TYPE	TERMS OF SALE	LIBER & PAGE	VERI-FIED?
Glynn Trolz & Assoc							

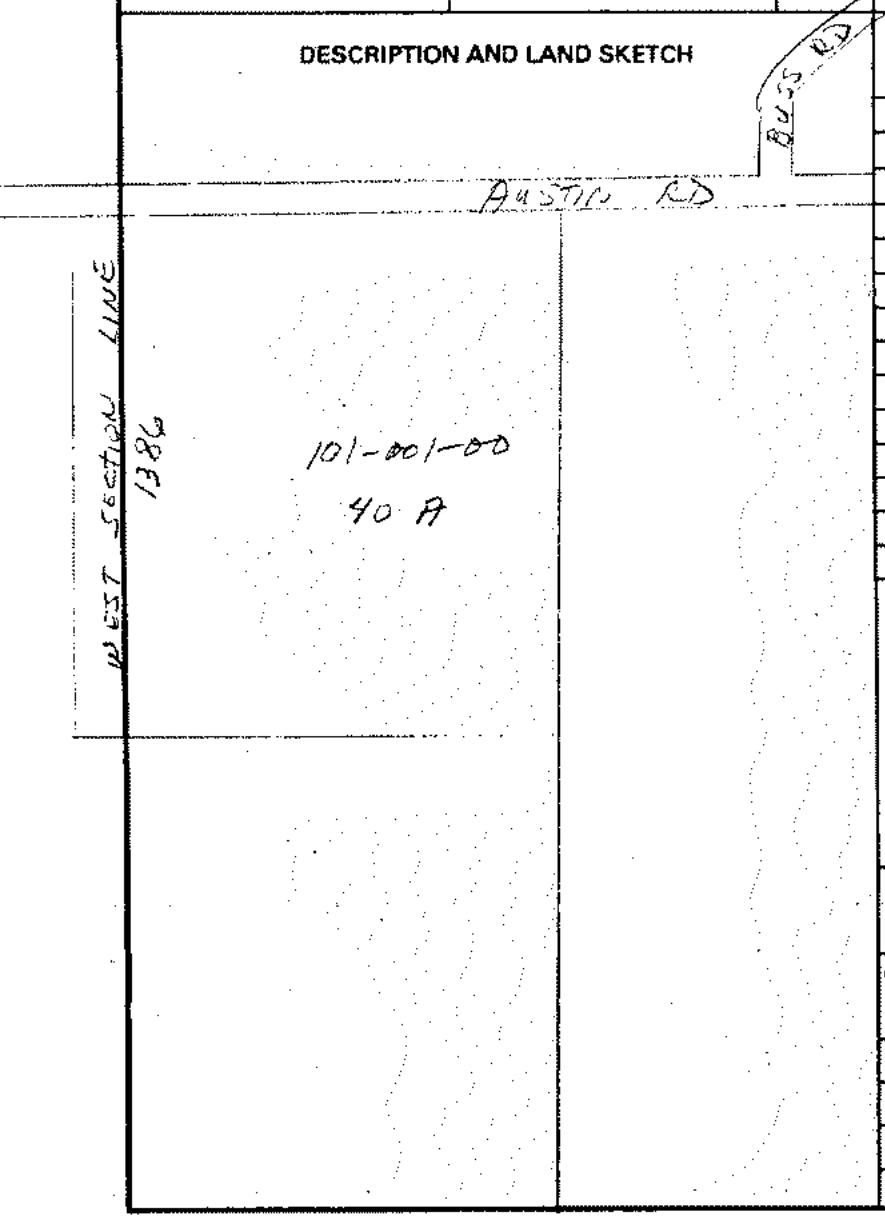
PERMANENT PARCEL NUMBER

COUNTY	TWSP	SECTION	1/4 OR SUBD.	PARCEL

Property Address 1455 Austin Rd

Building or Alteration Permit	Date	Amount
		$

DESCRIPTION AND LAND SKETCH



PUBLIC IMPROVEMENTS		TOPOGRAPHY OF SITE	
	Dirt Road	✓	Level
	Gravel Road		Rolling
✓	Paved Road		Low
	Curb		High
	Sidewalk		Landscaped
	Water		Swamp
	Sanitary Sewer		Wooded
	Electric		Pond
	Gas		Waterfront
	Storm Sewer		

ENHANCING INFLUENCE

DETRACTING INFLUENCE

LAND VALUE COMPUTATION

Lot Size	Depth Factor	Equivalent Frontage	Rate	True Cash Value
40 A				$
- 1 a/w				
39 A				

LAND IMPROVEMENT	NEW	%	
Paved Drive			
Fence			
Landscaping			

TOTAL LAND PLUS IMPROVEMENTS	$
TOTAL BUILDINGS	$
TOTAL TRUE CASH VALUE	$

Person Interviewed

Jane 6/17/11

Examined by Date

PROPERTY TYPE

	Residential	✓	Acreage		
	Resort		Platted		
	Suburban		Improved		Vacant

Year	Assessed Valuation	Board of Review	Tax Tribunal
	$	$	$

SEE APEX DRAWING

TYPE
- ✓ Single Family
- Wood Frame
- Year Built: | Year Remod.
- Number Rooms
- Basement
- 1st Floor
- 2nd Floor
- Baths
- Total Bedrooms

1. EXTERIOR $
- ✓ Wood, Shingle
- Aluminum, Vinyl
- Brick
- Block
- Stone
- ✓ Insulation

2. WINDOWS $
- Many | Large
- ✓ Avg | Avg
- Few | Small
- ✓ Wood Sash
- Metal Sash
- Vinyl Sash
- ✓ Double Hung
- Horiz. Sliding
- Casement
- Double Glass
- ✓ Storms & Screens
- Patio Doors

3. ROOF
- Gable | Gambrel
- Hip | Mansard
- Flat
- Eavestrough
- ✓ Asphalt Shingles
- Insulation
- Chimney type Conc
- Front overhang "
- Other overhang "

4. INTERIOR
- ✓ Drywall | Plaster
- Paneled
- Trim & Decoration: Ex. | ✓ Ord. | Min
- Size of Closets: Lg. | ✓ Ord. | Small
- Number of Closets: Many | Ord. | ✓ Few
- Doors | Solid | ✓ H.C.

5. FLOORS
- Kitchen Fl. Vyrah
- Other Carpet

6. CEILINGS
- ✓ Drywall | Plaster
- Tile | Suspended

7. EXCAVATION
- Basement S.F.
- Crawl S.F.
- Slab S.F.
- Height to Joists F.T.

8. BASEMNT., WALLS & FLOOR
- Concrete Block 10 "
- Poured Conc. "
- Treated Wood
- Concrete Floor

BASEMENT $

9. FINISH
- Wall Finish
- Floor Finish
- Ceiling Finish
- Walkout
- Insulation

10. FLOOR SUPPORT
- Joists "x ", "o.c.
- Unsupported Length ft
- Sill Plate: ☐ Yes ☐ No
- Diag. Sub-Floor "x "
- Ply. Sub-Floor "
- Center Support

11. HEATING & AIR COND. $
- ✓ Gas | Oil | Elec.
- Wood | Coal | Steam
- Forced Warm Air
- Forced Warm Water
- Stove or Space Heat
- Heat Pump/Air
- Heat Pump/Water
- Wall Fur. | Flr. Fur.
- No Heat | 1st Fl. | 2nd
- Central Air Cond. Tons

12. ELECTRIC
- ✓ Amps Service
- No. & Qual. Elec. Fixtures: Ex. | Ord. | ✓ Min.
- No. Electric Outlets: Many | Ord. | ✓ Few

13. PLUMBING $
- 1 No. Baths
- Ceramic Tile Floor
- Ceramic Tile Wainscot
- Tub Alcove
- Exhaust Fan
- Extra Stool | Extra Lav
- Fiberglass Bath Unit
- Separate Shower
- Water Softener | Owned | Leased
- Water Heater | Gallons | Gas | Elec.

14. $
- WATER | Public | ✓ Well
- SEWER | Public | ✓ Septic

15. BUILT-IN ITEMS $
- Oven | Range
- Microwave
- Hood & Fan, Vented | Yes | No
- Dishwasher | Disposal
- Trash Compactor
- Fireplace | Foundation | Pre-Fab
- Free Standing Fireplace
- Chimney | 1 Sty. | 2 Sty. | Inside | Outside
- Cupboard Length | Quality

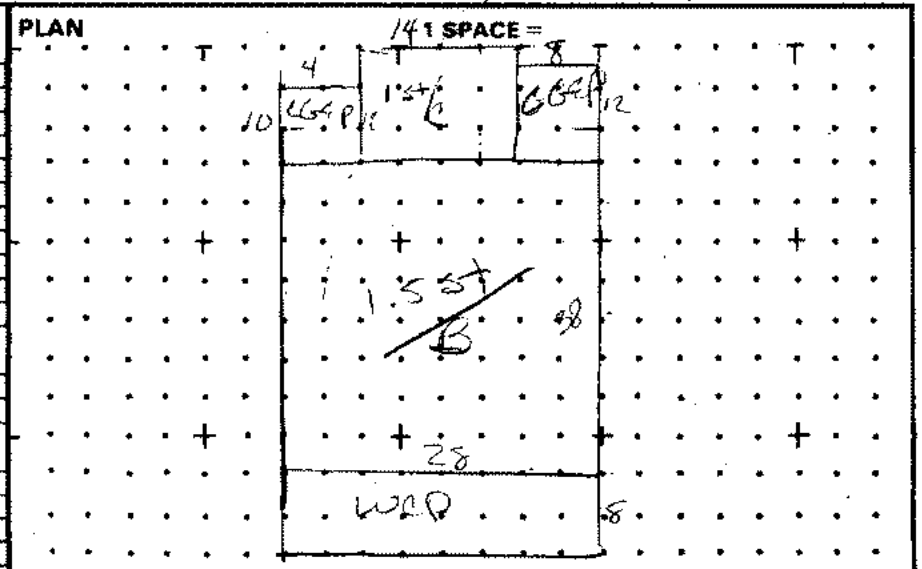
16. PORCHES

Wide	Deep	Type
28	8	WAP
12	8	CGEP
10	4	CGEP

Priced by
Date
Checked by
Date
Size for Rates S.F. **CLASS** CD
Typical Classes of Other Houses in this Neighborhood
Neighborhood is ☐ Improving ☐ Stable ☐ Declining
Condition for Age Effective Age

17. GARAGE/CARPORT
- Year Built
- Attached | Separate
- Cars | Condition
- Wide | Deep
- Exterior Wall
- Floor | Roof
- Doors
- Common Wall
- Wall Finish
- Ceiling

PLAN 14 1 SPACE =



ITEM	SQUARE FEET / LINEAL FEET	UNIT COST	BASE COST	COUNTY MULT.	DEPR. % GOOD	DEPRECIATED COST

Barn 12 x 18
Barn 20 x 37
Barn 40 x 26
Barn 70 x 30

TOTAL BASE COST
COUNTY MULTIPLIER
COST NEW

Total Depr. Cost $ _____
E.C.F. x _____
True Cash Value $ _____

ORDER BY FORM NO. ML M293 (REV. 6/86) RESIDENTIAL ASSESSMENT RECORD
FROM: DOUBLEDAY BROS. & CO., KALAMAZOO, MICHIGAN

FORM APPROVED BY STATE TAX COMMISSION

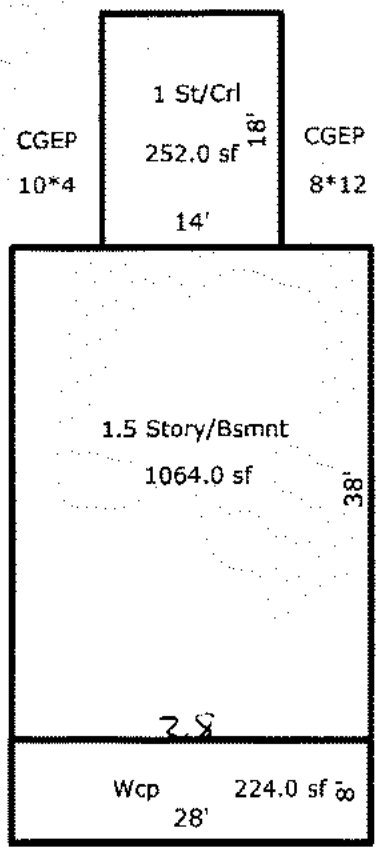
SKETCH/AREA TABLE ADDENDUM

File No 000-20-12-101-001-00

SUBJECT

Property Address 14155 AUSTIN RD
City County JACKSON State MI Zip
Owner GLYNN TROLZ & ASSOC INC
Client
Appraiser Name

IMPROVEMENTS SKETCH



Barn 18*37
70*30

Shed
12*18

Barn
26*40

Scale: 1 = 15

AREA CALCULATIONS

AREA CALCULATIONS SUMMARY

Code	Description	Factor	Net Size	Perimeter	Net Totals
GLA1	1.5 Story/Bsmnt	1.00	1064.0	132.0	
	1 St/Crl	1.00	252.0	64.0	1316.0
001	Wcp	1.00	224.0	72.0	224.0

Comment Table 1

Comment Table 2

Comment Table 3

Net LIVABLE Area (rounded w/ factors) 1316

Print This Page Zoom to Result Save This Page

Jackson County GIS - Interactive Mapping Application

Information is current as of April 2010.

Record For: GLYNN TROLZ & ASSOC INC
Parcel Number: 000-20-12-101-001-00

Parcel Information:

Parcel Number: 000-20-12-101-001-00
School District: COLUMBIA SCHOOL
Property Class: 101

Owner Information:

Name: GLYNN TROLZ & ASSOC INC
Name 2:
Address: 3460 ANN ARBOR RD
City/State/Zip Code: JACKSON/ MI/ 49202

Property Information:

Address: 14155 AUSTIN RD
City/State/Zip Code: / MI
Acreage: 40
Status: Active

Homestead Information:

Homestead Percent: 100

Values:

Liber and Page:

Government Unit: Norvell	**Tax Unit:** Norvell
Assessed Value (2010): $127,380	**Taxable Value (2010):** $53,637
Assessed Value (2009): $130,030	**Taxable Value (2009):** $53,799
Assessed Value (2008): $128,550	**Taxable Value (2008):** $51,532
Assessed Value (2007): $150,299	**Taxable Value (2007):** $50,374

Legal Description:

NW 1/4 OF NW 1/4. SEC 12 T4S R2E 40A

Some Legal Descriptions are longer then the space available to list on the website. Please contact the Equalization Department at (517) 788-4378 if you suspect the Legal Description to be incomplete.

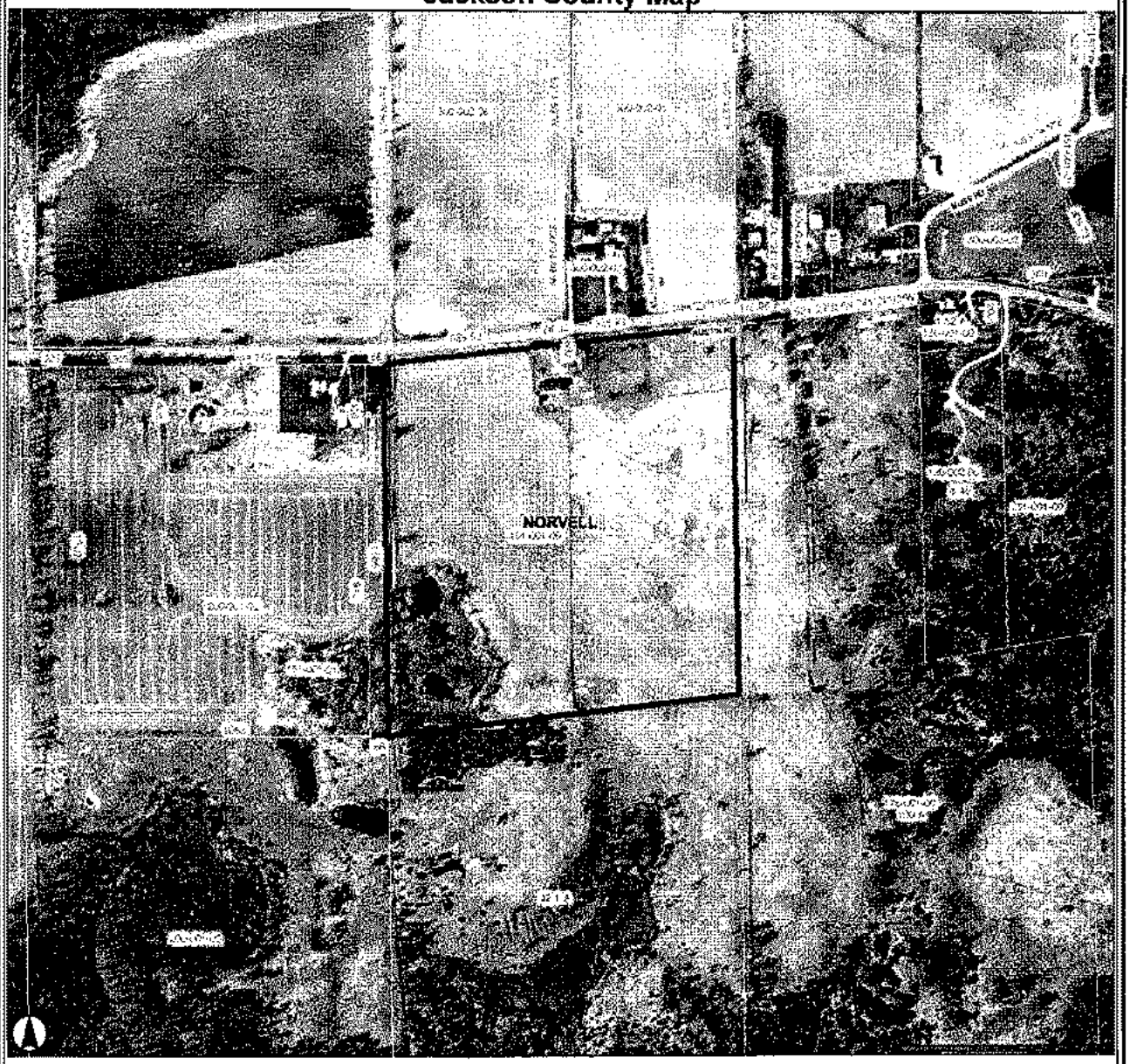
Disclaimer: Jackson County makes no representation, warranty or guarantee as to the content, accuracy, currency or completeness of the information provided. Jackson County explicitly disclaims any representations, warranties and guarantees, including, without limitation, the implied warranties of merchantability and suitability.

14155 Austin. (house on it)

#000-20-12-101-001-00

Jackson County GIS - Interactive Mapping Application

Jackson County Map



Legend

- Remonuments
- Census 2000 Urban Areas
- Census 2000 Blocks
- Census 2000 Block Groups
- Census 2000 Tracts
- Major Road
- Section
- Quarter Section
- School
- Polling Locations
- Parcel

Reference Line

- Condominium Reference Line
- Landlock
- Parcel Reference Line
- Subdivision Reference Line
- Village Reference Line

Boundary

- Condominium
- Drain Centerline
- Drain Easement
- Highway Right of Way
- Hydrology
- Railroad Right of Way
- Right of Way Easement
- Road Right of Way
- Subdivision
- Utility Easement
- Vacated Right of Way

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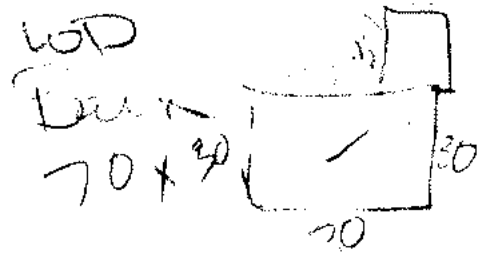
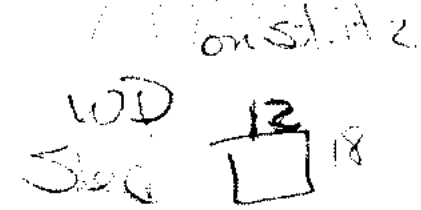
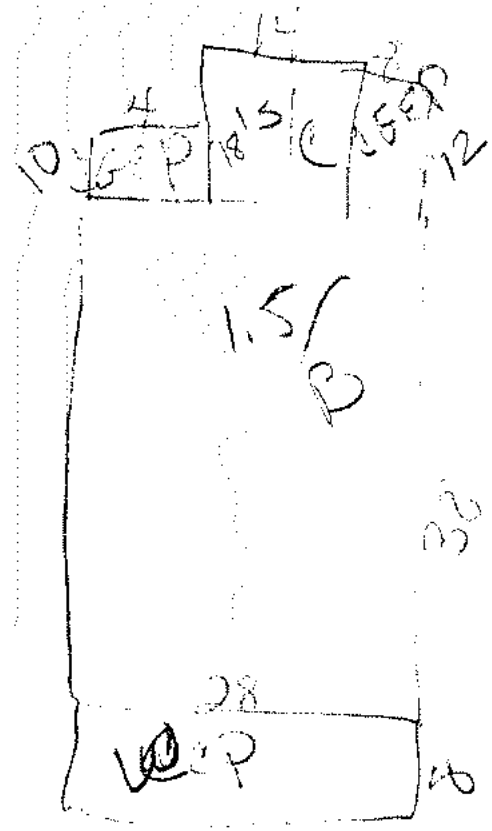
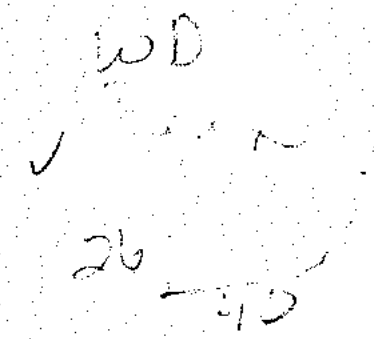
3.36 Swamp
2 A H/S
34.64 Tilled


WD
Dwn
70 x 30
30
70


on sl. 1 2
WD
Slab
12
18


4
10
18
15
C
12
1.5
B
28
WCP
40


WD
26

Parcel Number: 000-20-12-101-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 04/30/2012

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
14155 AUSTIN RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD
JACKSON MI 49202

Description
NW 1/4 OF NW 1/4. SEC 12 T4S R2E #

Comments/Influences

Class: Agricultural | Zoning: RES

School: District 38040

P.R.E. 100% / /

Map #:

2012 Est TCV 250,908 TCV/TFA: 135.77

Building Permit(s)	Date	Number	Status

X Improved | Vacant

Public Improvements

	Dirt Road
	Gravel Road
X	Paved Road
	Storm Sewer
	Sidewalk
	Water
	Sewer
	Electric
	Gas
	Curb
	Street Lights
	Standard Utilities
	Underground Utils.

Topography of Site

X	Level
	Rolling
	Low
	High
	Landscaped
	Swamp
	Wooded
	Pond
	Waterfront
	Ravine
	Wetland
	Flood Plain

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Rate Table ROAD R/W		1.00 Acres		0	100			
Rate Table +20 - 40 ACRES		33.64 Acres		4250	100			142,970
Rate Table BUILDING SITE		2.00 Acres		10000	100			20,000
Rate Table SW/WW - 10-40A		3.36 Acres		950	100			3,192
		40.00 Total Acres			Total Est. Land Value =			166,162

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2012	83,080	42,370	125,450			56,020C
2011	80,000	43,830	123,830			54,548C
2010	82,000	45,380	127,380			53,637C
2009	82,000	48,030	130,030			53,799C

Who	When	What
JG	04/30/2011	Data Ent
JG	04/29/2011	Inspecte

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Licensed to: Norvell Township, Jackson County

Information herein deemed reliable but not guaranteed

Building Type

X Single Family
Mobile Home
Town Home
Duplex
A-Frame

X Wood Frame

Building Style:
1 1/2 STORY

YearBuilt 0 | Remodeled

Condition for Age:
Average

Room List

Basement
1st Floor
2nd Floor
Bedrooms

(1) Exterior

X Wood/Shingle
Aluminum/Vinyl
Brick

Insulation

(2) Windows

X Many Ave. Few | X Large Ave. Small

X Wood Sash
Metal Sash
Vinyl Sash
X Double Hung
Horiz. Slide
Casement
Double Glass
Patio Doors
Storms&Screens

(3) Roof

X Gable Hip Flat | Gambrel Mansard Shed

X Asphalt Shingle

Chimney: Block

(3) Roof (cont.)

X Eavestrough
X Insulation
12 Front Overhang
12 Other Overhang

(4) Interior

X Drywall Paneled | Plaster Wood T&G

Trim & Decoration

Ex | X Ord | Min

Size of Closets

Lg | X Ord | Small

Doors | Solid | X H.C.

(5) Floors

Kitchen: Linoleum
Other: Carpeted
Other:

(6) Ceilings

X Drywall

(7) Excavation

Basement: 1064 S.F.
Crawl: 252 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement

Conc. Block
Poured Conc.
Stone
Treated Wood
Concrete Floor

(9) Basement Finish

Recreation SF
Living SF
Walkout Doors
No Floor SF

(10) Floor Support

Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling

X Gas Wood | Oil Coal | Elec. Steam

X Forced Air w/o Ducts
Forced Air w/ Ducts
Forced Hot Water
Electric Baseboard
Elec. Ceil. Radient
Radiant (in-floor)
Electric Wall Heat
Space Heater
Wall/Floor Furnace
Forced Heat & Cool
Heat Pump
No Heating/Cooling

Central Air
Wood Furnace

(12) Electric

120 Amps Service

No./Qual. of Fixtures

Ex. | X Ord. | Min

No. of Elec. Outlets

Many | X Ave. | Few

(13) Plumbing

Average Fixture(s)
1 3 Fixture Bath
2 Fixture Bath
Softener, Auto
Softener, Manual
Solar Water Heat
No Plumbing
Extra Toilet
Extra Sink
Separate Shower
Ceramic Tile Floor
Ceramic Tile Wains
Ceramic Tub Alcove
1 Vent Fan

(14) Water/Sewer

Public Water
Public Sewer
1 Water Well
1 1000 Gal Septic
2000 Gal Septic

Lump Sum Items:

(15) Built-ins

Appliance Allow.
Cook Top
1 Dishwasher
Garbage Disposal
Bath Heater
Vent Fan
Hot Tub
Jnvented Hood
Vented Hood
Intercom
Jacuzzi Tub
Jacuzzi repl.Tub
Oven
Microwave
Standard Range
Self Clean Range
Sauna
Trash Compactor
Central Vacuum
Security System

(15) Fireplaces

Interior 1 Story
Interior 2 Story
2nd/Same Stack
Two Sided
Exterior 1 Story
Exterior 2 Story
Prefab 1 Story
Prefab 2 Story
Heat Circulator
Raised Hearth
Wood Stove
Direct-Vented Ga

Class: CD
Effec. Age: 40
Floor Area: 1848
Total Base Cost: 100,274
Total Cost New : 125,343
Total Depr Cost: 75,206
Estimated T.C.V: 67,685

CntyMult
X 1.250
E.C.F.
X 0.900

(16) Porches/Decks

Area	Type
40	CGEP (1 Story)
224	WCP (1 Story)
96	CGEP (1 Story)

(17) Garage

Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
1.5	Story Siding	Mich Bsmnt.	71.79	-4.08	0.00	1064	72,043
1	Story Siding	Crawl Space	56.42	-8.15	0.00	252	12,164

Other Additions/Adjustments	Rate	Size	Cost
(13) Plumbing			
Vent Fan	115.00	1	115
(14) Water/Sewer			
Well, 100 Feet	2550.00	1	2,550
1000 Gal Septic	2895.00	1	2,895
(15) Built-Ins & Fireplaces			
Dishwasher	535.00	1	535
(16) Porches			
CGEP (1 Story), Standard	66.12	40	2,645
WCP (1 Story), Shallow	16.29	224	3,649
CGEP (1 Story), Shallow	38.31	96	3,678
Phy/Ab.Phy/Func/Econ/Comb.%Good= 60/100/100/100/60.0,		Depr.Cost =	75,206
ECF (AGRICULTURAL)	0.900 => TCV of Bldg: 1 =		67,685

Information herein deemed reliable but not guaranteed

Building Type	Barn, General Purpose	Barn, General Purpose	Barn, General Purpose	Barn, General Purpose	
Year Built					
Class/Construction	D,Frame	D,Pole	D,Pole	D,Pole	
Quality/Exterior	Low Cost	Low Cost	Low Cost	Low Cost	
Base Rate/SF	12.20	10.10	10.10	10.10	
# of Walls, Perimeter	4 Wall , 200	4 Wall , 132	4 Wall , 114	4 Wall , 60	
Perimeter Mult.	X 1.028 = 12.54	X 1.111 = 11.22	X 1.182 = 11.94	X 1.507 = 15.22	
Height	16	12		8	
Story Height Mult.	X 1.115 = 13.98	X 1.038 = 11.65	X 0.946 = 11.29	X 0.963 = 14.66	
Heating System	No Heating/Cooling	No Heating/Cooling	No Heating/Cooling	No Heating/Cooling	
Heat Adj./SF					
Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.25 = 17.48	X 1.25 = 14.56	X 1.25 = 14.12	X 1.25 = 18.32	
Final Rate/SF	$17.48	$14.56	$14.12	$18.32	
Length/Width/Area	70 x 30 = 2100	40 x 26 = 1040	37 x 20 = 740	12 x 18 = 216	
Cost New	$ 36,708	$ 15,142	$ 10,447	$ 3,958	
Phy./Func./Econ. %Good	30/80/100 24.0	40/100/100 40.0	30/80/100 24.0	40/100/100 40.0	
Depreciated Cost	$ 8,810	$ 6,057	$ 2,507	$ 1,583	
+ Unit-In-Place Items	$	$	$	$	
Description, Size X Rate X %Good = Cost Itemized ->\ Unit-In-Place ->\ Items ->					
E.C.F.	X 0.90	X 0.90	X 0.90	X 0.90	
Est. True Cash Value	$ 7,929	$ 5,451	$ 2,256	$ 1,425	
Comments:					

Total Estimated True Cash Value of Agricultural Improvements / This Card: 17061 / All Cards: 17061

Information herein deemed reliable but not guaranteed

Norvell Township

106 E. Commercial P.O. Box 188 Norvell, MI 49263 PH: 517-536-4370 FX: 517-536-0110

DEPARTMENT OF BUILDING SAFETY

Issued: 07/16/12
Expires: 01/12/13

Building

PB12-0047

Type of Construction: 5B Occupancy Group: _____ Edition of Code: MICH RES CODE 2009

LOCATION	OWNER	APPLICANT
14155 AUSTIN RD 000-20-12-101-001-00 Lot: Plat/Sub:	GLYNN TROLZ & ASSOC INC 3460 ANN ARBOR RD JACKSON MI 49204 Ph.: Fx.:	Kaidan, Mardy 14155 W Austin Rd. Brooklyn MI 49230 Ph.: (989) 327 6537 Fx.:

Work Description: Re-roof. One inspection.

Stipulations:

Permit Item	Work Type	Fee Basis	Item Total
Contractor Registration	Standard Item	1.00	$15.00
Roof	Standard Item	1.00	$85.00

Permit will become null and void if construction work is not started within six months of date the permit is issued as noted above.

Fee Total:	$100.00
Amount Paid:	$100.00
Balance Due:	**$0.00**

Plan Reviewer

Building Inspector

Ice Guard 7-18-12

Entered 7-23-12 CK

Parcel Number: 000-20-12-101-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 03/29/2010

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
AUSTIN RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD
JACKSON MI 49202

Description
NW 1/4 OF NW 1/4. SEC 12 T4S R2E #

Comments/Influences

Class: Agricultural | Zoning: RES

School: District 38040

P.R.E. 100% / /

Map #:

2010 Est TCV 254,762 TCV/TFA: 134.79

Building Permit(s)	Date	Number	Status

X Improved | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who When What

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Acreage Table 'A'			40.000 Acres		4100	100		164,000
			40.00 Total Acres		Total Est. Land Value =			164,000

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2010	82,000	45,380	127,380			53,637C
2009	82,000	48,030	130,030			53,799C
2008	82,000	46,550	128,550			51,532C
2007	103,750	46,549	150,299			50,374C

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Information herein deemed reliable but not guaranteed

Building Type

X	Single Family
	Mobile Home
	Town Home
	Duplex
	A-Frame
X	Wood Frame

Building Style: 1 1/2 STORY

YearBuilt 0 | Remodeled

Condition for Age: Good

Room List

	Basement
	1st Floor
	2nd Floor
	Bedrooms

(1) Exterior

X	Wood/Shingle
	Aluminum/Vinyl
	Brick
	Insulation

(2) Windows

X	Many Ave. Few	X	Large Ave. Small

	Wood Sash
	Metal Sash
	Vinyl Sash
	Double Hung
	Horiz. Slide
	Casement
	Double Glass
	Patio Doors
	Storms&Screens

(3) Roof

X	Gable Hip Flat		Gambrel Mansard Shed

X	Asphalt Shingle

Chimney: Brick

(3) Roof (cont.)

	Eavestrough
	Insulation
0	Front Overhang
0	Other Overhang

(4) Interior

	Drywall Paneled		Plaster Wood T&G

Trim & Decoration

	Ex	X	Ord	Min

Size of Closets

	Lg	X	Ord	Small

Doors		Solid	X	H.C.

(5) Floors

Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation

Basement: 1092 S.F.
Crawl: 252 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement

	Conc. Block
	Poured Conc.
	Stone
	Treated Wood
	Concrete Floor

(9) Basement Finish

	Recreation SF
	Living SF
	Walkout Doors
	No Floor SF

(10) Floor Support

Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling

X	Gas Wood		Oil Coal	Elec. Steam

	Forced Air w/o Ducts
X	Forced Air w/ Ducts
	Forced Hot Water
	Electric Baseboard
	Elec. Ceil. Radient
	Radiant (in-floor)
	Electric Wall Heat
	Space Heater
	Wall/Floor Furnace
	Forced Heat & Cool
	Heat Pump
	No Heating/Cooling

	Central Air
	Wood Furnace

(12) Electric

Amps Service

No./Qual. of Fixtures

	Ex.	X	Ord.	Min

No. of Elec. Outlets

	Many	X	Ave.	Few

(13) Plumbing

1	Average Fixture(s)
	3 Fixture Bath
	2 Fixture Bath
	Softener, Auto
	Softener, Manual
	Solar Water Heat
	No Plumbing
	Extra Toilet
	Extra Sink
	Separate Shower
	Ceramic Tile Floor
	Ceramic Tile Wains
	Ceramic Tub Alcove
	Vent Fan

(14) Water/Sewer

1	Public Water
1	Public Sewer
	Water Well
	1000 Gal Septic
	2000 Gal Septic

Lump Sum Items:

(15) Built-ins

	Appliance Allow.
	Cook Top
	Dishwasher
	Garbage Disposal
	Bath Heater
	Vent Fan
	Hot Tub
	Unvented Hood
	Vented Hood
	Intercom
	Jacuzzi Tub
	Jacuzzi repl.Tub
	Oven
	Microwave
	Standard Range
	Self Clean Range
	Sauna
	Trash Compactor
	Central Vacuum
	Security System

(15) Fireplaces

	Interior 1 Story
	Interior 2 Story
	2nd/Same Stack
	Two Sided
	Exterior 1 Story
	Exterior 2 Story
	Prefab 1 Story
	Prefab 2 Story
	Heat Circulator
	Raised Hearth
	Wood Stove
	Direct-Vented Ga

Class: CD
Effec. Age: 41
Floor Area: 1090
Total Base Cost: 82,344
Total Cost New : 99,636
Total Depr Cost: 58,785
Estimated T.C.V: 81,712

CntyMult
X 1.210
E.C.F.
X 1.390

(16) Porches/Decks

Area	Type
130	WGEP (1 Story)
252	WCP (1 Story)
44	CPP

(17) Garage

Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
1.5	Story Siding	Mich Bsmnt.	60.55	-3.43	0.00	1092	62,375
1	Story Siding	Crawl Space	47.60	-6.86	0.00	252	10,266

Other Additions/Adjustments	Rate	Size	Cost
(14) Water/Sewer			
Public Water	912.00	1	912
Public Sewer	913.00	1	913
(16) Porches			
WGEP (1 Story), Standard	31.33	130	4,073
WCP (1 Story), Shallow	13.33	252	3,359
CPP , Shallow	10.12	44	445

Phy/Ab.Phy/Func/Econ/Comb.%Good= 59/100/100/100/59.0, Depr.Cost = 58,785
ECF (AGRICULTURAL) 1.390 => TCV of Bldg: 1 = 81,712

Information herein deemed reliable but not guaranteed

Building Type	Barn, General Purpose				
Year Built					
Class/Construction	D,Frame				
Quality/Exterior	Average				
Base Rate/SF	13.57				
# of Walls, Perimeter	4 Wall , 0				
Perimeter Mult.	X 1.000 = 13.57				
Height					
Story Height Mult.	X 0.946 = 12.84				
Heating System	No Heating/Cooling				
Heat Adj./SF					
Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.20 = 15.40				
Final Rate/SF	$15.40				
Length/Width/Area	0 x 0 = 0				
Cost New	$				
Phy./Func./Econ. %Good	94/100/100 94.0				
Depreciated Cost	$				
+ Unit-In-Place Items	$				
Description, Size X Rate X %Good = Cost Itemized ->\ Unit-In-Place ->\ Items ->					
E.C.F.	X 1.20				
Est. True Cash Value	$ 9,050				
Comments:					

Total Estimated True Cash Value of Agricultural Improvements / This Card: 9050 / All Cards: 9050

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-12-101-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 11/03/2009

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
14155 AUSTIN RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD
JACKSON MI 49202

Description
NW 1/4 OF NW 1/4. SEC 12 T4S R2E 40A

Comments/Influences

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Licensed to: Jackson County Equalization

Class: AGRICULTURE | Zoning:

School: COLUMBIA SCHOOL

P.R.E. 100% / /

Map #:

2010 Est TCV 260,060(Value Overridden)

Building Permit(s)	Date	Number	Status

X Improved | | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who	When	What
LB	06/11/2009	Inspecte

Land Value Estimates for Land Table NOR.NORVELL 101

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
NORVELL AG TILL 0-40 A		33.00 Acres			4600	100		151,800
NORVELL AG SWAMP		2.00 Acres			700	100		1,400
NORVELL AG POND		2.00 Acres			3500	100		7,000
NORVELL AG BRUSH/PASTURE		1.00 Acres			3850	100		3,850
NORVELL AG 0-1.99 ACRE		1.00 Acres			15000	100		15,000
NORVELL AG ROW		1.00 Acres			0	100		
		40.00 Total Acres			Total Est. Land Value =			179,050

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2010	89,525	40,505	130,030			53,799C
2009	130,030		130,030			53,799C
2008	128,550		128,550			51,532C
2007	150,299		150,299			50,374C

Information herein deemed reliable but not guaranteed

Building Type

X	Single Family
	Mobile Home
	Town Home
	Duplex
	A-frame

X	Wood Frame

Building Style: 1 1/4 STORY

YearBuilt	Remodeled
1940 EST	

Condition for Age: Average

Room List

	Basement
	1st Floor
	2nd Floor
	Bedrooms

(1) Exterior

X	Wood/Shingle
	Aluminum/Vinyl
	Brick
	Insulation

(2) Windows

X	Many Ave. Few	X	Large Ave. Small

	Wood Sash
X	Metal Sash
	Vinyl Sash
X	Double Hung
	Horiz. Slide
	Casement
	Double Glass
	Patio Doors
X	Storms&Screens

(3) Roof

X	Gable		Gambrel
	Hip		Mansard
	Flat		Shed

X	Asphalt Shingle

Chimney: Brick

(3) Roof (cont.)

X	Eavestrough
	Insulation
0	Front Overhang
0	Other Overhang

(4) Interior

	Drywall
	Paneled
	Plaster
	Wood T&G

Trim & Decoration

	Ex	X	Ord		Min

Size of Closets

	Lg	X	Ord		Small

Doors		Solid	X	H.C.	

(5) Floors

Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation

Basement: 1120 S.F.
Crawl: 252 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement

	Conc. Block
	Poured Conc.
	Stone
	Treated Wood
	Concrete Floor

(9) Basement Finish

	Recreation	SF
	Living	SF
1	Walkout Doors	
	No Floor	SF

(10) Floor Support

Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling

X	Gas		Oil		Elec.
	Wood		Coal		Steam

	Forced Air w/o Ducts
X	Forced Air w/ Ducts
	Forced Hot Water
	Electric Baseboard
	Elec. Ceil. Radiant
	Radiant (in-floor)
	Electric Wall Heat
	Space Heater
	Wall/Floor Furnace
	Forced Heat & Cool
	Heat Pump
	No Heating/Cooling

	Central Air
	Wood Furnace

(12) Electric

	Amps Service

No./Qual. of Fixtures

	Ex.	X	Ord.		Min

No. of Elec. Outlets

	Many	X	Ave.		Few

(13) Plumbing

1	Average Fixture(s)
	3 Fixture Bath
	2 Fixture Bath
	Softener, Auto
	Softener, Manual
	Solar Water Heat
	No Plumbing
	Extra Toilet
	Extra Sink
	Separate Shower
	Ceramic Tile Floor
	Ceramic Tile Wains
	Ceramic Tub Alcove
	Vent Fan

(14) Water/Sewer

	Public Water
	Public Sewer
1	Water Well
1	1000 Gal Septic
	2000 Gal Septic

Lump Sum Items:

(15) Built-ins

	Appliance Allow.
	Cook Top
	Dishwasher
	Garbage Disposal
	Bath Heater
	Vent Fan
	Hot Tub
	Unvented Hood
1	Vented Hood
	Intercom
	Jacuzzi Tub
	Jacuzzi repl.Tub
	Oven
	Microwave
1	Standard Range
	Self Clean Range
	Sauna
	Trash Compactor
	Central Vacuum
	Security System

(15) Fireplaces

	Interior 1 Story
	Interior 2 Story
	2nd/Same Stack
	Two Sided
	Exterior 1 Story
	Exterior 2 Story
	Prefab 1 Story
	Prefab 2 Story
	Heat Circulator
	Raised Hearth
	Wood Stove
	Direct-Vented Ga

Class: CD
Effec. Age: 40
Floor Area: 1540
Total Base Cost: 97,930
Total Cost New : 119,475
Total Depr Cost: 71,685
Estimated T.C.V: 68,818

CntyMult
X 1.220
E.C.F.
X 0.960

(16) Porches/Decks

Area	Type
224	WCP (1 Story)
96	CGEP (1 Story)

(17) Garage

Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
1.25 Story	Siding	Basement	64.98	0.00	0.00	672	43,667
1 Story	Siding	Basement	56.03	0.00	0.00	448	25,101
1 Story	Siding	Crawl Space	56.03	-8.06	0.00	252	12,088

Other Additions/Adjustments	Rate	Size	Cost
Walk out Basement Door(s)	700.00	1	700
(14) Water/Sewer			
Well, 150 Feet	3775.00	1	3,775
1000 Gal Septic	2895.00	1	2,895
(15) Built-Ins & Fireplaces			
Vented Hood	285.00	1	285
Standard Range	690.00	1	690
(16) Porches			
WCP (1 Story), Standard	20.00	224	4,480
CGEP (1 Story), Standard	44.26	96	4,249

Phy/Ab.Phy/Func/Econ/Comb.%Good= 60/100/100/100/60.0, Depr.Cost = 71,685
ECF (NORVELL ECF) 0.960 =: TCV of Bldg: 1 = 68,818

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-12-101-001-00

Printed on 11/03/2009

Building Type	Toolshed	Barn, General Purpose	Barn, General Purpose	Barn, General Purpose	
Year Built					
Class/Construction	D, Frame	D, Frame	D, Frame	D, Frame	
Quality/Exterior	Low Cost	Low Cost	Average	Low Cost	
Base Rate/SF	5.55	12.20	16.80	12.20	
# of Walls, Perimeter	4 Wall , 8	4 Wall , 218	4 Wall , 140	4 Wall , 220	
Perimeter Mult.	X 0.875 = 4.86	X 0.998 = 12.18	X 1.237 = 20.78	X 0.970 = 11.83	
Height	60	20	18	12	
Story Height Mult.	X 1.500 = 7.28	X 1.192 = 14.51	X 1.154 = 23.98	X 1.038 = 12.28	
Heating System	No Heating/Cooling	No Heating/Cooling	No Heating/Cooling	No Heating/Cooling	
Heat Adj./SF					
Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.24 = 9.03	X 1.24 = 18.00	X 1.24 = 29.74	X 1.24 = 15.23	
Final Rate/SF	$9.03	$18.00	$29.74	$15.23	
Length/Width/Area	12 x 18 = 216	74 x 35 = 2590	40 x 20 = 800	60 x 50 = 3000	
Cost New	$ 1,951	$ 46,611	$ 23,790	$ 45,695	
Phy./Func./Econ. %Good	30/100/100 30.0	30/100/100 30.0	30/100/100 30.0	30/100/100 30.0	
Depreciated Cost	$ 585	$ 13,983	$ 7,137	$ 13,709	
+ Unit-In-Place Items	$ 64	$	$	$	
Description, Size X Rate X %Good = Cost Itemized ->>> Unit-In-Place ->>> Items ->>>	PIERS-PRICED PER D, 12 X 9.55 X 45 = 64				
E.C.F.	X 0.96	X 0.96	X 0.96	X 0.96	
Est. True Cash Value	$ 623	$ 13,424	$ 6,852	$ 13,160	
Comments:		GAMBREL ROOF	GAMBREL ROOF	GAMBREL ROOF	

Total Estimated True Cash Value of Agricultural Improvements / This Card: 34059 / All Cards: 34059

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-12-101-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 05/14/2008

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
AUSTIN RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD
JACKSON MI 49202

Legal Description
NW 1/4 OF NW 1/4. SEC 12 T4S R2E #

Comments/Influences

Class: Agricultural | Zoning: RES
School: District 38040
P.R.E. 100% / /
Map #:
2008 Est TCV 257,098 TCV/TFA: 136.03

Building Permit(s)	Date	Number	Status

X Improved | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who When What

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		40.00 Total Acres			Total Est. Land Value =			164,000

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2008	82,000	46,550	128,550			51,532C
2007	103,750	46,549	150,299			50,374C
2006	87,000	50,401	137,401			48,577C
2005		132,129	132,129			47,026C

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Information herein deemed reliable but not guaranteed

Building Type
X Single Family
Mobile Home
Town Home
Duplex
A-Frame

X Wood Frame

Building Style:
1 1/2 STORY

YearBuilt 0 | Remodeled

Condition for Age:
Good

Room List
Basement
1st Floor
2nd Floor
Bedrooms

(1) Exterior
X Wood/Shingle
Aluminum/Vinyl
Brick

Insulation

(2) Windows
X Many Ave. Few | X | Large Ave. Small

Wood Sash
Metal Sash
Vinyl Sash
Double Hung
Horiz. Slide
Casement
Double Glass
Patio Doors
Storms&Screens

(3) Roof
X Gable Hip Flat | Gambrel Mansard Shed

X Asphalt Shingle

Chimney: Brick

(3) Roof (cont.)
Eavestrough
Insulation
0 Front Overhang
0 Other Overhang

(4) Interior
Drywall
Paneled
Plaster
Wood T&G

Trim & Decoration
Ex | X Ord | Min

Size of Closets
Lg | X Ord | Small

Doors | Solid | X H.C.

(5) Floors
Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation
Basement: 1092 S.F.
Crawl: 252 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement
Conc. Block
Poured Conc.
Stone
Treated Wood
Concrete Floor

(9) Basement Finish
Recreation SF
Living SF
Walkout Doors
No Floor SF

(10) Floor Support
Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling
X Gas | Oil | Elec.
Wood | Coal | Steam

Forced Air w/o Ducts
X Forced Air w/ Ducts
Forced Hot Water
Electric Baseboard
Elec. Ceil. Radient
Radiant (in-floor)
Electric Wall Heat
Space Heater
Wall/Floor Furnace
Forced Heat & Cool
Heat Pump
No Heating/Cooling

Central Air
Wood Furnace

(12) Electric
Amps Service

No./Qual. of Fixtures
Ex. | X Ord. | Min

No. of Elec. Outlets
Many | X Ave. | Few

(13) Plumbing
1 Average Fixture(s)
3 Fixture Bath
2 Fixture Bath
Softener, Auto
Softener, Manual
Solar Water Heat
No Plumbing
Extra Toilet
Extra Sink
Separate Shower
Ceramic Tile Floor
Ceramic Tile Wains
Ceramic Tub Alcove
Vent Fan

(14) Water/Sewer
1 Public Water
1 Public Sewer
Water Well
1000 Gal Septic
2000 Gal Septic

Lump Sum Items:

(15) Built-ins
Appliance Allow.
Cook Top
Dishwasher
Garbage Disposal
Bath Heater
Vent Fan
Hot Tub
Unvented Hood
Vented Hood
Intercom
Jacuzzi Tub
Jacuzzi repl.Tub
Oven
Microwave
Standard Range
Self Clean Range
Sauna
Trash Compactor
Central Vacuum
Security System

(15) Fireplaces
Interior 1 Story
Interior 2 Story
2nd/Same Stack
Two Sided
Exterior 1 Story
Exterior 2 Story
Prefab 1 Story
Prefab 2 Story
Heat Circulator
Raised Hearth
Wood Stove
Direct-Vented Ga

Class: CD
Effec. Age: 41
Floor Area: 1890
Total Base Cost: 82,344 CntyMult X 1.210
Total Cost New : 99,636 E.C.F.
Total Depr Cost: 58,785 X 1.440
Estimated T.C.V: 84,651

(16) Porches/Decks

Area	Type
130	WGEP (1 Story)
252	WCP (1 Story)
44	CPP

(17) Garage
Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
1.5	Story Siding	Mich Bsmnt.	60.55	-3.43	0.00	1092	62,375
1	Story Siding	Crawl Space	47.60	-6.86	0.00	252	10,266

Other Additions/Adjustments	Rate	Size	Cost
(14) Water/Sewer			
Public Water	912.00	1	912
Public Sewer	913.00	1	913
(16) Porches			
WGEP (1 Story), Standard	31.33	130	4,073
WCP (1 Story), Shallow	13.33	252	3,359
CPP , Shallow	10.12	44	445

Phy/Ab.Phy/Func/Econ/Comb.%Good= 59/100/100/100/59.0, Depr.Cost = 58,785
ECF (50 AGRICULTURAL) 1.440 => TCV of Bldg: 1 = 84,651

Information herein deemed reliable but not guaranteed

Building Type	Barn, General Purpose				
Year Built					
Class/Construction	D,Frame				
Quality/Exterior	Average				
Base Rate/SF	13.57				
# of Walls, Perimeter	4 Wall , 0				
Perimeter Mult.	X 1.000 = 13.57				
Height					
Story Height Mult.	X 0.946 = 12.84				
Heating System	No Heating/Cooling				
Heat Adj./SF					
Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.20 = 15.40				
Final Rate/SF	$15.40				
Length/Width/Area	0 x 0 = 0				
Cost New	$				
Phy./Func./Econ. %Good	94/100/100 94.0				
Depreciated Cost	$				
+ Unit-In-Place Items	$				
Description, Size X Rate X %Good = Cost Itemized ->\ Unit-In-Place ->\ Items ->					
E.C.F.	X 1.12				
Est. True Cash Value	$ 8,447				
Comments:					

Total Estimated True Cash Value of Agricultural Improvements / This Card: 8447 / All Cards: 8447

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-12-101-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 05/21/2007

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
AUSTIN RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD
JACKSON MI 49202

Legal Description
NW 1/4 OF NW 1/4. SEC 12 T4S R2E #

Comments/Influences

Class: Agricultural | Zoning: RES

School: District 38040

P.R.E. 100% / /

Map #:

2007 Est TCV 300,598 TCV/TFA: 159.05

Building Permit(s)	Date	Number	Amount

X Improved | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who When What

Land Value Estimates for Land Table 00050.SO AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Acreage Table 'A'		40.000 Acres			4150	125		207,500
		40.00 Total Acres					Total Est. Land Value =	207,500

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2007	103,750	46,549	150,299			50,374C
2006	87,000	50,401	137,401			48,577C
2005		132,129	132,129			47,026C
2004		127,203	127,203			45,969C

The Equalizer. Copyright (c) 1999 - 2000.
Licensed to Norvell Township, Jackson County

Information herein deemed reliable but not guaranteed

Building Type

X	Single Family
	Mobile Home
	Town Home
	Duplex
	A-Frame

X	Wood Frame

Building Style: 1 1/2 STORY

YearBuilt	Remodeled
0	

Condition for Age: Good

Room List

	Basement
	1st Floor
	2nd Floor
	Bedrooms

(1) Exterior

X	Wood/Shingle
	Aluminum/Vinyl
	Brick
	Insulation

(2) Windows

X	Many Ave. Few	X	Large Ave. Small

	Wood Sash
	Metal Sash
	Vinyl Sash
	Double Hung
	Horiz. Slide
	Casement
	Double Glass
	Patio Doors
	Storms&Screens

(3) Roof

X	Gable Hip Flat		Gambrel Mansard Shed

X	Asphalt Shingle

Chimney: Brick

(3) Roof (cont.)

	Eavestrough
	Insulation
0	Front Overhang
0	Other Overhang

(4) Interior

	Drywall Paneled		Plaster Wood T&G

Trim & Decoration

	Ex	X	Ord	Min

Size of Closets

	Lg	X	Ord	Small

Doors		Solid	X	H.C.

(5) Floors

Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation

Basement: 1092 S.F.
Crawl: 252 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement

	Conc. Block
	Poured Conc.
	Stone
	Treated Wood
	Concrete Floor

(9) Basement Finish

	Recreation SF
	Living SF
	Walkout Doors
	No Floor SF

(10) Floor Support

Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling

X	Gas Wood		Oil Coal		Elec. Steam

	Forced Air w/o Ducts
X	Forced Air w/ Ducts
	Forced Hot Water
	Electric Baseboard
	Elec. Ceil. Radient
	Radiant (in-floor)
	Electric Wall Heat
	Space Heater
	Wall/Floor Furnace
	Forced Heat & Cool
	Heat Pump
	No Heating/Cooling

	Central Air
	Wood Furnace

(12) Electric

Amps Service

No./Qual. of Fixtures

	Ex.	X	Ord.	Min

No. of Elec. Outlets

	Many	X	Ave.	Few

(13) Plumbing

1	Average Fixture(s)
	3 Fixture Bath
	2 Fixture Bath
	Softener, Auto
	Softener, Manual
	Solar Water Heat
	No Plumbing
	Extra Toilet
	Extra Sink
	Separate Shower
	Ceramic Tile Floor
	Ceramic Tile Wains
	Ceramic Tub Alcove
	Vent Fan

(14) Water/Sewer

1	Public Water
1	Public Sewer
	Water Well
	1000 Gal Septic
	2000 Gal Septic

Lump Sum Items:

(15) Built-ins

	Appliance Allow.
	Cook Top
	Dishwasher
	Garbage Disposal
	Bath Heater
	Vent Fan
	Hot Tub
	Unvented Hood
	Vented Hood
	Intercom
	Jacuzzi Tub
	Jacuzzi repl.Tub
	Oven
	Microwave
	Standard Range
	Self Clean Range
	Sauna
	Trash Compactor
	Central Vacuum
	Security System

(15) Fireplaces

	Interior 1 Story
	Interior 2 Story
	2nd/Same Stack
	Two Sided
	Exterior 1 Story
	Exterior 2 Story
	Prefab 1 Story
	Prefab 2 Story
	Heat Circulator
	Raised Hearth
	Wood Stove
	Direct-Vented Ga

Class: CD
Effec. Age: 41
Floor Area: 1890
Total Base Cost: 82,344
Total Cost New : 99,636
Total Depr Cost: 58,785
Estimated T.C.V: 84,651

CntyMult X 1.210
E.C.F. X 1.440

(16) Porches/Decks

Area	Type
130	WGEP (1 Story)
252	WCP (1 Story)
44	CPP

(17) Garage

Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
1.5	Story Siding	Mich Bsmnt.	60.55	-3.43	0.00	1092	62,375
1	Story Siding	Crawl Space	47.60	-6.86	0.00	252	10,266

Other Additions/Adjustments	Rate	Size	Cost
(14) Water/Sewer			
Public Water	912.00	1	912
Public Sewer	913.00	1	913
(16) Porches			
WGEP (1 Story), Standard	31.33	130	4,073
WCP (1 Story), Shallow	13.33	252	3,359
CPP , Shallow	10.12	44	445

Phy/Ab.Phy/Func/Econ/Comb.%Good= 59/100/100/100/59.0, Depr.Cost = 58,785
ECF (50 AGRICULTURAL) 1.440 => TCV of Bldg: 1 = 84,651

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Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.20 = 15.40				
Final Rate/SF	$15.40				
Length/Width/Area	0 x 0 = 0				
Cost New	$				
Phy./Func./Econ. %Good	94/100/100 94.0				
Depreciated Cost	$				
+ Unit-In-Place Items	$				
Description, Size X Rate X %Good = Cost Itemized ->\ Unit-In-Place ->\ Items ->					
E.C.F.	X 1.12				
Est. True Cash Value	$ 8,447				
Comments:					
Total Estimated True Cash Value of Agricultural Improvements / This Card: 8447 / All Cards: 8447					

Information herein deemed reliable but not guaranteed

Michigan Department of Treasury
T-1063 (5/94)

Issued under P.A. 331 of 1993, or P.A. 312 of 1993.
Filing is required if you wish to receive an exemption.

CLAIM FOR FARMLAND EXEMPTION FROM SOME SCHOOL OPERATING TAXES

Do you need to file this claim?

If you answer "YES" to either of these questions, you do NOT need to file this form.

➔ Is the property vacant and classified agricultural?

(Note: Vacant property classified as agricultural is automatically exempt from some school taxes and the changes will be made on your next tax bill.)

➔ Have you already filed the *Homestead Exemption Affidavit* for this property?

If you answered "NO" to both of these questions and the property is used primarily for agricultural purposes but is not classified as agricultural, complete this form and file it with your local unit by **June 1, 1994.**

If your property has a residence or other buildings on it, your assessor may ask you to complete this form.

Section 1. File a separate claim for each qualified parcel.

1. Name of Owner (first, middle, last)
GLYNN TROLZ & ASSOCIATES, INC.

Name of Co-Owner (first, middle, last)

Street Address of Property Claimed
3460 Ann Arbor Rd.

City and State | ZIP Code
Jackson, MI | 49202

Name of Township/City Where Property is Located | County of Property
Norvell | Jackson

Check one: ☑ Township ☐ City

2. Enter below the property tax identification number of the qualified property you are claiming. This number is on your tax bill or your assessment notice. Start at the left and leave any extra spaces blank. Use a full space for any hyphens (-) in the number.

0 0 - 2 0 - 1 2 - 1 0 1 - 0 0 1 - 0 0

Section 2: Farmland.

a. If this property is not classified as agricultural, is more than 50% of the acreage devoted to an agricultural use? (Skip this question if your property is classified agricultural.) Yes ☐ No ☐

b. Does this property include any residences occupied by a person who is not involved in the agricultural operation? Yes ☐ No ☐

c. If the property includes a residence, has the occupant filed a *Homestead Exemption Affidavit* for a different residence? Yes ☐ No ☐

d. Does this property include any buildings not involved in the agricultural operation? Yes ☐ No ☐

If you answered 'yes' to items 2b, 2c or 2d, part of your property does not qualify. You must enter a percentage in Section 3.

Section 3: Multi-Purpose Property. *If you answered 'yes' to item 2b, 2c or 2d, give the percentage of the property value that is devoted to agricultural use. Exclude from this percentage the value of any property that does not qualify (see instructions on back). This information is necessary for your township or city to adjust your property taxes properly. (See back for computation.)* ☐

Certification: *This affidavit is invalid unless it is signed.*

I certify, under penalty of perjury, that I own (or co-own) the property claimed on this affidavit, that it is qualified agricultural property, and that all information is true to the best of my knowledge.

Owner's signature	Date	Co-owner's signature	Date
[signature]	5-26-94		

COUNTY [illegible]

TOWNSHIP [illegible]

OWNER [illegible] TOLZ + ASOC. INC

DESCRIPTION _____ CODE No. T12-7 + T12-6

SECTION _____ TOWN _____ RANGE _____

000-20-[illegible]-001-00 40 AC $34,000

000-20-[illegible]-001-00 100 AC 34,000

3400 [illegible] ARBOR Rd

[illegible]

PHYSICAL AND ECONOMIC FACTORS

Type of Road _____

Trading Center (name) _____ miles

Market (name) _____ miles

School (type) _____ miles

☐ Electricity ☐ Telephone ☐ Gas Line

PART of LARGER

Type	Acres or No.	Age	Rate	Total
	143		$	$
HIGH	85.2		950	80,940
P/PASTURE	3.4		238	809
W/W/MARSH	50		143	7,150
R/W	1.4			
Total Fruit				$ 88,899

LAND VALUE

Area No.	No. Acres	Value/A.	Total
		$	$
Total Land			$

W+S 1000

SUMMARY OF APPRAISAL

TOTAL LAND . . . . . $ 89,899

TOTAL FRUIT . . . . . _____

TOTAL BUILDINGS 38 083

TOTAL APPRAISED VALUE $127,982

Board of Review	1984	19	19	19
LAND				
BUILDINGS				
Total	68,000			53.13
State Tax Commission				
LAND				
BUILDINGS				
Total				

1. Type
- ✓ Single Family

2. Frame
- ✓ Wood

3. Exterior
- ✓ Wood
- Aluminum
- Brick
- Block

4. Roof
- Hip
- ✓ Gable
- ✓ Front Overhang
- ✓ Other Overhang
- Eavestrough
- Chimney Type:
- ✓ Brick / Block
- Stone / Metal
- ✓ Asphalt Shingles

5. Windows
- Many / Few
- Large / Small
- ✓ Wood Sash
- Metal Sash
- ✓ Double Hung
- Hor. Sliding
- Double Glass
- Complete Trim
- No Inside Trim
- Storms & Scr.

6. Year Built:

7. Year Remod.

8. Number Rooms
- Basement
- 1st Floor
- 2nd Floor
- Baths

9. Insulation
- Ceiling
- Entire
- None

10. Floor Support
- Joists " x " " o.c.
- Unsupported Length ft.
- Sill Plate: ☐ Yes ☐ No
- Diag. Sub-Floor " x "
- Ply. Sub-Floor " x "
- Center Support

11. Basement & Foundation
- Crawl Space s.f.
- Slab House s.f.
- Basement s.f.
- Height to Joists ft.
- Concrete Block "
- Concrete Walls "
- Concrete Floor
- Asphalt Tile s.f.
- Recreation Room s.f.

WOOD BURNER

12. Heating & Air Conditioning
- Gas - Forced Warm Air
- ✓ Oil - Forced Warm Air
- Gas / Oil / Coal
- Wall Fur. / Floor Fur.
- Stove or Space Heat
- Steam Radiators
- Forced Warm Water
- AIR CONDITIONER tons
- FIREPLACE ft.

13. Interior
- Trim & Decorations: Elab. / Ord. / Min.
- Size of Closets: Large / Ord. / Small
- Number of Closets: Many / Ord. / Few
- No. & Qual. Electric Fixtures: Ex. / Ord. / Min.
- No. Electric Outlets: Many / Ord. / Few
- Foyer
- Kit. Fl.
- Other Fl.
- Drywall
- Plaster
- Caved Ceilings
- Paneled Walnut
- Hardware Qual.

14. Plumbing
- No. of Baths
- Cer. Tile Walls
- Cer. Tile Floor
- Plastic Tile Walls
- Extra Stool
- Extra Wash Bowl
- Water Heater: Gals. / Gas / Elec.

15. Built-in Items
- Oven Range
- Disposal
- Hood & Fan
- Dishwasher
- Refrigerator
- Incinerator
- Vanities
- Cupboard Length
- Cupboard Quality

16. Garage
- Year Built
- Attached / Separate
- Cars / Condition
- Wide / Deep
- Walls
- Floor
- Doors
- Common Wall
- Other Walls
- Ceiling

17. Porches

Wide	Deep	Type

Priced by
Date
Checked By
Date

CLASS C-5 Size for Rates 1350

Typical Classes of Other Houses in this Neighborhood

Neighborhood is ☐ Improving ☐ Stable ☐ Declining

Condition for Age

Effective Age

OLD BARN 74X35X400X.40X.60 — 2486

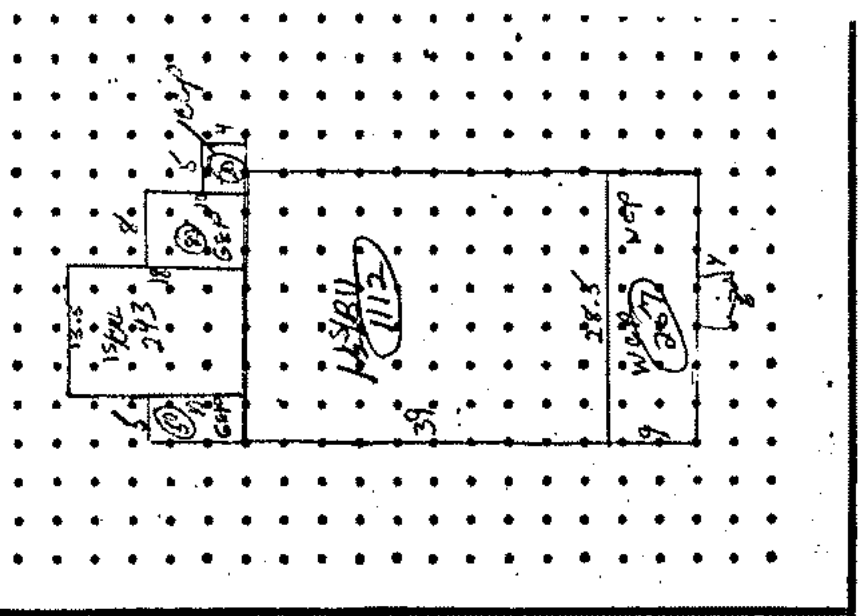
BARN 19X40X400X40X60 — 730

BARN 42X77X400X.40X60 — 3,105

GRAINERY 18X12X3.50X40X.50 — 151

CORN CRIB + SHED 30X60X3.50X40X.50 — 1260

4,627



ITEM OR NO. STORIES	SQUARE FEET	UNIT COST	BASE VALUE	DEPR. & DESCL. % GOOD	DEPR. VALUE
1½S/BU	1112	$ 18.15	$ 20,183		$
1S/CRL	243	11.88	2,887		
GEP	130	11.82	1,537		
WCP	257	5.69	1,462		
LCP	20	5.50	110		
			26,179	.60	15,707

19.10 × .95 = 18.15

13.96 − 1.46 = 12.50 × .95 = 11.88

Total Depr. Value $

Reno. Cond. Factor 2.13 %

4627

True Cash Value $ 33456

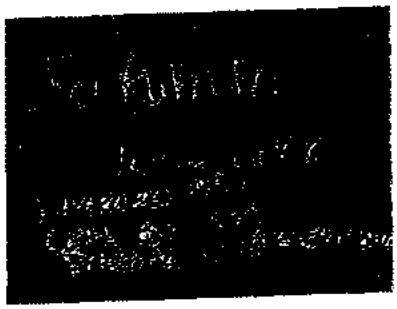
28083

RECEIVED
9/8/2014

LOOMIS

LOOMIS, EWERT, PARSLEY, DAVIS & GOTTING P.C.

ATTORNEYS AT LAW



JACK C. DAVIS PC
KARL L. GOTTING PLLC
JAMES R. NEAL
KENNETH W. BEALL PLLC
MICHAEL G. OLIVA
CATHERINE A. JACOBS
MICHAEL H. RHODES [1,2]
JEFFREY L. GREEN
JEFFREY S. THEUER[3]
KEVIN J. RORAGEN
RICHARD W. PENNINGS

TED S. ROZEBOOM
MICHAEL F. MATHESON[4]
SARA L. CUNNINGHAM[4]
TRACEY L. LACKMAN
JAMES F. ANDERTON, V[5]
MICHAEL G. STEFANKO[7]
MIEKE V. WEISSERT
LEAH J. BROOKS
WARREN H. KRUEGER, III
ELIZABETH HUSA BRIGGS[6]
DOMINIC R. RIOS

OF COUNSEL:
WILLIAM D. PARSLEY
MICHAEL A. HOLMES
PAULA K. MANIS PLLC[1,4,8]
KELLY REED LUCAS[5]
COLIN W. MAGUIRE

[1] ALSO LICENSED IN OH
[2] ALSO LICENSED IN PA
[3] ALSO LICENSED IN MD
[4] ALSO LICENSED IN IL
[5] ALSO LICENSED IN FL
[6] ALSO LICENSED IN NY
[7] ALSO CPA
[8] EASTWOOD OFFICE

August 28, 2014

Ms. Ruth A. Scott, Assessor of Record
Norvell Township
PO Box 385
Norvell, Michigan 49263-0188

Re: Transfers from Estate of Glynn Trolz, Glynn Trolz and Associates to G.T. Ranch LLC

Dear Ms. Scott:

I am writing this letter to follow through on discussions regarding the tax exemptions for transfers between the above entities.

The following parcels were transferred from the Estate of Glynn A. Trolz to Glynn Trolz and Associates, Inc.:

000-20-12-251-002-00
000-20-12-276-001-00

Those properties were then transferred from Glynn Trolz and Associates to GT Ranch, LLC

In addition, the following parcels were transferred from Glyn Trolz and Associates to GT Ranch, LLC.

000-20-12-101-001-00
000-20-12-176-001-00
000-20-12-251-001-00
000-20-12-251-002-00

LANSING OFFICE:
124 W. ALLEGAN STREET, SUITE 700
LANSING, MI 48933-1784
517-482-2400

EASTWOOD OFFICE:
2400 LAKE LANSING ROAD, SUITE E
LANSING, MI 48912-3674
517-485-0400

000-20-12-376-001-00
000-20-12-376-001-00

000-20-13-151-001-00
000-20-13-151-003-00
000-20-13-201-001-00
000-20-13-251-001-00
000-20-13-301-001-00
000-20-13-400-001-00

000-20-14-201-001-00
000-20-14-276-001-00
000-20-14-400-001-00
000-20-24-200-001-00
000-20-24-301-001-00
000-20-24-301-002-00
000-20-24-351-001-00

000-20-25-101-001-00

In my opinion, all of these parcels would be exempt from having the real estate taxes uncapped under two theories: 1) the properties are qualified agricultural property MCL 211.7dd; and 2) commonly controlled entities, MCL 211.27a(7)(1). The agricultural property exemption is clear. However, I want to give you the history of the corporations and individuals and the exemption under the commonly controlled entities theory.

The beneficiaries of the Estate of Glynn A. Trolz at the time of the transfers were Gary Trolz, Glynn Trolz, II, James Trolz and Lisa Hunt. Glynn Trolz and Associates had only one stockholder, Glynn A. Trolz, and therefore, when he died, the sole shareholder was the Estate of Glynn A. Trolz. Therefore, when the transfers occurred from the Estate of Glynn A. Trolz to Glynn Trolz and Associates, the control was the same individuals, the ultimate beneficiaries of the estate, Gary Trolz, Glynn Trolz II, James Trolz and Lisa Hunt. Glynn Trolz and Associates, Inc. then established GT Ranch, LLC and was the sole member of GT Ranch, LLC. Because the beneficiaries, Gary Trolz, Glynn Trolz, II, James Trolz and Lisa Hunt were vested owners of Glynn Trolz and Associates, Inc., they were the only vested owners of GT Ranch, LLC at the time the transfers occurred.

The State Tax Commission has directed that the Michigan Revenue Administrative Bulletin 1989-48 is to be used in determining whether entities are commonly controlled. The Michigan Revenue Administrative Bulletin 1989-48 and case law determining common control look to the owners of an entity to see if they are common and to the beneficiaries of trusts and estates, such as you have in this instance. Who is the trustee of a trust or personal representative of an estate is not the issue. The issue is who are the beneficiaries of these entities. In *Sebastian J. Mancuso Family Trust v City of Charlevoix COA, unpublished February 5, 2013,* the court

held that beneficiaries have an ownership interest in the property. Therefore, two entities with the same beneficiaries may constitute "commonly controlled" entities. This finding was based on the fact that although the trustee, or personal representative, has extensive control over the trust, or the estate, he or she is ultimately liable to the beneficiaries. The Michigan Tax Tribunal applied the *Mancuso Family Trust* decision and found that a trust (estate) and a partnership were legal entities which were commonly controlled by looking through to the beneficiaries of the trust (estate). The beneficiaries have the control of the trust and the trust was the sole owner of the partnership. In the case of the Trolz family, the beneficiaries of the Estate of Glynn A. Trolz were the ultimate owners of Glynn Trolz and Associates, Inc. and the ultimate owners of GT Ranch, LLC, which was solely owned by Glynn Trolz and Associates, Inc.

In my opinion, the transfers addressed in this letter are exempt under MCL 211.7dd and MCL 211.27a(7)(1). I do not recall if the proper documentation had been given to you at the time of recording. If the proper documents were not presented to you at the time of recording, please let me know and I will have them completed.

Very truly yours,

LOOMIS, EWERT, PARSLEY,
DAVIS & GOTTING, P.C.

Catherine A. Jacobs

Catherine A. Jacobs

cc: Gary Trolz

000-20-12-176-001-00
GLYNN TROLZ & ASSOC INC
3460 ANN ARBOR RD
JACKSON MI 49202

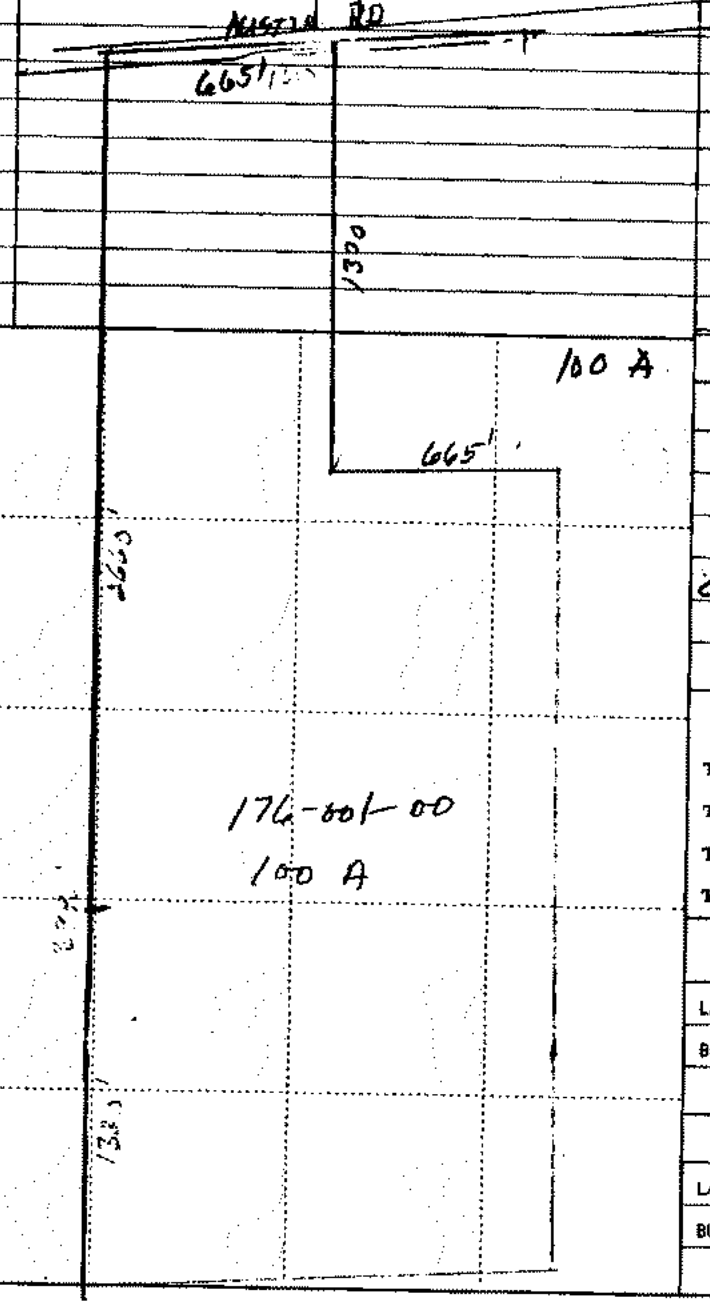
PHYSICAL AND ECONOMIC FACTORS

Road BLACKTOP
Center (name) ____ miles
(name) ____ miles
(type) ____ miles

☑ Electricity ☐ Telephone ☐ Gas Line

Inc 4/1/11 Jane

Sold 11-10-77 on W.D. to Trolz for 60,000



Type	Class	Acres
Cropland and untillable pasture	1	
	2	
	3	
	4	

FRUIT

Type	Acres or No.	Age	Rate	Total
			$	$

Total Fruit $

LAND VALUE

Area No.	No. Acres	Value/A.	Total
	100	$	$
RIJ	[illegible] 50A		[illegible]
Conservation	99.50	600	59,700

Total Land $

SUMMARY OF APPRAISAL

TOTAL LAND . . . . . $
TOTAL FRUIT . . . . . .
TOTAL BUILDINGS. BKRN 2100
TOTAL APPRAISED VALUE . . . . . $ 61,700

Board of Review	1977	1978	1979	1980
LAND	20400	30000	31,200	33700
BUILDINGS				
Total	84	86	87	89
State Tax Commission	34,000	32000	31000	35,000
LAND				
BUILDINGS	90	91	92	
Total	30,000	✓		

91

1. Type
- Single Family

2. Frame
- Wood

3. Exterior
- Wood
- Aluminum
- Brick
- Block

4. Roof
- Hip
- Gable
- Front Overhang
- Other Overhang
- Eavestrough
- Chimney Type:
  - Brick | Block
  - Stone | Metal
- Asphalt Shingles

5. Windows
- Many | Few
- Large | Small
- Wood Sash
- Metal Sash
- Double Hung
- Hor. Sliding
- Double Glass
- Complete Trim
- No Inside Trim
- Storms & Scr.

6. Year Built:

7. Year Remod.

8. Number Rooms
- Basement
- 1st Floor
- 2nd Floor
- Baths

9. Insulation
- Ceiling
- Entire
- None

10. Floor Support
- Joists " x ", " o.c.
- Unsupported Length ft.
- Sill Plate: ☐ Yes ☐ No
- Diag. Sub-Floor " x "
- Ply. Sub-Floor " x "
- Center Support

11. Basement & Foundation
- Crawl Space s.f.
- Slab House s.f.
- Basement s.f.
- Height to Joists ft.
- Concrete Block "
- Concrete Walls "
- Concrete Floor
- Asphalt Tile s.f.
- Recreation Room s.f.

12. Heating & Air Conditioning
- Gas - Forced Warm Air
- Oil - Forced Warm Air
- Gas | Oil | Coal
- Wall Fur. | Floor Fur.
- Stove or Space Heat
- Steam Radiators
- Forced Warm Water
- AIR CONDITIONER tons
- FIREPLACE ft.

13. Interior
- Trim & Decoration: Elab. | Ord. | Min.
- Size of Closets: Large | Ord. | Small
- Number of Closets: Many | Ord. | Few
- No. & Qual. Electric Fixtures: Ex. | Ord. | Min.
- No. Electric Outlets: Many | Ord. | Few
- Foyer
- Kit. Fl.
- Other Fl.
- Drywall
- Plaster
- Coved Ceilings
- Paneled Wainscot
- Hardware Qual.

14. Plumbing
- No. of Baths $
- Cer. Tile Walls
- Cer. Tile Floor
- Plastic Tile Walls
- Extra Stool
- Extra Wash Bowl

Water Heater:
- Gals. | Gas | Elec.

15. Built-In Items
- Oven Range $
- Disposal
- Hood & Fan
- Dishwasher
- Refrigerator
- Incinerator
- Vanities
- Cupboard Length
- Cupboard Quality

16. Garage
- Year Built
- Attached | Separate
- Cars | Condition
- Wide | Deep
- Walls
- Floor
- Doors
- Common Wall
- Other Walls
- Ceiling

17. Porches

Wide	Deep	Type

Priced by
Date
Checked By
Date

CLASS Size for Rates
Typical Classes of Other Houses in this Neighborhood
Neighborhood is ☐ Improving ☐ Stable ☐ Declining
Condition for Age
Effective Age

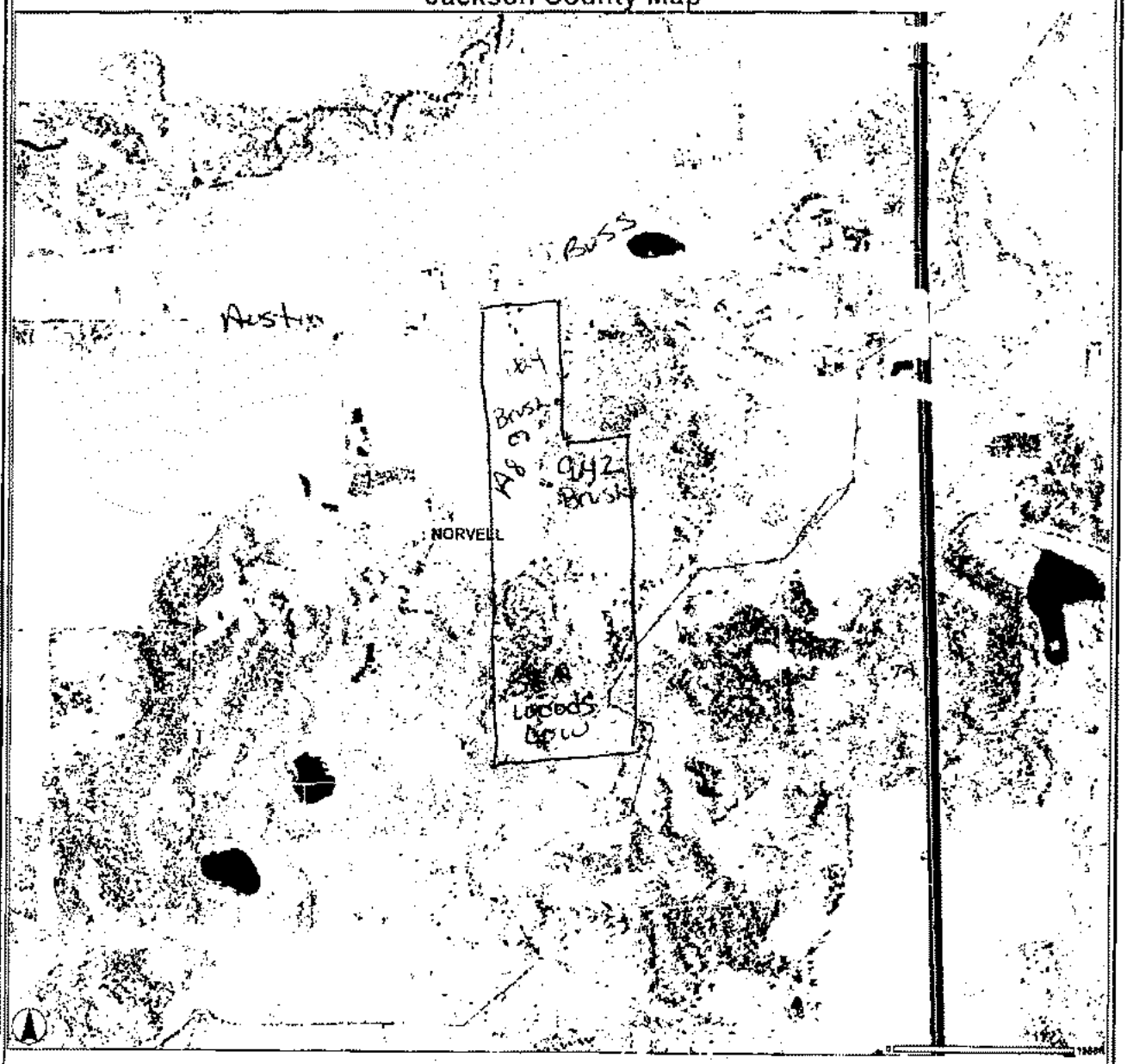
ITEM OR NO. STORIES	SQUARE FEET	UNIT COST	BASE VALUE	DEPR. & OBSOL. % GOOD	DEPR. VALUE
		$	$		$

Total Depr. Value $
Econ. Cond. Factor x %
True Cash Value $

4000-20-12-176-001-00

Jackson County GIS - Interactive Mapping Application

Jackson County Map



Legend

NEXT TO 14341 AUSTIN RD See PG 3
BEFORE BUSS ON RIGHT

#080-10-12-176-001-00

Jackson County GIS - Interactive Mapping Application

Jackson County Map

Legend

Parcel Number: 000-20-12-176-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 04/27/2012

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
AUSTIN RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD
JACKSON MI 49202

Description
THE W 1/2 OF NE 1/4 OF NW 1/4 AND SE 1/4 OF NW 1/4 AND NE 1/4 OF SW 1/4. SEC 12 T4S R2E

Comments/Influences

The Equalizer. Copyright (c) 1999 - 2009. Licensed to: Norvell Township, Jackson County

Class: Agricultural Vaca | Zoning: RES

School: District 81080

P.R.E. 100% / /

Map #:

2012 Est TCV 296,399

Building Permit(s)	Date	Number	Status

X Improved | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who	When	What
JG	04/02/2011	Data Ent
JG	04/01/2011	Inspecte

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Rate Table SW/WW - 10-40A	38.00 Acres		950	100				36,100
Rate Table CONSERVATION	9.42 Acres		3250	100				30,615
Rate Table +20 - 40 ACRES	52.58 Acres		4250	100				223,465
	100.00 Total Acres						Total Est. Land Value =	290,180

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2012	145,090	3,110	148,200			44,137C
2011	126,090		126,090			42,977C
2010	157,500	1,380	156,880			42,259C
2009	157,500	1,380	158,880			42,387C

Information herein deemed reliable but not guaranteed

Agricultural Improvement Card 1 of 1 Parcel Number: 000-20-12-176-001-00 Printed on 04/27/2012

Building Type	Barn, General Purpose				
Year Built					
Class/Construction	D,Frame				
Quality/Exterior	Low Cost				
Base Rate/SF	12.20				
# of Walls, Perimeter	4 Wall , 188				
Perimeter Mult.	X 1.019 = 12.43				
Height	12				
Story Height Mult.	X 1.038 = 12.90				
Heating System	No Heating/Cooling				
Heat Adj./SF					
Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.25 = 16.13				
Final Rate/SF	$16.13				
Length/Width/Area	34 x 60 = 2040				
Cost New	$ 32,906				
Phy./Func./Econ. %Good	21/100/100 21.0				
Depreciated Cost	$ 6,910				
+ Unit-In-Place Items	$				
Description, Size X Rate X %Good = Cost Itemized ->\ Unit-In-Place ->\ Items ->					
E.C.F.	X 0.90				
Est. True Cash Value	$ 6,219				
Comments:					
Total Estimated True Cash Value of Agricultural Improvements / This Card: 6219 / All Cards: 6219					

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-12-176-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 03/29/2010

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
AUSTIN RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD
JACKSON MI 49202

Description
THE W 1/2 OF NE 1/4 OF NW 1/4 AND SE 1/4 OF NW 1/4 AND NE 1/4 OF SW 1/4. SEC 12 T4S R2E

Comments/Influences

Class: Agricultural Vaca Zoning: RES
School: District 81080
P.R.E. 100% / /
Map #:
2010 Est TCV 317,760

Building Permit(s)	Date	Number	Status

X Improved | | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who When What

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Acreage Table 'A'			100.000 Acres		1750	180	DEVELOPMENT	315,000
			100.00 Total Acres		Total Est. Land Value =			315,000

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2010	157,500	1,380	158,880			42,259C
2009	157,500	1,380	158,880			42,387C
2008	157,500	1,290	158,790			40,601C
2007	157,500	1,288	158,788			39,689C

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Licensed to: Norvell Township, Jackson County

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-12-176-001-00

Printed on 03/29/2010

Building Type	Barn, General Purpose				
Year Built					
Class/Construction	D,Frame				
Quality/Exterior	Average				
Base Rate/SF	13.57				
# of Walls, Perimeter	4 Wall , 0				
Perimeter Mult.	X 1.000 = 13.57				
Height					
Story Height Mult.	X 0.946 = 12.84				
Heating System	No Heating/Cooling				
Heat Adj./SF					
Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.20 = 15.40				
Final Rate/SF	$15.40				
Length/Width/Area	0 x 0 = 0				
Cost New	$				
Phy./Func./Econ. %Good	94/100/100 94.0				
Depreciated Cost	$				
+ Unit-In-Place Items	$				
Description, Size X Rate X %Good = Cost Itemized ->\ Unit-In-Place ->\ Items ->					
E.C.F.	X 1.20				
Est. True Cash Value	$ 2,760				
Comments:					

Total Estimated True Cash Value of Agricultural Improvements / This Card: 2760 / All Cards: 2760

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-12-176-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 03/10/2009

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
AUSTIN RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD
JACKSON MI 49202

Legal Description
THE W 1/2 OF NE 1/4 OF NW 1/4 AND SE 1/4 OF NW 1/4 AND NE 1/4 OF SW 1/4. SEC 12 T4S R2E

Comments/Influences

Class: Agricultural Vaca Zoning: RES
School: District 81080
P.R.E. 100% / /
Map #:
2009 Est TCV 317,760

Building Permit(s)	Date	Number	Status

X Improved | | Vacant

Public Improvements

- [ ] Dirt Road
- [ ] Gravel Road
- [ ] Paved Road
- [ ] Storm Sewer
- [ ] Sidewalk
- [ ] Water
- [ ] Sewer
- [ ] Electric
- [ ] Gas
- [ ] Curb
- [ ] Street Lights
- [ ] Standard Utilities
- [ ] Underground Utils.

Topography of Site

- [ ] Level
- [ ] Rolling
- [ ] Low
- [ ] High
- [ ] Landscaped
- [ ] Swamp
- [ ] Wooded
- [ ] Pond
- [ ] Waterfront
- [ ] Ravine
- [ ] Wetland
- [ ] Flood Plain

Who When What

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Acreage Table 'A'			100.000 Acres		1750	180	DEVELOPMENT	315,000
			100.00 Total Acres		Total Est. Land Value =			315,000

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2009	157,500	1,380	158,880			42,387C
2008	157,500	1,290	158,790			40,601C
2007	157,500	1,288	158,788			39,689C
2006	125,000	16,385	141,385			38,273C

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Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-12-176-001-00

Printed on 03/10/2009

Building Type	Barn, General Purpose				
Year Built					
Class/Construction	D, Frame				
Quality/Exterior	Average				
Base Rate/SF	13.57				
# of Walls, Perimeter	4 Wall , 0				
Perimeter Mult.	X 1.000 = 13.57				
Height					
Story Height Mult.	X 0.946 = 12.84				
Heating System	No Heating/Cooling				
Heat Adj./SF					
Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.20 = 15.40				
Final Rate/SF	$15.40				
Length/Width/Area	0 x 0 = 0				
Cost New	$				
Phy./Func./Econ. %Good	94/100/100 94.0				
Depreciated Cost	$				
+ Unit-In-Place Items	$				
Description, Size X Rate X %Good = Cost Itemized ->\ Unit-In-Place ->\ Items ->					
E.C.F.	X 1.20				
Est. True Cash Value	$ 2,760				
Comments:					

Total Estimated True Cash Value of Agricultural Improvements / This Card: 2760 / All Cards: 2760

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-12-176-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 05/14/2008

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
AUSTIN RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD
JACKSON MI 49202

Legal Description
THE W 1/2 OF NE 1/4 OF NW 1/4 AND SE 1/4 OF NW 1/4 AND NE 1/4 OF SW 1/4. SEC 12 T4S R2E

Comments/Influences

Class: Agricultural Vaca Zoning: RES
School: District 81080
P.R.E. 100% / /
Map #:
2008 Est TCV 317,576

Building Permit(s)	Date	Number	Status

X Improved | | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who When What

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Acreage Table 'A'	100.000 Acres		1750	180				315,000
	100.00 Total Acres				Total Est. Land Value =			315,000

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2008	157,500	1,290	158,790			40,601C
2007	157,500	1,288	158,788			39,689C
2006	125,000	16,385	141,385			38,273C
2005		135,960	135,960			37,051C

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Information herein deemed reliable but not guaranteed

Agricultural Improvement Card 1 of 1 Parcel Number: 000-20-12-176-001-00 Printed on 05/14/2008

Building Type	Barn, General Purpose				
Year Built					
Class/Construction	D, Frame				
Quality/Exterior	Average				
Base Rate/SF	13.57				
# of Walls, Perimeter	4 Wall , 0				
Perimeter Mult.	X 1.000 = 13.57				
Height					
Story Height Mult.	X 0.946 = 12.84				
Heating System	No Heating/Cooling				
Heat Adj./SF					
Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.20 = 15.40				
Final Rate/SF	$15.40				
Length/Width/Area	0 x 0 = 0				
Cost New	$				
Phy./Func./Econ. %Good	94/100/100 94.0				
Depreciated Cost	$				
+ Unit-In-Place Items	$				
Description, Size X Rate X %Good = Cost Itemized ->\ Unit-In-Place ->\ Items ->					
E.C.F.	X 1.12				
Est. True Cash Value	$ 2,576				
Comments:					
Total Estimated True Cash Value of Agricultural Improvements / This Card: 2576 / All Cards: 2576					

Information herein deemed reliable but not guaranteed

Michigan Department of Treasury
T-1063 (5/94)

Issued under P.A. 331 of 1993, or P.A. 312 of 1993.
Filing is required if you wish to receive an exemption.

CLAIM FOR FARMLAND EXEMPTION FROM SOME SCHOOL OPERATING TAXES

Do you need to file this claim?

If you answer "YES" to either of these questions, you do NOT need to file this form.

➔ Is the property vacant and classified agricultural?

(Note: Vacant property classified as agricultural is automatically exempt from some school taxes and the changes will be made on your next tax bill.)

➔ Have you already filed the *Homestead Exemption Affidavit* for this property?

If you answered "NO" to both of these questions and the property is used primarily for agricultural purposes but is not classified as agricultural, complete this form and file it with your local unit by **June 1, 1994.**

If your property has a residence or other buildings on it, your assessor may ask you to complete this form.

Section 1. File a separate claim for each qualified parcel.

1. Name of Owner (first, middle, last)
GLYNN TROLZ & ASSOCIATES, INC.

Name of Co-Owner (first, middle, last)

Street Address of Property Claimed
3460 Ann Arbor Rd.

City and State | ZIP Code
Jackson, MI | 49202

Name of Township/City Where Property is Located | County of Property
Norvell | Jackson

Check one: ☒ Township ☐ City

2. Enter below the property tax identification number of the qualified property you are claiming. This number is on your tax bill or your assessment notice. Start at the left and leave any extra spaces blank. Use a full space for any hyphens (-) in the number.

0 0 0 - 2 0 - 1 2 - 1 7 6 - 0 0 1 - 0 0

Section 2: Farmland.

a. If this property is **not** classified as agricultural, is more than 50% of the acreage devoted to an agricultural use? (Skip this question if your property is classified agricultural.) ☐ Yes ☐ No

b. Does this property include any residences occupied by a person who is not involved in the agricultural operation? ☐ Yes ☐ No

c. If the property includes a residence, has the occupant filed a *Homestead Exemption Affidavit* for a different residence? ☐ Yes ☐ No

d. Does this property include any buildings not involved in the agricultural operation? ☐ Yes ☐ No

If you answered 'yes' to items 2b, 2c or 2d, part of your property does not qualify. You must enter a percentage in Section 3.

Section 3: Multi-Purpose Property. *If you answered 'yes' to item 2b, 2c or 2d, give the percentage of the property value that is devoted to agricultural use. Exclude from this percentage the value of any property that does not qualify (see instructions on back). This information is necessary for your township or city to adjust your property taxes properly. (See back for computation.)* ____

Certification: *This affidavit is invalid unless it is signed.*

I certify, under penalty of perjury, that I own (or co-own) the property claimed on this affidavit, that it is qualified agricultural property, and that all information is true to the best of my knowledge.

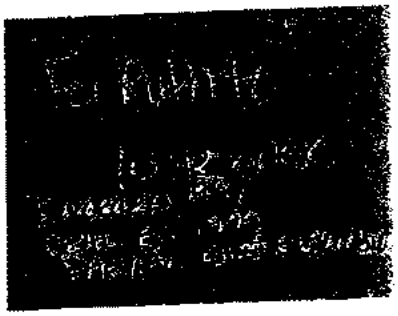
Owner's signature	Date	Co-owner's signature	Date
[signature]	5-26-94		

RECEIVED
9/8/2014

LOOMIS

LOOMIS, EWERT, PARSLEY, DAVIS & GOTTING P.C.

ATTORNEYS AT LAW



JACK C. DAVIS PC
KARL L. GOTTING PLLC
JAMES R. NEAL
KENNETH W. BEALL PLLC
MICHAEL G. OLIVA
CATHERINE A. JACOBS
MICHAEL H. RHODES [1,2]
JEFFREY L. GREEN
JEFFREY S. THEUER[3]
KEVIN J. RORAGEN
RICHARD W. PENNINGS

TED S. ROZEBOOM
MICHAEL F. MATHESON[4]
SARA L. CUNNINGHAM[1]
TRACEY L. LACKMAN
JAMES F. ANDERTON, V[5]
MICHAEL G. STEFANKO[7]
MIEKE V. WEISSERT
LEAH J. BROOKS
WARREN H. KRUEGER, III
ELIZABETH HUSA BRIGGS[6]
DOMINIC R. RIOS

OF COUNSEL:
WILLIAM D. PARSLEY
MICHAEL A. HOLMES
PAULA K. MANIS PLLC[1,4,8]
KELLY REED LUCAS[8]
COLIN W. MAGUIRE

[1] ALSO LICENSED IN OH
[2] ALSO LICENSED IN PA
[3] ALSO LICENSED IN MD
[4] ALSO LICENSED IN IL
[5] ALSO LICENSED IN FL
[6] ALSO LICENSED IN NY
[7] ALSO CPA
[8] EASTWOOD OFFICE

August 28, 2014

Ms. Ruth A. Scott, Assessor of Record
Norvell Township
PO Box 385
Norvell, Michigan 49263-0188

Re: Transfers from Estate of Glynn Trolz, Glynn Trolz and Associates to G.T. Ranch LLC

Dear Ms. Scott:

I am writing this letter to follow through on discussions regarding the tax exemptions for transfers between the above entities.

The following parcels were transferred from the Estate of Glynn A. Trolz to Glynn Trolz and Associates, Inc.:

000-20-12-251-002-00
000-20-12-276-001-00

Those properties were then transferred from Glynn Trolz and Associates to GT Ranch, LLC

In addition, the following parcels were transferred from Glyn Trolz and Associates to GT Ranch, LLC.

000-20-12-101-001-00
000-20-12-176-001-00
000-20-12-251-001-00
000-20-12-251-002-00

LANSING OFFICE:
124 W. ALLEGAN STREET, SUITE 700
LANSING, MI 48933-1784
517-482-2400

EASTWOOD OFFICE:
2400 LAKE LANSING ROAD, SUITE E
LANSING, MI 48912-3674
517-485-0400

000-20-12-376-001-00
000-20-12-376-001-00

000-20-13-151-001-00
000-20-13-151-003-00
000-20-13-201-001-00
000-20-13-251-001-00
000-20-13-301-001-00
000-20-13-400-001-00

000-20-14-201-001-00
000-20-14-276-001-00
000-20-14-400-001-00
000-20-24-200-001-00
000-20-24-301-001-00
000-20-24-301-002-00
000-20-24-351-001-00

000-20-25-101-001-00

In my opinion, all of these parcels would be exempt from having the real estate taxes uncapped under two theories: 1) the properties are qualified agricultural property MCL 211.7dd; and 2) commonly controlled entities, MCL 211.27a(7)(1). The agricultural property exemption is clear. However, I want to give you the history of the corporations and individuals and the exemption under the commonly controlled entities theory.

The beneficiaries of the Estate of Glynn A. Trolz at the time of the transfers were Gary Trolz, Glynn Trolz, II, James Trolz and Lisa Hunt. Glynn Trolz and Associates had only one stockholder, Glynn A. Trolz, and therefore, when he died, the sole shareholder was the Estate of Glynn A. Trolz. Therefore, when the transfers occurred from the Estate of Glynn A. Trolz to Glynn Trolz and Associates, the control was the same individuals, the ultimate beneficiaries of the estate, Gary Trolz, Glynn Trolz II, James Trolz and Lisa Hunt. Glynn Trolz and Associates, Inc. then established GT Ranch, LLC and was the sole member of GT Ranch, LLC. Because the beneficiaries, Gary Trolz, Glynn Trolz, II, James Trolz and Lisa Hunt were vested owners of Glynn Trolz and Associates, Inc., they were the only vested owners of GT Ranch, LLC at the time the transfers occurred.

The State Tax Commission has directed that the Michigan Revenue Administrative Bulletin 1989-48 is to be used in determining whether entities are commonly controlled. The Michigan Revenue Administrative Bulletin 1989-48 and case law determining common control look to the owners of an entity to see if they are common and to the beneficiaries of trusts and estates, such as you have in this instance. Who is the trustee of a trust or personal representative of an estate is not the issue. The issue is who are the beneficiaries of these entities. In *Sebastian J. Mancuso Family Trust v City of Charlevoix COA, unpublished February 5, 2013,* the court

held that beneficiaries have an ownership interest in the property. Therefore, two entities with the same beneficiaries may constitute "commonly controlled" entities. This finding was based on the fact that although the trustee, or personal representative, has extensive control over the trust, or the estate, he or she is ultimately liable to the beneficiaries. The Michigan Tax Tribunal applied the *Mancuso Family Trust* decision and found that a trust (estate) and a partnership were legal entities which were commonly controlled by looking through to the beneficiaries of the trust (estate). The beneficiaries have the control of the trust and the trust was the sole owner of the partnership. In the case of the Trolz family, the beneficiaries of the Estate of Glynn A. Trolz were the ultimate owners of Glynn Trolz and Associates, Inc. and the ultimate owners of GT Ranch, LLC, which was solely owned by Glynn Trolz and Associates, Inc.

In my opinion, the transfers addressed in this letter are exempt under MCL 211.7dd and MCL 211.27a(7)(1). I do not recall if the proper documentation had been given to you at the time of recording. If the proper documents were not presented to you at the time of recording, please let me know and I will have them completed.

Very truly yours,

LOOMIS, EWERT, PARSLEY,
DAVIS & GOTTING, P.C.

Catherine A. Jacobs

Catherine A. Jacobs

cc: Gary Trolz

RECEIVED

JUN 27 2016

NORVELL TOWNSHIP
ASSESSOR'S OFFICE

Michigan Department of Treasury
2766 (Rev. 01-16)

L-4260

Property Transfer Affidavit

This form is issued under authority of P.A. 415 of 1994. Filing is mandatory.

This form must be filed whenever real estate or some types of personal property are transferred (even if you are not recording a deed). The Affidavit must be filed by the new owner with the assessor for the city or township where the property is located within 45 days of the transfer. The information on this form is NOT CONFIDENTIAL.

1. Street Address of Property VARIOUS PARCELS, ARNOLD RD. AND AUSTIN RD.	2. County Jackson	3. Date of Transfer (or land contract signed) ~~May 31, 2016~~ 06-15-2016
4. Location of Real Estate (Check appropriate field and enter name in the space below.) ☐ City ☒ Township ☐ Village Norvell		5. Purchase Price of Real Estate $2,900,000.00 6. Seller's (Transferor) Name GT RANCH, LLC.A MICHIGAN LIMITED LIABILITY COMPANY
7. Property Identification Number (PIN). If you don't have a PIN, attach legal description. PIN. This number ranges from 10 to 25 digits. It usually includes hyphens and sometimes includes letters. It is on the property tax bill and on the assessment notice. (000-20-14-201-001-00,*) 000-20-14-276-001-00, 000-20-13-151-003-00, (000-20-12-176-001-00,*) (000-20-13-251-001-00,*) (000-20-13-400-001-00,*) 000-20-13-201-001-00, 000-20-12-376-001-00, 000-20-13-126-001-00 (000-20-12-251-001-00,*) and 000-20-12-251-002-00 *Part of		8. Buyer's (Transferee) Name and Mailing Address ~~DEPARTMENT OF NATURAL RESOURCES FOR~~ THE STATE OF MICHIGAN PO BOX 30448 LANSING, MI 48909 - 7948 9. Buyer's (Transferee) Telephone Number

Items 10-15 are optional. However, by completing them you may avoid further correspondence.

10. Type of Transfer. Transfers include deeds, land contracts, transfers involving trusts or wills, certain long-term leases and interest in a business. See Page 2 for list.

☐ Land Contract ☐ Lease ☒ Deed ☐ Other (specify) _____

11. Was property purchased from a financial institution? ☐ Yes ☒ No	12. Is the transfer between related persons? ☐ Yes ☐ No	13. Amount of Down Payment
14. If you financed the purchase, did you pay market rate of interest? ☐ Yes ☐ No	15. Amount Financed (Borrowed)	

EXEMPTIONS

Certain types of transfers are exempt from uncapping. If you believe this transfer is exempt, indicate below the type of exemption you are claiming. If you claim an exemption, your assessor may request more information to support your claim.

- ☐ Transfer from one spouse to the other spouse.
- ☐ Change in ownership solely to exclude or include a spouse.
- ☐ Transfer between certain family members *(see page 2).
- ☐ Transfer of that portion of a property subject to a life lease or life estate (until the life lease or life estate expires).
- ☐ Transfer to effect the foreclosure or forfeiture of real property.
- ☐ Transfer by redemption from a tax sale.
- ☐ Transfer into a trust where the settlor or the settlor's spouse conveys property to the trust and is also the sole beneficiary of the trust.
- ☐ Transfer resulting from a court order unless the order specifies a monetary payment.
- ☐ Transfer creating or ending a joint tenancy if at least one person is an original owner of the property (or his/her spouse).
- ☐ Transfer to establish or release a security interest (collateral).
- ☐ Transfer of real estate through normal public trading of stocks.
- ☐ Transfer between entities under common control or among members of an affiliated group.
- ☐ Transfer resulting from transactions that qualify as a tax-free reorganization.
- ☐ Transfer of qualified agricultural property when the property remains qualified agricultural property and affidavit has been filed.
- ☐ Transfer of qualified forest property when the property remains qualified forest property and affidavit has been filed.
- ☐ Transfer of land with qualified conservation easement (land only - not improvements).
- ☐ Other, specify: _____

CERTIFICATION

I certify that the information above is true and complete to the best of my knowledge.

Printed Name
Walter ~~Linn~~ Manager, Closing Unit Real Estate Services

Signature

Date
May 31, 2016

RIDER A

PROPERTY DESCRIPTION

The land referred to is described as follows:

Land in Township of Norvell, Jackson County, Michigan described as:

PARCEL 1: 000-20-13-151-003-00
Commencing at the Northwest corner of the Southwest 1/4 of Northwest 1/4 of Section 13, thence East along the North East-West 1/4, 1/4 section line of the Southwest 1/4 of Northwest 1/4 660 feet for a place of beginning, thence 90 degrees to the left to the North line of the LS & MS Railroad, thence Westerly along said North line to a point in the West North-South Section line of Section 13, (also called the West line of said Section 13) , thence South in said Section line to a point in the South line of the LS & MS Railroad, thence Northeasterly along said South line to a point in a line 660 feet East of the West North-South Section line of Section 13, thence North to the place of beginning, being a part of the West 1/2 of the Northwest 1/4 of Section 13, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan.

PARCEL 2: 000-20-14-276-001-00
Commencing at the Northeast corner of the Southeast 1/4 of the Northeast 1/4 of Section 14, thence South on the East Section line to a point on the North line of the LS & MS Railroad for a place of beginning, thence Southwesterly along said North line to the centerline of Fay Lake Highway, thence South on the centerline of the highway to a point on the South line of the LS & MS Railroad, thence Northeasterly along said South line to a point on the East Section line of Section 14, thence North on said line to the place of beginning, being a part of the South 1/2 of the Northeast 1/4 and Northeast 1/4 of Southwest 1/4 of Section 14, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan.

PARCEL 3: 000-20-14-201-001-00
The Northeast 1/4 of the Northwest 1/4 and the West 1/2 of the Northeast 1/4 of Section 14, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan, excepting and reserving therefrom the land that is situated South of the South line of the railroad right of way of the LS & MS Railroad.

PARCEL 4: Part of 000-20-12-176-001-00
The Southeast 1/4 of the Northwest 1/4 and the Northeast 1/4 of the Southwest 1/4 of Section 12, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan.

PARCEL 5: N/A

PARCEL 6: 000-20-13-400-001-00
All that part of the East 1/2 of the East 1/2 of Section 13, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan, lying South of land owned by the LS & MS Railroad; EXCEPTING therefrom all that portion of land lying Southerly and Easterly of the water's edge of Watkins Lake.

PARCEL 7: 000-20-12-376-001-00
The Southeast 1/4 of the Southwest 1/4 and the South 1/2 of the Southeast 1/4, Section 12, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan.

RIDER "A" CONTINUED

RIDER 'A" CONTINUED

PARCEL 8: 000-20-13-201-001-00
That part of the Northeast 1/4 lying North of the Southerly right of way line of the LS & MS Railroad right of way; ALSO that part of the Northeast 1/4 of the Northwest 1/4 lying North of center of angling highway, Section 13 Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan.

PARCEL 9: Part of 000-20-13-251-001-00
That part of the West 1/2 of the Northeast 1/4 lying South of the Southerly right of way line of LS & MS Railroad, also the Northwest 1/4 of the Southeast 1/4, ALSO beginning in the North-South 1/4 line of Section 13 at a point distant 1149 feet South of the North 1/4 post; thence South 70 degrees 15' West 1346 feet to the West 1/8 line; thence South along the West 1/8 line to the East- West 1/4 line; thence East along the East-West 1/4 line to center of Section, thence North along North-South 1/4 line to beginning, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan, EXCEPTING therefrom the South 740.0 feet of the Southeast 1/4 of the Northwest 1/4 of said Section 13, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan.

PARCEL 10: 000-20-13-126-002-00
Beginning at a point of intersection of Northerly right of way line of LS and MS Railroad, with the West 1/8 line of Section 13, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan, thence North along the West 1/8 line to the center of angling highway; thence Southeasterly along said center line to Northerly right of way line of said railroad; thence Southwesterly along said right of way line to beginning.

PARCEL 11: 000-20-12-251-001-00
The Northwest 1/4 of the Southeast 1/4 of Section 12, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan.
ALSO: The West 1/2 of the Northeast 1/4 of Section 12, lying South of Austin Road, except land described in Liber 770, Page 1172, Jackson County Records, described as beginning at the intersection of the centerline of Austin Road with the East line of the West 1/2 of the Northeast 1/4 of Section 12, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan, thence South along the East line of said West 1/2, 700 feet, thence West 370 feet, thence North parallel to said East line to the centerline of Austin Road, thence Southeasterly along the centerline of Austin Road to the place of beginning.

PARCEL 12: 000-20-12-251-002-00
Beginning at the intersection of the centerline of Austin Road with the East line of the West 1/2 of the Northeast 1/4 of Section 12, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan, thence South along the East line of said West 1/2 700 feet, thence West 370 feet; thence North parallel to said East line to the centerline of Austin Road; thence Southeasterly along the centerline of Austin Road to the place of beginning.

PARCEL 13: N/A

REVISION NO. 2

Jackson County GIS - Interactive Mapping Application

Jackson County Map

Legend

- Remonuments
- Census 2000 Urban Areas
- Census 2000 Blocks
- Census 2000 Block Groups
- Census 2000 Tracts
- Major Road
- Section
- Quarter Section
- School
- Polling Locations
- Parcel

Reference Line

- Condominium Reference Line
- Landhook
- Parcel Reference Line
- Subdivision Reference Line
- Village Reference Line

Boundary

- Condominium
- Drain Centerline
- Drain Easement
- Highway Right of Way
- Hydrology
- Railroad Right of Way
- Right of Way Easement
- Road Right of Way
- Subdivision
- Utility Easement
- Vacated Right of Way

Disclaimer: Jackson County makes no representation, warranty or guarantee as to the content, accuracy, currency or completeness of the information provided. Jackson County explicitly disclaims any representations, warranties and guarantees, including, without limitation, the implied warranties of merchantability and suitability.

Water - 41
Woods 3
LWoods 9
Swamp 5
Tillable 120.30
Brush/Pasture - 23.7

202 A

ALONG ARNOLD RD + ACROSS FROM 14431 HORNING RD

Parcel Number: 008-20-13-251-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 04/30/2012

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
ARNOLD RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD PO BOX
JACKSON MI 49202

Description
THAT PART OF W 1/2 OF NE 1/4 LYING S OF SLY R/W LN OF LS & MS RR ALSO NW 1/4 OF SE 1/4 ALSO BEG IN N&S 1/4 LN OF SEC 13 AT A PT DISTANT 1149 FT S OF N 1/4 POST TH S 70&15'W 1346 FT TO W 1/8 LN TH S ALG W 1/8 LN TO E&W 1/4 LN TH E ALG E&W 1/4 LN TO CEN OF SEC TH N ALG N&S 1/4 LN TO BEG ALSO E 1/2 OF SW 1/4. SEC 13 T4S R2E

Comments/Influences

Class: Agricultural Vaca | Zoning: RES

School: District 38040

P.R.E. 100% / /

Map #:

2012 Est TCV 489,235

Building Permit(s)	Date	Number	Status

Improved	X	Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

The Equalizer. Copyright (c) 1999 - 2000. Licensed to: Norvell Township, Jackson County

Who	When	What
JG	03/28/2011	Data Ent
JG	03/27/2011	Inspecte

Land Value Estimates for Land Table 00050.80 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Rate Table CONSERVATION	23.70 Acres		3250	100				77,025
Rate Table 101 - 200 ACRES	120.30 Acres		2200	100				264,660
Rate Table SW/WW - 10-40A	14.00 Acres		950	100				13,300
Rate Table WOODS- 10-40 AC	3.00 Acres		3750	100				11,250
Rate Table POND/GOOD	41.00 Acres		3000	100				123,000
	202.00 Total Acres				Total Est. Land Value =			489,235

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2012	244,620		244,620			89,885C
2011	303,000		303,000			87,522C
2010	318,150		318,150			86,059C
2009	318,150		318,150			86,318C

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-13-251-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 03/31/2010

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
ARNOLD RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD PO BOX
JACKSON MI 49202

Description
THAT PART OF W 1/2 OF NE 1/4 LYING S OF SLY R/W LN OF LS & MS RR ALSO NW 1/4 OF SE 1/4 ALSO BEG IN N&S 1/4 LN OF SEC 13 AT A PT DISTANT 1149 FT S OF N 1/4 POST TH S 70°15'W 1346 FT TO W 1/8 LN TH S ALG W 1/8 LN TO E&W 1/4 LN TH E ALG E&W 1/4 LN TO CEN OF SEC TH N ALG N&S 1/4 LN TO BEG ALSO E 1/2 OF SW 1/4. SEC 13 T4S R2E

Comments/Influences

Class: Agricultural Vaca Zoning: RES
School: District 38040
P.R.E. 100% / /
Map #:
2010 Est TCV 636,300

Building Permit(s)	Date	Number	Status

Improved | X | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who When What

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Acreage Table 'A'			202.000 Acres		1750	180	DEVELOPMENT	636,300
			202.00 Total Acres		Total Est. Land Value =			636,300

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2010	318,150		318,150			86,059C
2009	318,150		318,150			86,318C
2008	318,150		318,150			82,681C
2007	318,150		318,150			80,823C

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Licensed to: Norvell Township, Jackson County

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-13-251-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 03/10/2009

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address

ARNOLD RD

Owner's Name/Address

GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD PO BOX
JACKSON MI 49202

Legal Description

THAT PART OF W 1/2 OF NE 1/4 LYING S OF SLY R/W LN OF LS & MS RR ALSO NW 1/4 OF SE 1/4 ALSO BEG IN N&S 1/4 LN OF SEC 13 AT A PT DISTANT 1149 FT S OF N 1/4 POST TH S 70%15'W 1346 FT TO W 1/8 LN TH S ALG W 1/8 LN TO E&W 1/4 LN TH E ALG E&W 1/4 LN TO CEN OF SEC TH N ALG N&S 1/4 LN TO BEG ALSO E 1/2 OF SW 1/4. SEC 13 T4S R2E

Comments/Influences

Class: Agricultural Vaca | Zoning: RES

School: District 38040

P.R.E. 100% / /

Map #:

2009 Est TCV 636,300

Building Permit(s)	Date	Number	Status

Improved | X | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who When What

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Acreage Table 'A'			202.000 Acres		1750	180	DEVELOPMENT	636,300
			202.00 Total Acres		Total Est. Land Value =			636,300

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2009	318,150		318,150			86,318C
2008	318,150		318,150			82,681C
2007	318,150		318,150			80,823C
2006	284,777		284,777			77,940C

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Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-13-251-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 05/14/2008

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address

ARNOLD RD

Owner's Name/Address

GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD PO BOX
JACKSON MI 49202

Legal Description

THAT PART OF W 1/2 OF NE 1/4 LYING S OF SLY R/W LN OF LS & MS RR ALSO NW 1/4 OF SE 1/4 ALSO BEG IN N&S 1/4 LN OF SEC 13 AT A PT DISTANT 1149 FT S OF N 1/4 POST TH S 70%15'W 1346 FT TO W 1/8 LN TH S ALG W 1/8 LN TO E&W 1/4 LN TH E ALG E&W 1/4 LN TO CEN OF SEC TH N ALG N&S 1/4 LN TO BEG ALSO E 1/2 OF SW 1/4. SEC 13 T4S R2E

Comments/Influences

Class: Agricultural Vaca | Zoning: RES

School: District 38040

P.R.E. 100% / /

Map #:

2008 Est TCV 636,300

Building Permit(s)	Date	Number	Status

Improved | X | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who When What

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

* Factors *

Description	Frontage	Depth	Front	Depth	Rate	%Adj.	Reason	Value
Acreage Table 'A'		202.000 Acres			1750	160		636,300
		202.00 Total Acres			Total Est. Land Value =			636,300

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2008	318,150		318,150			82,681C
2007	318,150		318,150			80,823C
2006	284,777		284,777			77,940C
2005	273,850		273,850			75,451C

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Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-13-251-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 05/21/2007

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address

ARNOLD RD

Owner's Name/Address

GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD PO BOX
JACKSON MI 49202

Legal Description

THAT PART OF W 1/2 OF NE 1/4 LYING S OF SLY R/W LN OF LS & MS RR ALSO NW 1/4 OF SE 1/4 ALSO BEG IN N&S 1/4 LN OF SEC 13 AT A PT DISTANT 1149 FT S OF N 1/4 POST TH S 70*15'W 1346 FT TO W 1/8 LN TH S ALG W 1/8 LN TO E&W 1/4 LN TH E ALG E&W 1/4 LN TO CEN OF SEC TH N ALG N&S 1/4 LN TO BEG ALSO E 1/2 OF SW 1/4. SEC 13 T4S R2E

Comments/Influences

Class: Agricultural Vaca Zoning: RES

School: District 38040

P.R.E. 100% / /

Map #:

2007 Est TCV 636,300

Building Permit(s)	Date	Number	Amount

Improved | X | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who When What

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	Front Depth	Rate	%Adj.	Reason	Value
		* Factors *					
Acreage Table 'A'		202.000 Acres		1750	180		636,300
		202.00 Total Acres			Total Est. Land Value =		636,300

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2007	318,150		318,150			80,823C
2006	284,777		284,777			77,940C
2005	273,850		273,850			75,451C
2004	263,640		263,640			73,755C

The Equalizer. Copyright (c) 1999 - 2000. Licensed to Norvell Township, Jackson County

Information herein deemed reliable but not guaranteed

Michigan Department of Treasury
T-1063 (5/94)

Issued under P.A. 331 of 1993, or P.A. 312 of 1993.
Filing is required if you wish to receive an exemption.

CLAIM FOR FARMLAND EXEMPTION FROM SOME SCHOOL OPERATING TAXES

Do you need to file this claim?

If you answer "YES" to either of these questions, you do NOT need to file this form.

- ➔ Is the property vacant and classified agricultural?
  (Note: Vacant property classified as agricultural is automatically exempt from some school taxes and the changes will be made on your next tax bill.)
- ➔ Have you already filed the *Homestead Exemption Affidavit* for this property?

If you answered "NO" to both of these questions and the property is used primarily for agricultural purposes but is not classified as agricultural, complete this form and file it with your local unit by **June 1, 1994.**

If your property has a residence or other buildings on it, your assessor may ask you to complete this form.

Section 1. File a separate claim for each qualified parcel.

1. Name of Owner (first, middle, last)
GLYNN TROLZ & ASSOCIATES, INC.

Name of Co-Owner (first, middle, last)

Street Address of Property Claimed
3460 Ann Arbor Rd.

City and State | ZIP Code
Jackson, MI | 49202

Name of Township or City where Property is Located | County of Property
Norvell | Jackson

Check one: ☑ Township ☐ City

2. Enter below the property tax identification number of the qualified property you are claiming. This number is on your tax bill or your assessment notice. Start at the left and leave any extra spaces blank. Use a full space for any hyphens (-) in the number.

0 0 0 - 2 0 - 1 3 - 2 5 1 - 0 0 1 - 0 0

Section 2: Farmland.

a. If this property is **not** classified as agricultural, is more than 50% of the acreage devoted to an agricultural use? (Skip this question if your property is classified agricultural.) ☐ Yes ☐ No

b. Does this property include any residences occupied by a person who is not involved in the agricultural operation? ☒ Yes ☐ No

c. If the property includes a residence, has the occupant filed a *Homestead Exemption Affidavit* for a different residence? ☐ Yes ☐ No

d. Does this property include any buildings not involved in the agricultural operation? ☐ Yes ☐ No

If you answered 'yes' to items 2b, 2c or 2d, part of your property does not qualify. You must enter a percentage in Section 3.

Section 3: Multi-Purpose Property. *If you answered 'yes' to item 2b, 2c or 2d, give the percentage of the property value that is devoted to agricultural use. Exclude from this percentage the value of any property that does not qualify (see instructions on back). This information is necessary for your township or city to adjust your property taxes properly. (See back for computation.)* 20 %

Certification: ***This affidavit is invalid unless it is signed.***

I certify, under penalty of perjury, that I own (or co-own) the property claimed on this affidavit, that it is qualified agricultural property, and that all information is true to the best of my knowledge.

Owner's Signature	Date	Co-Owner's Signature	Date
[signature]	5-26-94		

COUNTY [illegible]

TOWNSHIP [illegible]

OWNER [illegible] ASSOCIATES

DESCRIPTION CODE No. T13-1,13A,3

SECTION _____ TOWN _____ RANGE _____

3450 PAW ARBOR RD

[illegible], MI

PHYSICAL AND ECONOMIC FACTORS

Type of Road _____

Trading Center (name) _____ miles

Market (name) _____ miles

School (type) _____ miles

☐ Electricity ☐ Telephone ☐ Gas Line

PART of LARGER [illegible]

20-13-201-00100 84 AC

23,200

20-13-251-00100 202 AC

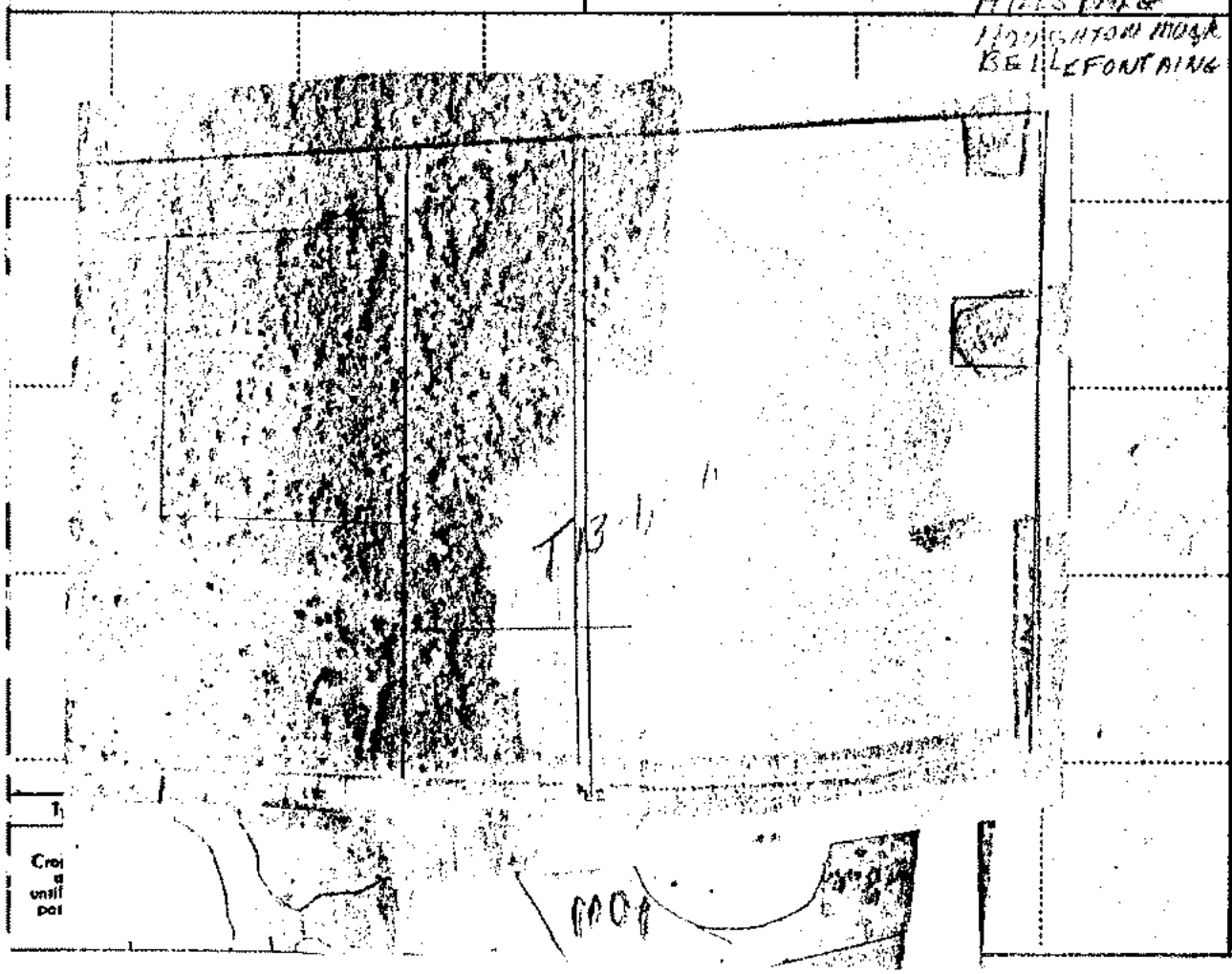
65,000

88,200 286 AC

HILLSDALE

HOUGHTON MUCK

BELLEFONTAINE



FRUIT

Type	Acres or No.	Age	Rate	Total
	286		$	$
HIGH	168.2		950	159,790
H WOOD	26.6		713	18,966
W WOOD	7.1		143	1,015
P.P	25.9		238	6,164
SWAMP	16.2		143	2,317
R/W	6			
LAKE	36+/-			

Total Fruit $ 188,252

LAND VALUE

Area No.	No. Acres	Value/A.	Total
		$	$

Total Land $

SUMMARY OF APPRAISAL

TOTAL LAND . . . . . $

TOTAL FRUIT . . . . . .

TOTAL BUILDINGS . . . . . .

TOTAL APPRAISED VALUE . . . . . $

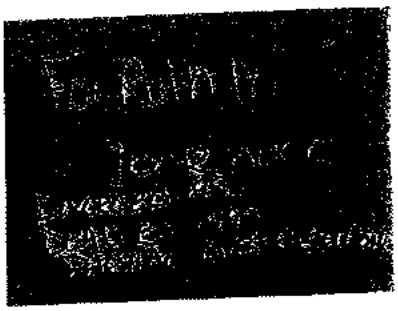
Board of Review	1983	19	19	19
LAND				
BUILDINGS				
Total	88,200			
State Tax Commission				46.86
LAND				
BUILDINGS				
Total				

RECEIVED
9/8/2014

LOOMIS

LOOMIS, EWERT, PARSLEY, DAVIS & GOTTING P.C.

ATTORNEYS AT LAW



JACK C. DAVIS PC
KARL L. GOTTING PLLC
JAMES R. NEAL
KENNETH W. BEALL PLLC
MICHAEL G. OLIVA
CATHERINE A. JACOBS
MICHAEL H. RHODES [1,2]
JEFFREY L. GREEN
JEFFREY S. THEUER[3]
KEVIN J. RORAGEN
RICHARD W. PENNINGS

TED S. ROZEBOOM
MICHAEL F. MATHESON[4]
SARA L. CUNNINGHAM[1]
TRACEY L. LACKMAN
JAMES F. ANDERTON, V[5]
MICHAEL G. STEFANKO[7]
MIEKE V. WEISSERT
LEAH J. BROOKS
WARREN H. KRUEGER, III
ELIZABETH HUSA BRIGGS[6]
DOMINIC R. RIOS

OF COUNSEL:
WILLIAM D. PARSLEY
MICHAEL A. HOLMES
PAULA K. MANIS PLLC[1,4,8]
KELLY REED LUCAS[8]
COLIN W. MAGUIRE

[1] ALSO LICENSED IN OH
[2] ALSO LICENSED IN PA
[3] ALSO LICENSED IN MD
[4] ALSO LICENSED IN IL
[5] ALSO LICENSED IN FL
[6] ALSO LICENSED IN NY
[7] ALSO CPA
[8] EASTWOOD OFFICE

August 28, 2014

Ms. Ruth A. Scott, Assessor of Record
Norvell Township
PO Box 385
Norvell, Michigan 49263-0188

Re: Transfers from Estate of Glynn Trolz, Glynn Trolz and Associates to G.T. Ranch LLC

Dear Ms. Scott:

I am writing this letter to follow through on discussions regarding the tax exemptions for transfers between the above entities.

The following parcels were transferred from the Estate of Glynn A. Trolz to Glynn Trolz and Associates, Inc.:

000-20-12-251-002-00
000-20-12-276-001-00

Those properties were then transferred from Glynn Trolz and Associates to GT Ranch, LLC

In addition, the following parcels were transferred from Glyn Trolz and Associates to GT Ranch, LLC.

000-20-12-101-001-00
000-20-12-176-001-00
000-20-12-251-001-00
000-20-12-251-002-00

LANSING OFFICE:
124 W. ALLEGAN STREET, SUITE 700
LANSING, MI 48933-1784
517-482-2400

EASTWOOD OFFICE:
2400 LAKE LANSING ROAD, SUITE E
LANSING, MI 48912-3674
517-485-0400

000-20-12-376-001-00
000-20-12-376-001-00

000-20-13-151-001-00
000-20-13-151-003-00
000-20-13-201-001-00
000-20-13-251-001-00
000-20-13-301-001-00
000-20-13-400-001-00

000-20-14-201-001-00
000-20-14-276-001-00
000-20-14-400-001-00
000-20-24-200-001-00
000-20-24-301-001-00
000-20-24-301-002-00
000-20-24-351-001-00

000-20-25-101-001-00

In my opinion, all of these parcels would be exempt from having the real estate taxes uncapped under two theories: 1) the properties are qualified agricultural property MCL 211.7dd; and 2) commonly controlled entities, MCL 211.27a(7)(1). The agricultural property exemption is clear. However, I want to give you the history of the corporations and individuals and the exemption under the commonly controlled entities theory.

The beneficiaries of the Estate of Glynn A. Trolz at the time of the transfers were Gary Trolz, Glynn Trolz, II, James Trolz and Lisa Hunt. Glynn Trolz and Associates had only one stockholder, Glynn A. Trolz, and therefore, when he died, the sole shareholder was the Estate of Glynn A. Trolz. Therefore, when the transfers occurred from the Estate of Glynn A. Trolz to Glynn Trolz and Associates, the control was the same individuals, the ultimate beneficiaries of the estate, Gary Trolz, Glynn Trolz II, James Trolz and Lisa Hunt. Glynn Trolz and Associates, Inc. then established GT Ranch, LLC and was the sole member of GT Ranch, LLC. Because the beneficiaries, Gary Trolz, Glynn Trolz, II, James Trolz and Lisa Hunt were vested owners of Glynn Trolz and Associates, Inc., they were the only vested owners of GT Ranch, LLC at the time the transfers occurred.

The State Tax Commission has directed that the Michigan Revenue Administrative Bulletin 1989-48 is to be used in determining whether entities are commonly controlled. The Michigan Revenue Administrative Bulletin 1989-48 and case law determining common control look to the owners of an entity to see if they are common and to the beneficiaries of trusts and estates, such as you have in this instance. Who is the trustee of a trust or personal representative of an estate is not the issue. The issue is who are the beneficiaries of these entities. In *Sebastian J. Mancuso Family Trust v City of Charlevoix COA, unpublished February 5, 2013,* the court

held that beneficiaries have an ownership interest in the property. Therefore, two entities with the same beneficiaries may constitute "commonly controlled" entities. This finding was based on the fact that although the trustee, or personal representative, has extensive control over the trust, or the estate, he or she is ultimately liable to the beneficiaries. The Michigan Tax Tribunal applied the *Mancuso Family Trust* decision and found that a trust (estate) and a partnership were legal entities which were commonly controlled by looking through to the beneficiaries of the trust (estate). The beneficiaries have the control of the trust and the trust was the sole owner of the partnership. In the case of the Trolz family, the beneficiaries of the Estate of Glynn A. Trolz were the ultimate owners of Glynn Trolz and Associates, Inc. and the ultimate owners of GT Ranch, LLC, which was solely owned by Glynn Trolz and Associates, Inc.

In my opinion, the transfers addressed in this letter are exempt under MCL 211.7dd and MCL 211.27a(7)(1). I do not recall if the proper documentation had been given to you at the time of recording. If the proper documents were not presented to you at the time of recording, please let me know and I will have them completed.

Very truly yours,

LOOMIS, EWERT, PARSLEY,
DAVIS & GOTTING, P.C.

Catherine A. Jacobs

Catherine A. Jacobs

cc: Gary Trolz

RECEIVED

JUN 27 2016

NORVELL TOWNSHIP
ASSESSOR'S OFFICE

Michigan Department of Treasury
2766 (Rev. 01-16)

L-4260

Property Transfer Affidavit

This Affidavit is issued under authority of P.A. 415 of 1994. Filing is mandatory.

This form must be filed whenever real estate or some types of personal property are transferred (even if you are not recording a deed). **The Affidavit must be filed by the new owner with the assessor for the city or township where the property is located within 45 days of the transfer.** The information on this form is NOT CONFIDENTIAL.

1. Street Address of Property	2. County	3. Date of Transfer (or land contract signed)
VARIOUS PARCELS, ARNOLD RD. AND AUSTIN RD.	Jackson	~~May 31, 2016~~ 06-15-2016

4. Location of Real Estate (Check appropriate field and enter name in the space below.)	5. Purchase Price of Real Estate
☐ City ☒ Township ☐ Village Norvell	$2,900,000.00
	6. Seller's (Transferor) Name GT RANCH, LLC.A MICHIGAN LIMITED LIABILITY COMPANY
7. Property Identification Number (PIN). If you don't have a PIN, attach legal description. PIN. This number ranges from 10 to 25 digits. It usually includes hyphens and sometimes includes letters. It is on the property tax bill and on the assessment notice. (000-20-14-201-001-00, 000-20-14-276-001-00, 000-20-13-151-003-00, (000-20-12-176-001-00, 000-20-13-251-001-00, *) (000-20-13-400-001-00, 000-20-13-201-001-00, 000-20-12-376-001-00, 000-20-13-126-001-00 (000-20-12-251-001-00, *) and 000-20-12-251-002-00 *Part of	8. Buyer's (Transferee) Name and Mailing Address ~~DEPARTMENT OF NATURAL RESOURCES FOR~~ THE STATE OF MICHIGAN PO BOX 30448 LANSING, MI 48909 - 7948 9. Buyer's (Transferee) Telephone Number

Items 10-15 are optional. However, by completing them you may avoid further correspondence.

10. Type of Transfer. Transfers include deeds, land contracts, transfers involving trusts or wills, certain long-term leases and interest in a business. See Page 2 for list.

☐ Land Contract ☐ Lease ☒ Deed ☐ Other (specify) _____

11. Was property purchased from a financial institution?	12. Is the transfer between related persons?	13. Amount of Down Payment
☐ Yes ☒ No	☐ Yes ☐ No	

14. If you financed the purchase, did you pay market rate of interest?	15. Amount Financed (Borrowed)
☐ Yes ☐ No	

EXEMPTIONS

Certain types of transfers are exempt from uncapping. If you believe this transfer is exempt, indicate below the type of exemption you are claiming. If you claim an exemption, your assessor may request more information to support your claim.

- ☐ Transfer from one spouse to the other spouse.
- ☐ Change in ownership solely to exclude or include a spouse.
- ☐ Transfer between certain family members *(see page 2).
- ☐ Transfer of that portion of a property subject to a life lease or life estate (until the life lease or life estate expires).
- ☐ Transfer to effect the foreclosure or forfeiture of real property.
- ☐ Transfer by redemption from a tax sale.
- ☐ Transfer into a trust where the settlor or the settlor's spouse conveys property to the trust and is also the sole beneficiary of the trust.
- ☐ Transfer resulting from a court order unless the order specifies a monetary payment.
- ☐ Transfer creating or ending a joint tenancy if at least one person is an original owner of the property (or his/her spouse).
- ☐ Transfer to establish or release a security interest (collateral).
- ☐ Transfer of real estate through normal public trading of stocks.
- ☐ Transfer between entities under common control or among members of an affiliated group.
- ☐ Transfer resulting from transactions that qualify as a tax-free reorganization.
- ☐ Transfer of qualified agricultural property when the property remains qualified agricultural property and affidavit has been filed.
- ☐ Transfer of qualified forest property when the property remains qualified forest property and affidavit has been filed.
- ☐ Transfer of land with qualified conservation easement (land only - not improvements).
- ☐ Other, specify: _____

CERTIFICATION

I certify that the information above is true and complete to the best of my knowledge.

Printed Name	Date
Walter Lunn Manager, Closing Unit Real Estate Services	May 31, 2016
Signature	

RIDER A

PROPERTY DESCRIPTION

The land referred to is described as follows:

Land in Township of Norvell, Jackson County, Michigan described as:

PARCEL 1: 000-20-13-151-003-00
Commencing at the Northwest corner of the Southwest 1/4 of Northwest 1/4 of Section 13, thence East along the North East-West 1/4, 1/4 section line of the Southwest 1/4 of Northwest 1/4 660 feet for a place of beginning, thence 90 degrees to the left to the North line of the LS & MS Railroad, thence Westerly along said North line to a point in the West North-South Section line of Section 13, (also called the West line of said Section 13) , thence South in said Section line to a point in the South line of the LS & MS Railroad, thence Northeasterly along said South line to a point in a line 660 feet East of the West North-South Section line of Section 13, thence North to the place of beginning, being a part of the West 1/2 of the Northwest 1/4 of Section 13, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan.

PARCEL 2: 000-20-14-276-001-00
Commencing at the Northeast corner of the Southeast 1/4 of the Northeast 1/4 of Section 14, thence South on the East Section line to a point on the North line of the LS & MS Railroad for a place of beginning, thence Southwesterly along said North line to the centerline of Fay Lake Highway, thence South on the centerline of the highway to a point on the South line of the LS & MS Railroad, thence Northeasterly along said South line to a point on the East Section line of Section 14, thence North on said line to the place of beginning, being a part of the South 1/2 of the Northeast 1/4 and Northeast 1/4 of Southwest 1/4 of Section 14, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan.

PARCEL 3: 000-20-14-201-001-00
The Northeast 1/4 of the Northwest 1/4 and the West 1/2 of the Northeast 1/4 of Section 14, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan, excepting and reserving therefrom the land that is situated South of the South line of the railroad right of way of the LS & MS Railroad.

PARCEL 4: Part of 000-20-12-176-001-00
The Southeast 1/4 of the Northwest 1/4 and the Northeast 1/4 of the Southwest 1/4 of Section 12, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan.

PARCEL 5: N/A

PARCEL 6: 000-20-13-400-001-00
All that part of the East 1/2 of the East 1/2 of Section 13, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan, lying South of land owned by the LS & MS Railroad; EXCEPTING therefrom all that portion of land lying Southerly and Easterly of the water's edge of Watkins Lake.

PARCEL 7: 000-20-12-376-001-00
The Southeast 1/4 of the Southwest 1/4 and the South 1/2 of the Southeast 1/4, Section 12, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan.

RIDER "A" CONTINUED

RIDER 'A" CONTINUED

PARCEL 8: 000-20-13-201-001-00
That part of the Northeast 1/4 lying North of the Southerly right of way line of the LS & MS Railroad right of way; ALSO that part of the Northeast 1/4 of the Northwest 1/4 lying North of center of angling highway, Section 13 Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan.

Part of
PARCEL 9: 000-20-13-251-001-00
That part of the West 1/2 of the Northeast 1/4 lying South of the Southerly right of way line of LS & MS Railroad, also the Northwest 1/4 of the Southeast 1/4, ALSO beginning in the North-South 1/4 line of Section 13 at a point distant 1149 feet South of the North 1/4 post; thence South 70 degrees 15' West 1346 feet to the West 1/8 line; thence South along the West 1/8 line to the East- West 1/4 line; thence East along the East-West 1/4 line to center of Section, thence North along North-South 1/4 line to beginning, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan, EXCEPTING therefrom the South 740.0 feet of the Southeast 1/4 of the Northwest 1/4 of said Section 13, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan.

PARCEL 10: 000-20-13-126-004-00
Beginning at a point of intersection of Northerly right of way line of LS and MS Railroad, with the West 1/8 line of Section 13, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan, thence North along the West 1/8 line to the center of angling highway; thence Southeasterly along said center line to Northerly right of way line of said railroad; thence Southwesterly along said right of way line to beginning.

PARCEL 11: 000-20-12-251-001-00
The Northwest 1/4 of the Southeast 1/4 of Section 12, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan.
ALSO: The West 1/2 of the Northeast 1/4 of Section 12, lying South of Austin Road, except land described in Liber 770, Page 1172, Jackson County Records, described as beginning at the intersection of the centerline of Austin Road with the East line of the West 1/2 of the Northeast 1/4 of Section 12, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan, thence South along the East line of said West 1/2, 700 feet, thence West 370 feet, thence North parallel to said East line to the centerline of Austin Road, thence Southeasterly along the centerline of Austin Road to the place of beginning.

PARCEL 12: 000-20-12-251-002-00
Beginning at the intersection of the centerline of Austin Road with the East line of the West 1/2 of the Northeast 1/4 of Section 12, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan, thence South along the East line of said West 1/2 700 feet, thence West 370 feet; thence North parallel to said East line to the centerline of Austin Road; thence Southeasterly along the centerline of Austin Road to the place of beginning.

PARCEL 13: N/A

REVISION NO. 2

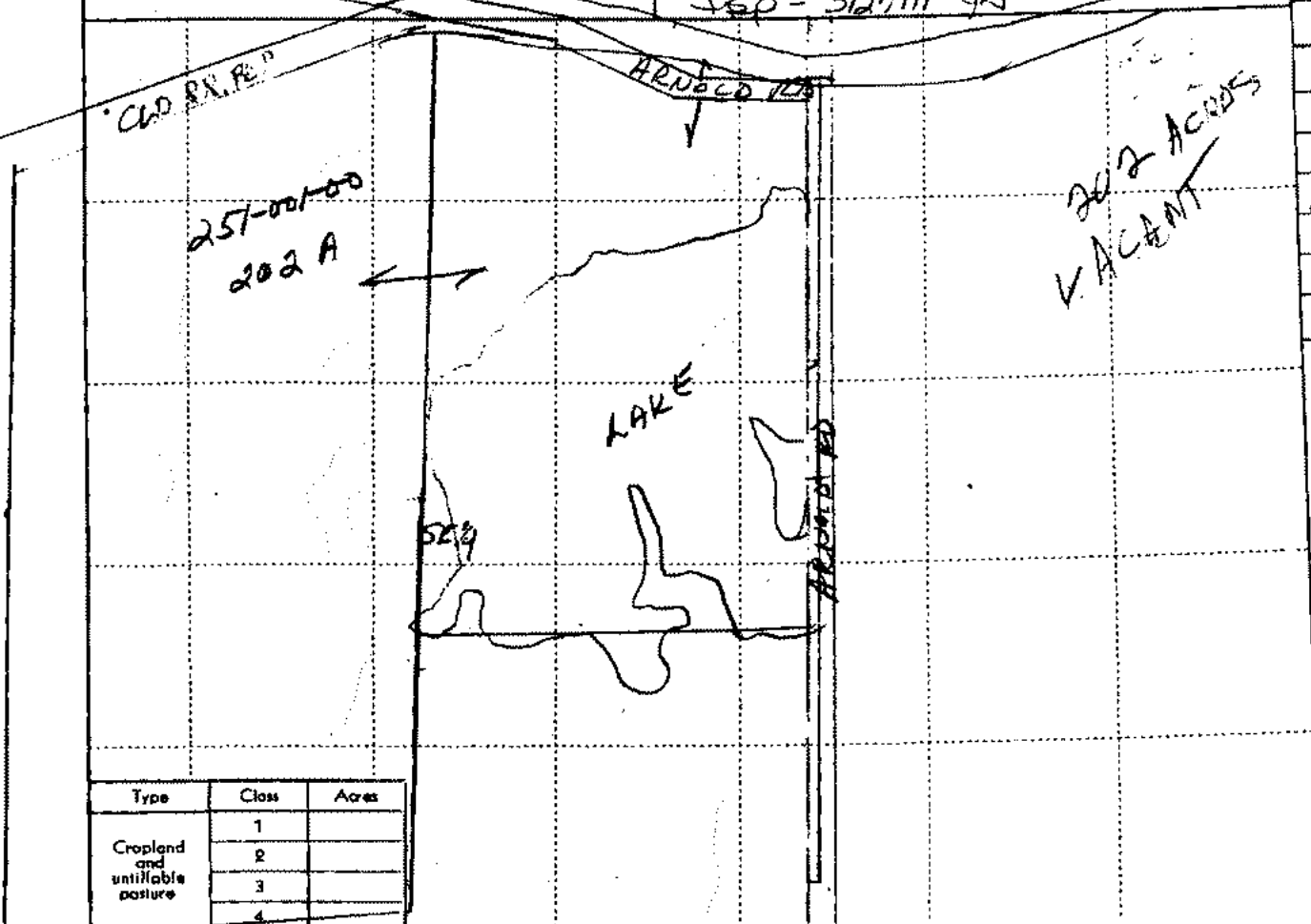
FARM ASSESSMENT RECORD

000-20-13-251-001-00
GLYNN TROLZ & ASSOC INC
3450 ANN ARBOR RD PO BOX 249
JACKSON MI 49202

PHYSICAL AND ECONOMIC FACTORS

Road _____
ter (name) _____ miles
me) _____ miles
e) _____ miles
ity ☐ Telephone ☐ Gas Line

WATER - 81
WOODS - 3
L.WOODS - 9
SWAMP - 5
TILLABLE - 120.30
BRUSH/PASTURE - 23.7
JSP - 3/27/11 JA



Type	Class	Acres
Cropland and untillable pasture	1	
	2	
	3	
	4	

FRUIT

Type	Acres or No.	Age	Rate	Total
202 A			$	$
High	142.00			
[illegible]	8.40			
[illegible]	4.00			
Swamp	7.10			
R/W	4.50			
Lake	36 [illegible]			

Total Fruit $

LAND VALUE

202

Area No.	No. Acres	Value/A.	Total
RW	4.50 A	$	$
	142.00	700	99,400
	55.5	400	22,200
			121,600

Total Land $

91

SUMMARY OF APPRAISAL

TOTAL LAND . . . . . $
TOTAL FRUIT . . . . . .
TOTAL BUILDINGS. . . . . .
TOTAL APPRAISED VALUE . . . . . $

Board of Review	1977	1978	1979	
LAND	45,000	46,000	49,000	[illegible]
BUILDINGS	92	94		
Total	60000	60000		
State Tax Commission	81	82	85	[illegible]
LAND	58,000	65,000	63,000	[illegible]
BUILDINGS				
Total	88	89	90	

1. Type
Single Family

2. Frame
Wood

3. Exterior
Wood
Aluminum
Brick
Block

4. Roof
Hip
Gable
Front Overhang
Other Overhang
Eavestrough
Chimney Type:
Brick
Block
Stone
Metal
Asphalt Shingles

5. Windows
Many
Few
Large
Small
Wood Sash
Metal Sash
Double Hung
Hor. Sliding
Double Glass
Complete Trim
No Inside Trim
Storms & Scr.

Year Built:

Remod.

Rooms

10. Floor Support
Joists " x " o.c.
Unsupported Length ft.
Sill Plate: ☐ Yes ☐ No
Diag. Sub-Floor " x "
Ply. Sub-Floor " x "
Center Support

11. Basement & Foundation
Crawl Space s.f.
Slab House s.f.
Basement s.f.
Height to Joists ft.
Concrete Block "
Concrete Walls "
Concrete Floor
Asphalt Tile s.f.
Recreation Room s.f.

12. Heating & Air Conditioning
Gas - Forced Warm Air
Oil - Forced Warm Air
Gas | Oil | Coal
Wall Fur. | Floor Fur.
Stove or Space Heat
Steam Radiators
Forced Warm Water
AIR CONDITIONER tons
FIREPLACE ft.

13. Interior
Trim & Decoration:
Elab. | Ord. | Min.
Size of Closets:
Large | Ord. | Small
Number of Closets:
Many | Ord. | Few
No. & Qual. Electric Fixtures:
Ex. | Ord. | Min.
No. Electric Outlets:
Many | Ord. | Few
Foyer
Kit. Fl.
Other Fl.
Drywall
Plaster
Coved Ceilings
Paneled Wainscot
Hardware Qual.

14. Plumbing
No. of Baths $
Cer. Tile Walls
Cer. Tile Floor
Plastic Tile Walls
Extra Stool
Extra Wash Bowl
Water Heater:
Gals. | Gas | Elec.

15. Built-in Items
Oven Range $
Disposal
Hood & Fan
Dishwasher
Refrigerator
Incinerator
Vanities
Cupboard Length
Cupboard Quality

16. Garage
Year Built
Attached | Separate
Cars | Condition
Wide | Deep
Walls
Floor
Doors
Common Wall
Other Walls
Ceiling

17. Porches

Wide	Deep	Type

Priced by
Date
Checked By
Date

CLASS Size for Rates
Typical Classes of Other Houses in this Neighborhood
Neighborhood is ☐ Improving ☐ Stable ☐ Declining
Condition for Age
Effective Age

ITEM OR NO. STORIES	SQUARE FEET	UNIT COST	BASE VALUE	DEPR. & OBSOL. % GOOD	DEPR. VALUE
		$	$		$

Total Depr. Value $ _____

Econ. Cond. Factor x _____ %

True Cash Value $ _____

Parcel Number: 000-20-13-400-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 04/27/2012

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
4760 HORNING RD

Owner's Name/Address
GLYNN TROL2 & ASSOC INC
4460 ANN ARBOR RD PO BOX
JACKSON MI 49202

Description
THAT PART OF E 1/2 OF E 1/2 OF SEC 13
LYING SOUTH OF LD OF LS & MS RR ALSO SW
1/4 OF SE 1/4. SEC 13 T4S R2E

Comments/Influences

Class: Agricultural | Zoning: RES

School: District 38040

P.R.E. 92% / /

Map #:

2012 Est TCV 844,206 TCV/TFA: 201.67

Building Permit(s)	Date	Number	Status

X Improved | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Rate Table POND/GOOD		111.00 Acres			3000	100		333,000
Rate Table BUILDING SITE		2.00 Acres			10000	100		20,000
Rate Table ROAD R/W		6.00 Acres			0	100		
Rate Table +40 - 80 ACRES		47.00 Acres			3750	100		176,250
		166.00 Total Acres					Total Est. Land Value =	529,250

Land Improvement Cost Estimates

Description	Rate	CountyMult.	Size	%Good	Cash Value
D/W/P: Asphalt Paving	1.61	1.00	4500	58	4,202
Total Estimated Land Improvements True Cash Value =					4,202

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2012	264,630	157,470	422,100			166,116C
2011	184,380	209,020	393,400			161,749C
2010	225,130	247,280	472,410			159,046C
2009	225,130	259,630	484,760			159,525C

Who	When	What
JG	12/03/2011	Data Ent
JG	11/28/2011	Inspecte

The Equalizer. Copyright (c) 1999 - 2000.
Licensed to: Norvell Township, Jackson County

*** Information herein deemed reliable but not guaranteed ***

Building Type
X Single Family
Mobile Home
Town Home
Duplex
A-Frame

X Wood Frame

Building Style: 2 STORY

YearBuilt 0 | Remodeled

Condition for Age: Good

Room List
Basement
1st Floor
2nd Floor
Bedrooms

(1) Exterior
X Wood/Shingle
Aluminum/Vinyl
Brick

Insulation

(2) Windows
X Many Ave. Few | X Large Ave. Small

Wood Sash
Metal Sash
Vinyl Sash
Double Hung
Horiz. Slide
Casement
Double Glass
Patio Doors
Storms&Screens

(3) Roof
X Gable | Gambrel
Hip | Mansard
Flat | Shed

X Asphalt Shingle

Chimney: Brick

(3) Roof (cont.)
Eavestrough
Insulation
0 Front Overhang
0 Other Overhang

(4) Interior
Drywall Paneled | Plaster Wood T&G

Trim & Decoration: Ex | X Ord | Min

Size of Closets: Lg | X Ord | Small

Doors: Solid | X H.C.

(5) Floors
Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation
Basement: 1234 S.F.
Crawl: 864 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement
Conc. Block
Poured Conc.
Stone
Treated Wood
Concrete Floor

(9) Basement Finish
Recreation SF
Living SF
Walkout Doors
No Floor SF

(10) Floor Support
Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling
X Gas | Oil | Elec.
Wood | Coal | Steam

X Forced Air w/o Ducts
Forced Air w/ Ducts
Forced Hot Water
Electric Baseboard
Elec. Ceil. Radient
Radiant (in-floor)
Electric Wall Heat
Space Heater
Wall/Floor Furnace
Forced Heat & Cool
Heat Pump
No Heating/Cooling

Central Air
Wood Furnace

(12) Electric
Amps Service

No./Qual. of Fixtures: Ex. | X Ord. | Min

No. of Elec. Outlets: Many | X Ave. | Few

(13) Plumbing
2 Average Fixture(s)
3 Fixture Bath
2 Fixture Bath
Softener, Auto
Softener, Manual
Solar Water Heat
No Plumbing
Extra Toilet
Extra Sink
Separate Shower
Ceramic Tile Floor
Ceramic Tile Wains
Ceramic Tub Alcove
Vent Fan

(14) Water/Sewer
Public Water
Public Sewer
1 Water Well
1 1000 Gal Septic
2000 Gal Septic

Lump Sum Items:

(15) Built-ins
1 Appliance Allow.
Cook Top
1 Dishwasher
Garbage Disposal
Bath Heater
Vent Fan
Hot Tub
Unvented Hood
Vented Hood
Intercom
Jacuzzi Tub
Jacuzzi repl.Tub
Oven
Microwave
Standard Range
Self Clean Range
Sauna
Trash Compactor
Central Vacuum
Security System

(15) Fireplaces
Interior 1 Story
Interior 2 Story
2nd/Same Stack
Two Sided
Exterior 1 Story
Exterior 2 Story
Prefab 1 Story
Prefab 2 Story
Heat Circulator
Raised Hearth
Wood Stove
Direct-Vented Ga

Class: C
Effec. Age: 29
Floor Area: 3185 CntyMult
Total Base Cost: 185,715 X 1.250
Total Cost New : 232,143 E.C.F.
Total Depr Cost: 164,822 X 0.900
Estimated T.C.V: 148,340

(16) Porches/Decks

Area	Type
278	Treated Wood

(17) Garage
Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
2	Story Brick	Basement	106.78	0.00	0.00	940	100,373
1.5	Story Brick	Basement	85.35	0.00	0.00	294	25,093
1	Story Brick	Crawl Space	66.73	-8.03	0.00	414	24,302
1	Story Siding	Crawl Space	59.96	-8.03	0.00	60	3,116
1	Story Siding	Crawl Space	59.96	-8.03	0.00	390	20,253

Other Additions/Adjustments	Rate	Size	Cost
(13) Plumbing			
3 Fixture Bath	2400.00	1	2,400
(14) Water/Sewer			
Well, 100 Feet	2700.00	1	2,700
1000 Gal Septic	3085.00	1	3,085
(15) Built-Ins & Fireplaces			
Appliance Allowance	1915.00	1	1,915
Dishwasher	610.00	1	610
(16) Deck/Balcony			
Treated Wood ,Standard	6.72	278	1,868

Phy/Ab.Phy/Func/Econ/Comb.%Good= 71/100/100/100/71.0, Depr.Cost = 164,822
ECF (AGRICULTURAL) 0.900 => TCV of Bldg: 1 = 148,340

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-13-400-001-00

Printed on 04/27/2012

Building Type

X Single Family
Mobile Home
Town Home
Duplex
A-Frame

X Wood Frame

Building Style:
1 STORY

YearBuilt: 0
Remodeled:

Condition for Age:
Good

Room List

Basement
1st Floor
2nd Floor
Bedrooms

(1) Exterior

X Wood/Shingle
Aluminum/Vinyl
Brick

Insulation

(2) Windows

X Many Ave. Few
X Large Ave. Small

Wood Sash
Metal Sash
Vinyl Sash
Double Hung
Horiz. Slide
Casement
Double Glass
Patio Doors
Storms&Screens

(3) Roof

X Gable Hip
Flat
Gambrel Mansard
Shed

X Asphalt Shingle

Chimney: Brick

(3) Roof (cont.)

Eavestrough
Insulation
0 Front Overhang
0 Other Overhang

(4) Interior

Drywall Paneled
Plaster Wood T&G

Trim & Decoration
Ex X Ord Min

Size of Closets
Lg X Ord Small

Doors Solid X H.C.

(5) Floors

Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation

Basement: 572 S.F.
Crawl: 0 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement

Conc. Block
Poured Conc.
Stone
Treated Wood
Concrete Floor

(9) Basement Finish

Recreation SF
Living SF
Walkout Doors
No Floor SF

(10) Floor Support

Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling

X Gas Wood
Oil Coal
Elec. Steam

X Forced Air w/o Ducts
Forced Air w/ Ducts
Forced Hot Water
Electric Baseboard
Elec. Ceil. Radient
Radiant (in-floor)
Electric Wall Heat
Space Heater
Wall/Floor Furnace
Forced Heat & Cool
Heat Pump
No Heating/Cooling

Central Air
Wood Furnace

(12) Electric

Amps Service

No./Qual. of Fixtures
Ex. X Ord. Min

No. of Elec. Outlets
Many X Ave. Few

(13) Plumbing

1 Average Fixture(s)
3 Fixture Bath
2 Fixture Bath
Softener, Auto
Softener, Manual
Solar Water Heat
No Plumbing
Extra Toilet
Extra Sink
Separate Shower
Ceramic Tile Floor
Ceramic Tile Wains
Ceramic Tub Alcove
Vent Fan

(14) Water/Sewer

Public Water
Public Sewer
1 Water Well
1 1000 Gal Septic
2000 Gal Septic

Lump Sum Items:

(15) Built-ins

1 Appliance Allow.
Cook Top
1 Dishwasher
Garbage Disposal
Bath Heater
Vent Fan
Hot Tub
Unvented Hood
Vented Hood
Intercom
Jacuzzi Tub
Jacuzzi repl.Tub
Oven
Microwave
Standard Range
Self Clean Range
Sauna
Trash Compactor
Central Vacuum
Security System

(15) Fireplaces

Interior 1 Story
Interior 2 Story
2nd/Same Stack
Two Sided
Exterior 1 Story
Exterior 2 Story
Prefab 1 Story
Prefab 2 Story
Heat Circulator
Raised Hearth
Wood Stove
Direct-Vented Ga

Class: CD
Effec. Age: 29
Floor Area: 1001
Total Base Cost: 70,432
Total Cost New : 88,039
Total Depr Cost: 62,508
Estimated T.C.V: 56,257

CntyMult X 1.250
B.C.F. X 0.900

(16) Porches/Decks

Area	Type
140	WGEP (1 Story)
25	WCP (1 Story)
25	CCP (1 Story)

(17) Garage

Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
1.75 Story	Siding	Basement	96.99	0.00	0.00	572	55,478

Other Additions/Adjustments	Rate	Size	Cost
(14) Water/Sewer			
Well, 100 Feet	2550.00	1	2,550
1000 Gal Septic	2895.00	1	2,895
(15) Built-Ins & Fireplaces			
Appliance Allowance	1415.00	1	1,415
Dishwasher	535.00	1	535
(16) Porches			
WGEP (1 Story), Standard	35.80	140	5,012
WCP (1 Story), Standard	50.55	25	1,264
CCP (1 Story), Standard	51.30	25	1,283
Phy/Ab.Phy/Func/Econ/Comb.%Good= 71/100/100/100/71.0,		Depr.Cost =	62,508
ECF (AGRICULTURAL)	0.900 => TCV of Bldg: 2 =		56,257

Information herein deemed reliable but not guaranteed

Building Type	Barn, General Purpose	Barn, General Purpose	Barn, General Purpose	Loafing Shed	Utility Shed, Lean-To
Year Built					
Class/Construction	D,Pole	D,Pole	D,Pole	D,Pole	D,Frame
Quality/Exterior	Average	Average	Low Cost	Low Cost	Low Cost
Base Rate/SF	14.15	14.15	10.10	4.00	4.30
# of Walls, Perimeter	4 Wall , 280	4 Wall , 280	4 Wall , 360	4 Wall , 400	4 Wall , 0
Perimeter Mult.	X 0.931 = 13.17	X 0.961 = 13.60	X 0.946 = 9.55	X 0.902 = 3.61	X 1.000 = 4.30
Height					
Story Height Mult.	X 0.946 = 12.46	X 0.946 = 12.86	X 0.946 = 9.04	X 0.946 = 3.41	X 0.946 = 4.07
Heating System	No Heating/Cooling	No Heating/Cooling	No Heating/Cooling	No Heating/Cooling	No Heating/Cooling
Heat Adj./SF					
Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.25 = 15.58	X 1.25 = 16.08	X 1.25 = 11.30	X 1.25 = 4.27	X 1.25 = 5.08
Final Rate/SF	$15.58	$16.08	$11.30	$4.27	$5.08
Length/Width/Area	60 x 80 = 4800	100 x 40 = 4000	140 x 40 = 5600	140 x 60 = 8400	0 x 0 = 0
Cost New	$ 74,774	$ 64,319	$ 63,271	$ 35,838	$
Phy./Func./Econ. %Good	62/100/100 62.0	62/100/100 62.0	32/100/100 32.0	32/100/100 32.0	32/100/100 32.0
Depreciated Cost	$ 46,360	$ 39,878	$ 20,247	$ 11,468	$
+ Unit-In-Place Items	$	$	$	$	$
Description, Size X Rate X %Good = Cost Itemized ->\ Unit-In-Place ->\ Items ->					
E.C.F.	X 0.90	X 0.90	X 0.90	X 0.90	X 0.90
Est. True Cash Value	$ 41,724	$ 35,890	$ 18,222	$ 10,321	$
Comments:					

Total Estimated True Cash Value of Agricultural Improvements / This Card: 106157 / All Cards: 106157

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-13-400-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 03/10/2009

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
HORNING RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD PO BOX
JACKSON MI 49202

Legal Description
THAT PART OF E 1/2 OF E 1/2 OF SEC 13 LYING SOUTH OF LD OF LS & MS RR ALSO SW 1/4 OF SE 1/4. SEC 13 T4S R2E

Comments/Influences

Class: Agricultural | Zoning: RES

School: District 38040

P.R.E. 92% / /

Map #:

2009 Est TCV 969,523 TCV/TFA: 200.65

Building Permit(s)	Date	Number	Status

X Improved | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who When What

WER 06/15/1994 Data Ent

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Rate Table 101 - 200 ACRES	155.00 Acres				2750	100		426,250
Rate Table WOODS- 40+ ACRE	10.00 Acres				2400	100		24,000
Rate Table ROAD R/W	1.00 Acres				0	100		
	166.00 Total Acres				Total Est. Land Value =			450,250

Land Improvement Cost Estimates

Description	Rate	CountyMult.	Size	%Good	Cash Value
D/W/P: Asphalt Paving	1.53	1.00	1800	57	1,570
Total Estimated Land Improvements True Cash Value =					1,570

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2009	225,130	259,630	484,760			159,525C
2008	171,500	250,430	421,930			152,802C
2007	145,250	251,150	396,400			149,367C
2006	207,500	160,785	368,285			144,038C

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Information herein deemed reliable but not guaranteed

Building Type

X	Single Family
	Mobile Home
	Town Home
	Duplex
	A-Frame
X	Wood Frame

Building Style: 1 STORY

YearBuilt: 0 | Remodeled:

Condition for Age: Good

Room List

	Basement
	1st Floor
	2nd Floor
	Bedrooms

(1) Exterior

X	Wood/Shingle
	Aluminum/Vinyl
	Brick
	Insulation

(2) Windows

X	Many Ave. Few	X	Large Ave. Small

	Wood Sash
	Metal Sash
	Vinyl Sash
	Double Hung
	Horiz. Slide
	Casement
	Double Glass
	Patio Doors
	Storms&Screens

(3) Roof

X	Gable Hip Flat		Gambrel Mansard Shed

X Asphalt Shingle

Chimney: Brick

(3) Roof (cont.)

	Eavestrough
	Insulation
0	Front Overhang
0	Other Overhang

(4) Interior

	Drywall Paneled		Plaster Wood T&G

Trim & Decoration

	Ex	X	Ord		Min

Size of Closets

	Lg	X	Ord		Small

Doors			Solid	X	H.C.

(5) Floors

Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation

Basement: 1763 S.F.
Crawl: 470 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement

	Conc. Block
	Poured Conc.
	Stone
	Treated Wood
	Concrete Floor

(9) Basement Finish

	Recreation SF
	Living SF
	Walkout Doors
	No Floor SF

(10) Floor Support

Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling

X	Gas		Oil		Elec.		
	Wood		Coal		Steam		

	Forced Air w/o Ducts
X	Forced Air w/ Ducts
	Forced Hot Water
	Electric Baseboard
	Elec. Ceil. Radient
	Radiant (in-floor)
	Electric Wall Heat
	Space Heater
	Wall/Floor Furnace
	Forced Heat & Cool
	Heat Pump
	No Heating/Cooling

	Central Air
	Wood Furnace

(12) Electric

Amps Service

No./Qual. of Fixtures

	Ex.	X	Ord.		Min

No. of Elec. Outlets

	Many	X	Ave.		Few

(13) Plumbing

1	Average Fixture(s)
	3 Fixture Bath
	2 Fixture Bath
	Softener, Auto
	Softener, Manual
	Solar Water Heat
	No Plumbing
	Extra Toilet
	Extra Sink
	Separate Shower
	Ceramic Tile Floor
	Ceramic Tile Wains
	Ceramic Tub Alcove
	Vent Fan

(14) Water/Sewer

	Public Water
	Public Sewer
1	Water Well
1	1000 Gal Septic
	2000 Gal Septic

Lump Sum Items:

(15) Built-ins

	Appliance Allow.
	Cook Top
	Dishwasher
	Garbage Disposal
	Bath Heater
	Vent Fan
	Hot Tub
	Unvented Hood
	Vented Hood
	Intercom
	Jacuzzi Tub
	Jacuzzi repl.Tub
	Oven
	Microwave
	Standard Range
	Self Clean Range
	Sauna
	Trash Compactor
	Central Vacuum
	Security System

(15) Fireplaces

	Interior 1 Story
	Interior 2 Story
	2nd/Same Stack
	Two Sided
	Exterior 1 Story
	Exterior 2 Story
	Prefab 1 Story
	Prefab 2 Story
	Heat Circulator
	Raised Hearth
	Wood Stove
	Direct-Vented Ga

Class: C
Effec. Age: 30
Floor Area: 3831
Total Base Cost: 188,766
Total Cost New : 228,407
Total Depr Cost: 223,811
Estimated T.C.V: 331,241

CntyMult
X 1.210
E.C.F.
X 1.480

(16) Porches/Decks

Area	Type
280	WCP (1 Story)
75	CGEP (1 Story)

(17) Garage

Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
2	Story Brick	Basement	90.06	0.00	0.00	1433	129,056
1	Story Brick	Crawl Space	56.28	-6.72	0.00	470	23,293
1.5	Story Brick	Basement	71.99	0.00	0.00	330	23,757

Other Additions/Adjustments	Rate	Size	Cost
(14) Water/Sewer			
Well, 100 Feet	2400.00	1	2,400
1000 Gal Septic	2675.00	1	2,675
(16) Porches			
WCP (1 Story), Standard	15.84	280	4,435
CGEP (1 Story), Standard	42.00	75	3,150

Phy/Ab.Phy/Func/Econ/Comb.%Good= 70/100/100/100/70.0, Depr.Cost = 159,885
Separately Depreciated Items:
Square footage # 1 is depreciated at 100%Good... Base Cost Was = 129,056
County Multiplier = 1.21 => Cost New = 156,158
Phy/Ab.+hy/Func/Econ/Comb.%Good= 30/100/100/100/30.0, Depr.Cost = 46,847
Square footage # 2 is depreciated at 100%Good... Base Cost Was = 23,293
County Multiplier = 1.21 => Cost New = 28,185
Phy/Ab.+hy/Func/Econ/Comb.%Good= 30/100/100/100/30.0, Depr.Cost = 8,455
Square footage # 3 is depreciated at 100%Good... Base Cost Was = 23,757
County Multiplier = 1.21 => Cost New = 28,746
Phy/Ab.+hy/Func/Econ/Comb.%Good= 30/100/100/100/30.0, Depr.Cost = 8,624
ECP (50 AGRICULTURAL) 1.480 => TCV of Bldg: 1 = 331,241

Information herein deemed reliable but not guaranteed

Building Type
X Single Family
Mobile Home
Town Home
Duplex
A-Frame

X Wood Frame

Building Style:
1 STORY

YearBuilt 0 | Remodeled

Condition for Age:
Good

Room List
Basement
1st Floor
2nd Floor
Bedrooms

(1) Exterior
X Wood/Shingle
Aluminum/Vinyl
Brick

Insulation

(2) Windows
X Many Ave. Pew | X Large Ave. Small

Wood Sash
Metal Sash
Vinyl Sash
Double Hung
Horiz. Slide
Casement
Double Glass
Patio Doors
Storms&Screens

(3) Roof
X Gable | Hip | Flat | Gambrel | Mansard | Shed

X Asphalt Shingle

Chimney: Brick

(3) Roof (cont.)
Eavestrough
Insulation
0 Front Overhang
0 Other Overhang

(4) Interior
Drywall Paneled | Plaster Wood T&G

Trim & Decoration
Ex | X Ord | Min

Size of Closets
Lg | X Ord | Small

Doors | Solid | X H.C.

(5) Floors

Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation
Basement: 572 S.F.
Crawl: 0 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement
Conc. Block
Poured Conc.
Stone
Treated Wood
Concrete Floor

(9) Basement Finish
Recreation SF
Living SF
Walkout Doors
No Floor SF

(10) Floor Support

Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling
X Gas Wood | Oil Coal | Elec. Steam

X Forced Air w/o Ducts
Forced Air w/ Ducts
Forced Hot Water
Electric Baseboard
Elec. Ceil. Radient
Radiant (in-floor)
Electric Wall Heat
Space Heater
Wall/Floor Furnace
Forced Heat & Cool
Heat Pump
No Heating/Cooling

Central Air
Wood Furnace

(12) Electric
Amps Service

No./Qual. of Fixtures
Ex. | X Ord. | Min

No. of Elec. Outlets
Many | X Ave. | Few

(13) Plumbing
1 Average Fixture(s)
3 Fixture Bath
2 Fixture Bath
Softener, Auto
Softener, Manual
Solar Water Heat
No Plumbing
Extra Toilet
Extra Sink
Separate Shower
Ceramic Tile Floor
Ceramic Tile Wains
Ceramic Tub Alcove
Vent Fan

(14) Water/Sewer
Public Water
Public Sewer
1 Water Well
1 1000 Gal Septic
2000 Gal Septic

Lump Sum Items:

(15) Built-ins
Appliance Allow.
Cook Top
Dishwasher
Garbage Disposal
Bath Heater
Vent Fan
Hot Tub
Unvented Hood
Vented Hood
Intercom
Jacuzzi Tub
Jacuzzi repl.Tub
Oven
Microwave
Standard Range
Self Clean Range
Sauna
Trash Compactor
Central Vacuum
Security System

(15) Fireplaces
Interior 1 Story
Interior 2 Story
2nd/Same Stack
Two Sided
Exterior 1 Story
Exterior 2 Story
Prefab 1 Story
Prefab 2 Story
Heat Circulator
Raised Hearth
Wood Stove
Direct-Vented Ga

Class: CD
Effec. Age: 30
Floor Area: 1001
Total Base Cost: 59,716
Total Cost New : 72,256
Total Depr Cost: 50,579
Estimated T.C.V: 74,858

CntyMult X 1.210
E.C.F. X 1.480

(16) Porches/Decks

Area	Type
140	WGEP (1 Story)
25	WCP (1 Story)
25	CCP (1 Story)

(17) Garage
Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
1.75 Story	Siding	Basement	81.39	0.00	0.00	572	46,555

Other Additions/Adjustments	Rate	Size	Cost
(14) Water/Sewer			
Well, 200 Feet	4250.00	1	4,250
1000 Gal Septic	2495.00	1	2,495
(16) Porches			
WGEP (1 Story), Standard	30.39	140	4,255
WCP (1 Story), Standard	42.90	25	1,073
CCP (1 Story), Standard	43.55	25	1,089

Phy/Ab.Phy/Func/Econ/Comb.%Good= 70/100/100/100/70.0, Depr.Cost = 50,579
ECP (50 AGRICULTURAL) 1.480 => TCV of Bldg: 2 = 74,858

Information herein deemed reliable but not guaranteed

Building Type	Barn, General Purpose	Barn, General Purpose	Barn, General Purpose	Loafing Shed	Utility Shed, Lean-To
Year Built					
Class/Construction	D,Pole	D,Pole	D,Pole	D,Pole	D,Frame
Quality/Exterior	Average	Average	Low Cost	Low Cost	Low Cost
Base Rate/SF	12.01	12.01	8.62	3.35	5.43
# of Walls, Perimeter	4 Wall , 280	4 Wall , 280	4 Wall , 360	4 Wall , 400	4 Wall , 0
Perimeter Mult.	X 0.931 = 11.18	X 0.961 = 11.54	X 0.946 = 8.15	X 0.902 = 3.02	X 1.000 = 5.43
Height					
Story Height Mult.	X 0.946 = 10.58	X 0.946 = 10.92	X 0.946 = 7.71	X 0.946 = 2.86	X 0.946 = 5.14
Heating System	No Heating/Cooling	No Heating/Cooling	No Heating/Cooling	No Heating/Cooling	No Heating/Cooling
Heat Adj./SF					
Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.20 = 12.69	X 1.20 = 13.10	X 1.20 = 9.26	X 1.20 = 3.43	X 1.20 = 6.16
Final Rate/SF	$12.69	$13.10	$9.26	$3.43	$6.16
Length/Width/Area	60 x 80 = 4800	100 x 40 = 4000	140 x 40 = 5600	140 x 60 = 8400	0 x 0 = 0
Cost New	$ 60,927	$ 52,408	$ 51,839	$ 28,814	$
Phy./Func./Econ. %Good	60/100/100 60.0	60/100/100 60.0	31/100/100 31.0	31/100/100 31.0	31/100/100 31.0
Depreciated Cost	$ 36,556	$ 31,445	$ 16,070	$ 8,932	$
+ Unit-In-Place Items	$	$	$	$	$
Description, Size X Rate X %Good = Cost Itemized ->\ Unit-In-Place ->\ Items ->					
E.C.F.	X 1.20	X 1.20	X 1.20	X 1.20	X 1.20
Est. True Cash Value	$ 43,867	$ 37,734	$ 19,284	$ 10,719	$
Comments:					

Total Estimated True Cash Value of Agricultural Improvements / This Card: 111604 / All Cards: 111604

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-13-400-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 03/31/2010

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
HORNING RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD PO BOX
JACKSON MI 49202

Description
THAT PART OF E 1/2 OF E 1/2 OF SEC 13 LYING SOUTH OF LD OF LS & MS RR ALSO SW 1/4 OF SE 1/4. SEC 13 T4S R2E

Comments/Influences

Class: Agricultural | Zoning: RES

School: District 38040

P.R.B. 92% / /

Map #:

2010 Est TCV 944,827 TCV/TFA: 195.54

Building Permit(s)	Date	Number	Status

X Improved | Vacant

Public Improvements

	Dirt Road
	Gravel Road
	Paved Road
	Storm Sewer
	Sidewalk
	Water
	Sewer
	Electric
	Gas
	Curb
	Street Lights
	Standard Utilities
	Underground Utils.

Topography of Site

	Level
	Rolling
	Low
	High
	Landscaped
	Swamp
	Wooded
	Pond
	Waterfront
	Ravine
	Wetland
	Flood Plain

Who When What

WER 06/15/1994 Data Ent

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Rate Table 101 - 200 ACRES	155.00 Acres		2750	100				426,250
Rate Table WOODS- 40+ ACRE	10.00 Acres		2400	100				24,000
Rate Table ROAD R/W	1.00 Acres		0	100				
	166.00 Total Acres				Total Est. Land Value =			450,250

Land Improvement Cost Estimates

Description	Rate	CountyMult.	Size	%Good	Cash Value
D/W/P: Asphalt Paving	1.53	1.00	1800	57	1,570
Total Estimated Land Improvements True Cash Value =					1,570

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2010	225,130	247,280	472,410			159,046C
2009	225,130	259,630	484,760			159,525C
2008	171,500	250,430	421,930			152,802C
2007	145,250	251,150	396,400			149,367C

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Information herein deemed reliable but not guaranteed

Building Type
- X Single Family
- Mobile Home
- Town Home
- Duplex
- A-Frame

- X Wood Frame

Building Style: 1 STORY

YearBuilt: 0 | Remodeled:

Condition for Age: Good

Room List
- Basement
- 1st Floor
- 2nd Floor
- Bedrooms

(1) Exterior
- X Wood/Shingle
- Aluminum/Vinyl
- Brick

Insulation

(2) Windows

X	Many Ave.	X	Large Ave.
	Few		Small

- Wood Sash
- Metal Sash
- Vinyl Sash
- Double Hung
- Horiz. Slide
- Casement
- Double Glass
- Patio Doors
- Storms&Screens

(3) Roof

X	Gable		Gambrel
	Hip		Mansard
	Flat		Shed

- X Asphalt Shingle

Chimney: Brick

(3) Roof (cont.)
- Eavestrough
- Insulation
- 0 Front Overhang
- 0 Other Overhang

(4) Interior

	Drywall		Plaster
	Paneled		Wood T&G

Trim & Decoration

	Ex	X	Ord		Min

Size of Closets

	Lg	X	Ord		Small

Doors		Solid	X	H.C.	

(5) Floors

Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation

Basement: 1763 S.F.
Crawl: 470 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement
- Conc. Block
- Poured Conc.
- Stone
- Treated Wood
- Concrete Floor

(9) Basement Finish
- Recreation SF
- Living SF
- Walkout Doors
- No Floor SF

(10) Floor Support

Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling

X	Gas		Oil		Elec.
	Wood		Coal		Steam

- X Forced Air w/o Ducts
- Forced Air w/ Ducts
- Forced Hot Water
- Electric Baseboard
- Elec. Ceil. Radient
- Radiant (in-floor)
- Electric Wall Heat
- Space Heater
- Wall/Floor Furnace
- Forced Heat & Cool
- Heat Pump
- No Heating/Cooling

- Central Air
- Wood Furnace

(12) Electric

Amps Service

No./Qual. of Fixtures

	Ex.	X	Ord.		Min

No. of Elec. Outlets

	Many	X	Ave.		Few

(13) Plumbing

- 1 Average Fixture(s)
- 3 Fixture Bath
- 2 Fixture Bath
- Softener, Auto
- Softener, Manual
- Solar Water Heat
- No Plumbing
- Extra Toilet
- Extra Sink
- Separate Shower
- Ceramic Tile Floor
- Ceramic Tile Wains
- Ceramic Tub Alcove
- Vent Fan

(14) Water/Sewer
- Public Water
- Public Sewer
- 1 Water Well
- 1 1000 Gal Septic
- 2000 Gal Septic

Lump Sum Items:

(15) Built-ins
- Appliance Allow.
- Cook Top
- Dishwasher
- Garbage Disposal
- Bath Heater
- Vent Fan
- Hot Tub
- Unvented Hood
- Vented Hood
- Intercom
- Jacuzzi Tub
- Jacuzzi repl.Tub
- Oven
- Microwave
- Standard Range
- Self Clean Range
- Sauna
- Trash Compactor
- Central Vacuum
- Security System

(15) Fireplaces
- Interior 1 Story
- Interior 2 Story
- 2nd/Same Stack
- Two Sided
- Exterior 1 Story
- Exterior 2 Story
- Prefab 1 Story
- Prefab 2 Story
- Heat Circulator
- Raised Hearth
- Wood Stove
- Direct-Vented Ga

Class: C
Effec. Age: 30
Floor Area: 3831
Total Base Cost: 188,766
Total Cost New : 228,407
Total Depr Cost: 223,811
Estimated T.C.V: 311,098

CntyMult X 1.210
E.C.F. X 1.390

(16) Porches/Decks

Area	Type
280	WCP (1 Story)
75	CGEP (1 Story)

(17) Garage

Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
2	Story Brick	Basement	90.06	0.00	0.00	1433	129,056
1	Story Brick	Crawl Space	56.28	-6.72	0.00	470	23,293
1.5	Story Brick	Basement	71.99	0.00	0.00	330	23,757

Other Additions/Adjustments	Rate	Size	Cost
(14) Water/Sewer			
Well, 100 Feet	2400.00	1	2,400
1000 Gal Septic	2675.00	1	2,675
(16) Porches			
WCP (1 Story), Standard	15.84	280	4,435
CGEP (1 Story), Standard	42.00	75	3,150

Phy/Ab.Phy/Func/Econ/Comb.%Good= 70/100/100/100/70.0, Depr.Cost = 159,885
Separately Depreciated Items:
Square footage # 1 is depreciated at 100%Good... Base Cost Was = 129,056
County Multiplier = 1.21 => Cost New = 156,158
Phy/Ab.+hy/Func/Econ/Comb.%Good= 30/100/100/100/30.0, Depr.Cost = 46,847
Square footage # 2 is depreciated at 100%Good... Base Cost Was = 23,293
County Multiplier = 1.21 => Cost New = 28,185
Phy/Ab.+hy/Func/Econ/Comb.%Good= 30/100/100/100/30.0, Depr.Cost = 8,455
Square footage # 3 is depreciated at 100%Good... Base Cost Was = 23,757
County Multiplier = 1.21 => Cost New = 28,746
Phy/Ab.+hy/Func/Econ/Comb.%Good= 30/100/100/100/30.0, Depr.Cost = 8,624
ECF (AGRICULTURAL) 1.390 => TCV of Bldg: 1 = 311,098

Information herein deemed reliable but not guaranteed

Building Type

X	Single Family
	Mobile Home
	Town Home
	Duplex
	A-Frame
X	Wood Frame

Building Style: 1 STORY

YearBuilt	Remodeled
0	

Condition for Age: Good

Room List

	Basement
	1st Floor
	2nd Floor
	Bedrooms

(1) Exterior

X	Wood/Shingle
	Aluminum/Vinyl
	Brick
	Insulation

(2) Windows

X	Many Ave. Few		Large Ave. Small

Wood Sash
Metal Sash
Vinyl Sash
Double Hung
Horiz. Slide
Casement
Double Glass
Patio Doors
Storms&Screens

(3) Roof

X	Gable		Gambrel
	Hip		Mansard
	Flat		Shed

X	Asphalt Shingle

Chimney: Brick

(3) Roof (cont.)

	Eavestrough
	Insulation
0	Front Overhang
0	Other Overhang

(4) Interior

	Drywall		Plaster
	Paneled		Wood T&G

Trim & Decoration

	Ex	X	Ord		Min

Size of Closets

	Lg	X	Ord		Small

Doors		Solid	X	H.C.	

(5) Floors

Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation

Basement: 572 S.F.
Crawl: 0 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement

	Conc. Block
	Poured Conc.
	Stone
	Treated Wood
	Concrete Floor

(9) Basement Finish

	Recreation SF
	Living SF
	Walkout Doors
	No Floor SF

(10) Floor Support

Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling

X	Gas		Oil		Elec.		
	Wood		Coal		Steam		

	Forced Air w/o Ducts
X	Forced Air w/ Ducts
	Forced Hot Water
	Electric Baseboard
	Elec. Ceil. Radient
	Radiant (in-floor)
	Electric Wall Heat
	Space Heater
	Wall/Floor Furnace
	Forced Heat & Cool
	Heat Pump
	No Heating/Cooling

	Central Air
	Wood Furnace

(12) Electric

	Amps Service

No./Qual. of Fixtures

	Ex.	X	Ord.		Min

No. of Elec. Outlets

	Many	X	Ave.		Few

(13) Plumbing

	Average Fixture(s)
1	3 Fixture Bath
	2 Fixture Bath
	Softener, Auto
	Softener, Manual
	Solar Water Heat
	No Plumbing
	Extra Toilet
	Extra Sink
	Separate Shower
	Ceramic Tile Floor
	Ceramic Tile Wains
	Ceramic Tub Alcove
	Vent Fan

(14) Water/Sewer

	Public Water
	Public Sewer
1	Water Well
1	1000 Gal Septic
	2000 Gal Septic

Lump Sum Items:

(15) Built-ins

	Appliance Allow.
	Cook Top
	Dishwasher
	Garbage Disposal
	Bath Heater
	Vent Fan
	Hot Tub
	Unvented Hood
	Vented Hood
	Intercom
	Jacuzzi Tub
	Jacuzzi repl.Tub
	Oven
	Microwave
	Standard Range
	Self Clean Range
	Sauna
	Trash Compactor
	Central Vacuum
	Security System

(15) Fireplaces

	Interior 1 Story
	Interior 2 Story
	2nd/Same Stack
	Two Sided
	Exterior 1 Story
	Exterior 2 Story
	Prefab 1 Story
	Prefab 2 Story
	Heat Circulator
	Raised Hearth
	Wood Stove
	Direct-Vented Ga

Class: CD
Effec. Age: 30
Floor Area: 1001
Total Base Cost: 59,716
Total Cost New : 72,256
Total Depr Cost: 50,579
Estimated T.C.V: 70,305

CntyMult
X 1.210
E.C.F.
X 1.390

(16) Porches/Decks

Area	Type
140	WGEP (1 Story)
25	WCP (1 Story)
25	CCP (1 Story)

(17) Garage

Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
1.75 Story	Siding	Basement	81.39	0.00	0.00	572	46,555

Other Additions/Adjustments	Rate	Size	Cost
(14) Water/Sewer			
Well, 200 Feet	4250.00	1	4,250
1000 Gal Septic	2495.00	1	2,495
(16) Porches			
WGEP (1 Story), Standard	30.39	140	4,255
WCP (1 Story), Standard	42.90	25	1,073
CCP (1 Story), Standard	43.55	25	1,089

Phy/Ab.Phy/Func/Econ/Comb.%Good= 70/100/100/100/70.0, Depr.Cost = 50,579
ECF (AGRICULTURAL) 1.390 => TCV of Bldg: 2 = 70,305

Information herein deemed reliable but not guaranteed

Building Type	Barn, General Purpose	Barn, General Purpose	Barn, General Purpose	Loafing Shed	Utility Shed, Lean-To
Year Built					
Class/Construction	D,Pole	D,Pole	D,Pole	D,Pole	D,Frame
Quality/Exterior	Average	Average	Low Cost	Low Cost	Low Cost
Base Rate/SF	12.01	12.01	8.62	3.35	5.43
# of Walls, Perimeter	4 Wall , 280	4 Wall , 280	4 Wall , 360	4 Wall , 400	4 Wall , 0
Perimeter Mult.	X 0.931 = 11.18	X 0.961 = 11.54	X 0.946 = 8.15	X 0.902 = 3.02	X 1.000 = 5.43
Height					
Story Height Mult.	X 0.946 = 10.58	X 0.946 = 10.92	X 0.946 = 7.71	X 0.946 = 2.86	X 0.946 = 5.14
Heating System	No Heating/Cooling	No Heating/Cooling	No Heating/Cooling	No Heating/Cooling	No Heating/Cooling
Heat Adj./SF					
Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.20 = 12.69	X 1.20 = 13.10	X 1.20 = 9.26	X 1.20 = 3.43	X 1.20 = 6.16
Final Rate/SF	$12.69	$13.10	$9.26	$3.43	$6.16
Length/Width/Area	60 x 80 = 4800	100 x 40 = 4000	140 x 40 = 5600	140 x 60 = 8400	0 x 0 = 0
Cost New	$ 60,927	$ 52,408	$ 51,839	$ 28,814	$
Phy./Func./Econ. %Good	60/100/100 60.0	60/100/100 60.0	31/100/100 31.0	31/100/100 31.0	31/100/100 31.0
Depreciated Cost	$ 36,556	$ 31,445	$ 16,070	$ 8,932	$
+ Unit-In-Place Items	$	$	$	$	$
Description, Size X Rate X %Good = Cost Itemized ->\ Unit-In-Place ->\ Items ->					
E.C.F.	X 1.20	X 1.20	X 1.20	X 1.20	X 1.20
Est. True Cash Value	$ 43,867	$ 37,734	$ 19,284	$ 10,719	$
Comments:					

Total Estimated True Cash Value of Agricultural Improvements / This Card: 111604 / All Cards: 111604

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-13-400-001-00 Jurisdiction: NORVELL County: JACKSON

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
HORNING RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD PO BOX
JACKSON MI 49202

Legal Description
THAT PART OF E 1/2 OF E 1/2 OF SEC 13 LYING SOUTH OF LD OF LS & MS RR ALSO SW 1/4 OF SE 1/4. SEC 13 T4S R2E

Comments/Influences

Class: Agricultural | Zoning: RES

School: District 38040

P.R.E. 92% / /

Map #:

2008 Est TCV 843,856 TCV/TFA: 174.64

Building Permit(s)	Date	Number	Status

X Improved | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who	When	What
WER	06/15/1994	Data Ent

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

* Factors *

Description	Frontage	Depth	Front	Depth	Rate	%Adj.	Reason	Value
Rate Table 101 - 200 ACRES	155.00 Acres		2100		100			325,500
Rate Table WOODS	10.00 Acres		1750		100			17,500
Rate Table ROAD R/W	1.00 Acres		0		100			
	166.00 Total Acres		Total Est. Land Value =					343,000

Land Improvement Cost Estimates

Description	Rate	CountyMult.	Size	%Good	Cash Value
D/W/P: Asphalt Paving	1.53	1.00	1800	57	1,570
Total Estimated Land Improvements True Cash Value =					1,570

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2008	171,500	250,430	421,930			152,802C
2007	145,250	251,150	396,400			149,367C
2006	207,500	160,785	368,285			144,038C
2005	141,100	213,054	354,154			139,437C

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Information herein deemed reliable but not guaranteed

Building Type

X	Single Family
	Mobile Home
	Town Home
	Duplex
	A-Frame

X	Wood Frame

Building Style: 1 STORY

YearBuilt	Remodeled
0	

Condition for Age: Good

Room List

	Basement
	1st Floor
	2nd Floor
	Bedrooms

(1) Exterior

X	Wood/Shingle
	Aluminum/Vinyl
	Brick
	Insulation

(2) Windows

X	Many Ave. Few	X	Large Ave. Small

	Wood Sash
	Metal Sash
	Vinyl Sash
	Double Hung
	Horiz. Slide
	Casement
	Double Glass
	Patio Doors
	Storms&Screens

(3) Roof

X	Gable		Gambrel
	Hip		Mansard
	Flat		Shed

X	Asphalt Shingle

Chimney: Brick

(3) Roof (cont.)

	Eavestrough
	Insulation
0	Front Overhang
0	Other Overhang

(4) Interior

	Drywall		Plaster
	Paneled		Wood T&G

Trim & Decoration

	Ex	X	Ord		Min

Size of Closets

	Lg	X	Ord		Small

Doors		Solid	X	H.C.	

(5) Floors

Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation

Basement: 1763 S.F.
Crawl: 470 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement

	Conc. Block
	Poured Conc.
	Stone
	Treated Wood
	Concrete Floor

(9) Basement Finish

	Recreation SF
	Living SF
	Walkout Doors
	No Floor SF

(10) Floor Support

Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling

X	Gas		Oil		Elec.
	Wood		Coal		Steam

X	Forced Air w/o Ducts
	Forced Air w/ Ducts
	Forced Hot Water
	Electric Baseboard
	Elec. Ceil. Radient
	Radiant (in-floor)
	Electric Wall Heat
	Space Heater
	Wall/Floor Furnace
	Forced Heat & Cool
	Heat Pump
	No Heating/Cooling

	Central Air
	Wood Furnace

(12) Electric

Amps Service

No./Qual. of Fixtures

	Ex.	X	Ord.		Min

No. of Elec. Outlets

	Many	X	Ave.		Few

(13) Plumbing

1	Average Fixture(s)
	3 Fixture Bath
	2 Fixture Bath
	Softener, Auto
	Softener, Manual
	Solar Water Heat
	No Plumbing
	Extra Toilet
	Extra Sink
	Separate Shower
	Ceramic Tile Floor
	Ceramic Tile Wains
	Ceramic Tub Alcove
	Vent Fan

(14) Water/Sewer

	Public Water
	Public Sewer
1	Water Well
1	1000 Gal Septic
	2000 Gal Septic

Lump Sum Items:

(15) Built-ins

	Appliance Allow.
	Cook Top
	Dishwasher
	Garbage Disposal
	Bath Heater
	Vent Fan
	Hot Tub
	Unvented Hood
	Vented Hood
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	Interior 2 Story
	2nd/Same Stack
	Two Sided
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	Exterior 2 Story
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	Prefab 2 Story
	Heat Circulator
	Raised Hearth
	Wood Stove
	Direct-Vented Ga

Class: C
Effec. Age: 30
Floor Area: 3831
Total Base Cost: 188,766
Total Cost New : 228,407
Total Depr Cost: 223,811
Estimated T.C.V: 322,288

CntyMult
X 1.210
E.C.F.
X 1.440

(16) Porches/Decks

Area	Type
280	WCP (1 Story)
75	CGEP (1 Story)

(17) Garage

Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
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1.5	Story Brick	Basement	71.99	0.00	0.00	330	23,757

Other Additions/Adjustments	Rate	Size	Cost
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1000 Gal Septic	2675.00	1	2,675
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Square footage # 2 is depreciated at 100%Good... Base Cost Was = 23,293
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Square footage # 3 is depreciated at 100%Good... Base Cost Was = 23,757
County Multiplier = 1.21 => Cost New = 28,746
Phy/Ab.+hy/Func/Econ/Comb.%Good= 30/100/100/100/30.0, Depr.Cost = 8,624
ECF (50 AGRICULTURAL) 1.440 => TCV of Bldg: 1 = 322,288

Information herein deemed reliable but not guaranteed

Building Type

X	Single Family
	Mobile Home
	Town Home
	Duplex
	A-Frame
X	Wood Frame

Building Style: 1 STORY

YearBuilt	Remodeled
0	

Condition for Age: Good

Room List

	Basement
	1st Floor
	2nd Floor
	Bedrooms

(1) Exterior

X	Wood/Shingle
	Aluminum/Vinyl
	Brick
	Insulation

(2) Windows

X	Many Ave. Few	X	Large Ave. Small

Wood Sash
Metal Sash
Vinyl Sash
Double Hung
Horiz. Slide
Casement
Double Glass
Patio Doors
Storms&Screens

(3) Roof

X	Gable		Gambrel
	Hip		Mansard
	Flat		Shed

X	Asphalt Shingle

Chimney: Brick

(3) Roof (cont.)

	Eavestrough
	Insulation
0	Front Overhang
0	Other Overhang

(4) Interior

	Drywall		Plaster
	Paneled		Wood T&G

Trim & Decoration

	Ex	X	Ord		Min

Size of Closets

	Lg	X	Ord		Small

Doors		Solid	X	H.C.	

(5) Floors

Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation

Basement: 572 S.F.
Crawl: 0 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement

	Conc. Block
	Poured Conc.
	Stone
	Treated Wood
	Concrete Floor

(9) Basement Finish

	Recreation SF
	Living SF
	Walkout Doors
	No Floor SF

(10) Floor Support

Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling

X	Gas		Oil		Elec.
	Wood		Coal		Steam

	Forced Air w/o Ducts
X	Forced Air w/ Ducts
	Forced Hot Water
	Electric Baseboard
	Elec. Ceil. Radient
	Radiant (in-floor)
	Electric Wall Heat
	Space Heater
	Wall/Floor Furnace
	Forced Heat & Cool
	Heat Pump
	No Heating/Cooling

	Central Air
	Wood Furnace

(12) Electric

	Amps Service

No./Qual. of Fixtures

	Ex.	X	Ord.		Min

No. of Elec. Outlets

	Many	X	Ave.		Few

(13) Plumbing

	Average Fixture(s)
1	3 Fixture Bath
	2 Fixture Bath
	Softener, Auto
	Softener, Manual
	Solar Water Heat
	No Plumbing
	Extra Toilet
	Extra Sink
	Separate Shower
	Ceramic Tile Floor
	Ceramic Tile Wains
	Ceramic Tub Alcove
	Vent Fan

(14) Water/Sewer

	Public Water
	Public Sewer
1	Water Well
1	1000 Gal Septic
	2000 Gal Septic

Lump Sum Items:

(15) Built-ins

	Appliance Allow.
	Cook Top
	Dishwasher
	Garbage Disposal
	Bath Heater
	Vent Fan
	Hot Tub
	Unvented Hood
	Vented Hood
	Intercom
	Jacuzzi Tub
	Jacuzzi repl.Tub
	Oven
	Microwave
	Standard Range
	Self Clean Range
	Sauna
	Trash Compactor
	Central Vacuum
	Security System

(15) Fireplaces

	Interior 1 Story
	Interior 2 Story
	2nd/Same Stack
	Two Sided
	Exterior 1 Story
	Exterior 2 Story
	Prefab 1 Story
	Prefab 2 Story
	Heat Circulator
	Raised Hearth
	Wood Stove
	Direct-Vented Ga

Class: CD
Effec. Age: 30
Floor Area: 1001
Total Base Cost: 59,716
Total Cost New : 72,256
Total Depr Cost: 50,579
Estimated T.C.V: 72,834

CntyMult X 1.210
E.C.F. X 1.440

(16) Porches/Decks

Area	Type
140	WGEP (1 Story)
25	WCP (1 Story)
25	CCP (1 Story)

(17) Garage

Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
1.75 Story	Siding	Basement	81.39	0.00	0.00	572	46,555

Other Additions/Adjustments	Rate	Size	Cost
(14) Water/Sewer			
Well, 200 Feet	4250.00	1	4,250
1000 Gal Septic	2495.00	1	2,495
(16) Porches			
WGEP (1 Story), Standard	30.39	140	4,255
WCP (1 Story), Standard	42.90	25	1,073
CCP (1 Story), Standard	43.55	25	1,089

Phy/Ab.Phy/Func/Econ/Comb.%Good= 70/100/100/100/70.0, Depr.Cost = 50,579
ECF (50 AGRICULTURAL) 1.440 => TCV of Bldg: 2 = 72,834

Information herein deemed reliable but not guaranteed

Building Type	Barn, General Purpose	Barn, General Purpose	Barn, General Purpose	Loafing Shed	Utility Shed, Lean-To
Year Built					
Class/Construction	D,Pole	D,Pole	D,Pole	D,Pole	D,Frame
Quality/Exterior	Average	Average	Low Cost	Low Cost	Low Cost
Base Rate/SF	12.01	12.01	8.62	3.35	5.43
# of Walls, Perimeter	4 Wall , 280	4 Wall , 280	4 Wall , 360	4 Wall , 400	4 Wall , 0
Perimeter Mult.	X 0.931 = 11.18	X 0.961 = 11.54	X 0.946 = 8.15	X 0.902 = 3.02	X 1.000 = 5.43
Height					
Story Height Mult.	X 0.946 = 10.58	X 0.946 = 10.92	X 0.946 = 7.71	X 0.946 = 2.86	X 0.946 = 5.14
Heating System	No Heating/Cooling	No Heating/Cooling	No Heating/Cooling	No Heating/Cooling	No Heating/Cooling
Heat Adj./SF					
Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.20 = 12.69	X 1.20 = 13.10	X 1.20 = 9.26	X 1.20 = 3.43	X 1.20 = 6.16
Final Rate/SF	$12.69	$13.10	$9.26	$3.43	$6.16
Length/Width/Area	60 x 80 = 4800	100 x 40 = 4000	140 x 40 = 5600	140 x 60 = 8400	0 x 0 = 0
Cost New	$ 60,927	$ 52,408	$ 51,839	$ 28,814	$
Phy./Func./Econ. %Good	60/100/100 60.0	60/100/100 60.0	31/100/100 31.0	31/100/100 31.0	31/100/100 31.0
Depreciated Cost	$ 36,556	$ 31,445	$ 16,070	$ 8,932	$
+ Unit-In-Place Items	$	$	$	$	$
Description, Size X Rate X %Good = Cost Itemized ->\ Unit-In-Place ->\ Items ->					
E.C.F.	X 1.12	X 1.12	X 1.12	X 1.12	X 1.12
Est. True Cash Value	$ 40,943	$ 35,218	$ 17,999	$ 10,004	$
Comments:					

Total Estimated True Cash Value of Agricultural Improvements / This Card: 104164 / All Cards: 104164

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-13-400-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 05/21/2007

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
HORNING RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD PO BOX
JACKSON MI 49202

Legal Description
THAT PART OF E 1/2 OF E 1/2 OF SEC 13 LYING SOUTH OF LD OF LS & MS RR ALSO SW 1/4 OF SE 1/4, SEC 13 T4S R2E

Comments/Influences

Class: Agricultural | Zoning: RES

School: District 38040

P.R.E. 92% / /

Map #:

2007 Est TCV 792,800 TCV/TFA: 164.07

Building Permit(s)	Date	Number	Amount

X Improved | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who When What

WER 06/15/1994 Data Ent

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Acreage Table 'A'		166.000 Acres		1750	100			290,500
Rate Table 0		160 SqFt		0.00	100			
Rate Table		6 SqFt		0.00	100			
		166.00 Total Acres			Total Est. Land Value =			290,500

Land Improvement Cost Estimates

Description	Rate	CountyMult.	Size	%Good	Cash Value
D/W/P: Asphalt Paving	1.53	1.00	1800	57	1,570
Total Estimated Land Improvements True Cash Value =					1,570

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2007	145,250	251,150	396,400			149,367C
2006	207,500	160,785	368,285			144,038C
2005	141,100	213,054	354,154			139,437C
2004	149,400	191,550	340,950			136,303C

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Information herein deemed reliable but not guaranteed

Building Type

X	Single Family
	Mobile Home
	Town Home
	Duplex
	A-Frame

X	Wood Frame

Building Style: 1 STORY

YearBuilt	Remodeled
0	

Condition for Age: Good

Room List

	Basement
	1st Floor
	2nd Floor
	Bedrooms

(1) Exterior

X	Wood/Shingle
	Aluminum/Vinyl
	Brick
	Insulation

(2) Windows

X	Many Ave. Few	X	Large Ave. Small

	Wood Sash
	Metal Sash
	Vinyl Sash
	Double Hung
	Horiz. Slide
	Casement
	Double Glass
	Patio Doors
	Storms&Screens

(3) Roof

X	Gable Hip Flat		Gambrel Mansard Shed

X	Asphalt Shingle

Chimney: Brick

(3) Roof (cont.)

	Eavestrough
	Insulation
0	Front Overhang
0	Other Overhang

(4) Interior

	Drywall Paneled		Plaster Wood T&G

Trim & Decoration

	Ex	X	Ord		Min

Size of Closets

	Lg	X	Ord		Small

Doors		Solid	X	H.C.	

(5) Floors

Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation

Basement: 1763 S.F.
Crawl: 470 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement

	Conc. Block
	Poured Conc.
	Stone
	Treated Wood
	Concrete Floor

(9) Basement Finish

	Recreation SF
	Living SF
	Walkout Doors
	No Floor SF

(10) Floor Support

Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling

X	Gas		Oil		Elec.		
	Wood		Coal		Steam		

	Forced Air w/o Ducts
X	Forced Air w/ Ducts
	Forced Hot Water
	Electric Baseboard
	Elec. Ceil. Radient
	Radiant (in-floor)
	Electric Wall Heat
	Space Heater
	Wall/Floor Furnace
	Forced Heat & Cool
	Heat Pump
	No Heating/Cooling

	Central Air
	Wood Furnace

(12) Electric

	Amps Service

No./Qual. of Fixtures

	Ex.	X	Ord.		Min

No. of Elec. Outlets

	Many	X	Ave.		Few

(13) Plumbing

	Average Fixture(s)
1	3 Fixture Bath
	2 Fixture Bath
	Softener, Auto
	Softener, Manual
	Solar Water Heat
	No Plumbing
	Extra Toilet
	Extra Sink
	Separate Shower
	Ceramic Tile Floor
	Ceramic Tile Wains
	Ceramic Tub Alcove
	Vent Fan

(14) Water/Sewer

	Public Water
	Public Sewer
1	Water Well
1	1000 Gal Septic
	2000 Gal Septic

Lump Sum Items:

(15) Built-ins

	Appliance Allow.
	Cook Top
	Dishwasher
	Garbage Disposal
	Bath Heater
	Vent Fan
	Hot Tub
	Unvented Hood
	Vented Hood
	Intercom
	Jacuzzi Tub
	Jacuzzi repl.Tub
	Oven
	Microwave
	Standard Range
	Self Clean Range
	Sauna
	Trash Compactor
	Central Vacuum
	Security System

(15) Fireplaces

	Interior 1 Story
	Interior 2 Story
	2nd/Same Stack
	Two Sided
	Exterior 1 Story
	Exterior 2 Story
	Prefab 1 Story
	Prefab 2 Story
	Heat Circulator
	Raised Hearth
	Wood Stove
	Direct-Vented Ga

Class: C
Effec. Age: 30
Floor Area: 3831
Total Base Cost: 188,766
Total Cost New : 228,407
Total Depr Cost: 223,811
Estimated T.C.V: 322,289

CntyMult
X 1.210
E.C.F.
X 1.440

(16) Porches/Decks

Area	Type
280	WCP (1 Story)
75	CGEP (1 Story)

(17) Garage

Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
2	Story Brick	Basement	90.06	0.00	0.00	1433	129,056
1	Story Brick	Crawl Space	56.28	-6.72	0.00	470	23,293
1.5	Story Brick	Basement	71.99	0.00	0.00	330	23,757

Other Additions/Adjustments	Rate	Size	Cost
(14) Water/Sewer			
Well, 100 Feet	2400.00	1	2,400
1000 Gal Septic	2675.00	1	2,675
(16) Porches			
WCP (1 Story), Standard	15.84	280	4,435
CGEP (1 Story), Standard	42.00	75	3,150

Phy/Ab.Phy/Func/Econ/Comb.%Good= 70/100/100/100/70.0, Depr.Cost = 159,885
Separately Depreciated Items:
Square footage # 1 is depreciated at 100%Good... Base Cost Was = 129,056
County Multiplier = 1.21 => Cost New = 156,158
Phy/Ab.+hy/Func/Econ/Comb.%Good= 30/100/100/100/30.0, Depr.Cost = 46,847
Square footage # 2 is depreciated at 100%Good... Base Cost Was = 23,293
County Multiplier = 1.21 => Cost New = 28,185
Phy/Ab.+hy/Func/Econ/Comb.%Good= 30/100/100/100/30.0, Depr.Cost = 8,455
Square footage # 3 is depreciated at 100%Good... Base Cost Was = 23,757
County Multiplier = 1.21 => Cost New = 28,746
Phy/Ab.+hy/Func/Econ/Comb.%Good= 30/100/100/100/30.0, Depr.Cost = 8,624
ECF (50 AGRICULTURAL) 1.440 => TCV of Bldg: 1 = 322,288

Information herein deemed reliable but not guaranteed

Building Type
- X Single Family
- Mobile Home
- Town Home
- Duplex
- A-Frame

X Wood Frame

Building Style: 1 STORY

YearBuilt: 0 | Remodeled:

Condition for Age: Good

Room List
- Basement
- 1st Floor
- 2nd Floor
- Bedrooms

(1) Exterior
- X Wood/Shingle
- Aluminum/Vinyl
- Brick
- Insulation

(2) Windows
- X Many Ave.
- Few
- X Large Ave.
- Small
- Wood Sash
- Metal Sash
- Vinyl Sash
- Double Hung
- Horiz. Slide
- Casement
- Double Glass
- Patio Doors
- Storms&Screens

(3) Roof
- X Gable
- Hip
- Flat
- Gambrel
- Mansard
- Shed

X Asphalt Shingle

Chimney: Brick

(3) Roof (cont.)
- Eavestrough
- Insulation
- 0 Front Overhang
- 0 Other Overhang

(4) Interior
- Drywall
- Paneled
- Plaster
- Wood T&G

Trim & Decoration: Ex | X Ord | Min

Size of Closets: Lg | X Ord | Small

Doors: Solid | X H.C.

(5) Floors

Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation

Basement: 572 S.F.
Crawl: 0 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement
- Conc. Block
- Poured Conc.
- Stone
- Treated Wood
- Concrete Floor

(9) Basement Finish
- Recreation SF
- Living SF
- Walkout Doors
- No Floor SF

(10) Floor Support

Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling
- X Gas
- Wood
- Oil
- Coal
- Elec.
- Steam

- X Forced Air w/o Ducts
- Forced Air w/ Ducts
- Forced Hot Water
- Electric Baseboard
- Elec. Ceil. Radient
- Radiant (in-floor)
- Electric Wall Heat
- Space Heater
- Wall/Floor Furnace
- Forced Heat & Cool
- Heat Pump
- No Heating/Cooling

- Central Air
- Wood Furnace

(12) Electric

Amps Service

No./Qual. of Fixtures: Ex. | X Ord. | Min

No. of Elec. Outlets: Many | X Ave. | Few

(13) Plumbing

1	Average Fixture(s)
	3 Fixture Bath
	2 Fixture Bath
	Softener, Auto
	Softener, Manual
	Solar Water Heat
	No Plumbing
	Extra Toilet
	Extra Sink
	Separate Shower
	Ceramic Tile Floor
	Ceramic Tile Wains
	Ceramic Tub Alcove
	Vent Fan

(14) Water/Sewer

	Public Water
	Public Sewer
1	Water Well
1	1000 Gal Septic
	2000 Gal Septic

Lump Sum Items:

(15) Built-ins
- Appliance Allow.
- Cook Top
- Dishwasher
- Garbage Disposal
- Bath Heater
- Vent Fan
- Hot Tub
- Unvented Hood
- Vented Hood
- Intercom
- Jacuzzi Tub
- Jacuzzi repl.Tub
- Oven
- Microwave
- Standard Range
- Self Clean Range
- Sauna
- Trash Compactor
- Central Vacuum
- Security System

(15) Fireplaces
- Interior 1 Story
- Interior 2 Story
- 2nd/Same Stack
- Two Sided
- Exterior 1 Story
- Exterior 2 Story
- Prefab 1 Story
- Prefab 2 Story
- Heat Circulator
- Raised Hearth
- Wood Stove
- Direct-Vented Ga

(16) Porches/Decks

Area	Type
140	WGEP (1 Story)
25	WCP (1 Story)
25	CCP (1 Story)

(17) Garage

Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Class: CD
Effec. Age: 30
Floor Area: 1001
Total Base Cost: 59,716 CntyMult X 1.210
Total Cost New : 72,256 E.C.F. X 1.440
Total Depr Cost: 50,579
Estimated T.C.V: 72,834

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
1.75 Story	Siding	Basement	81.39	0.00	0.00	572	46,555

Other Additions/Adjustments	Rate	Size	Cost
(14) Water/Sewer			
Well, 200 Feet	4250.00	1	4,250
1000 Gal Septic	2495.00	1	2,495
(16) Porches			
WGEP (1 Story), Standard	30.39	140	4,255
WCP (1 Story), Standard	42.90	25	1,073
CCP (1 Story), Standard	43.55	25	1,089

Phy/Ab.Phy/Func/Econ/Comb.%Good= 70/100/100/100/70.0, Depr.Cost = 50,579
ECF (50 AGRICULTURAL) 1.440 => TCV of Bldg: 2 = 72,834

Information herein deemed reliable but not guaranteed

Building Type	Barn, General Purpose	Barn, General Purpose	Barn, General Purpose	Loafing Shed	Utility Shed, Lean-To
Year Built					
Class/Construction	D,Pole	D,Pole	D,Pole	D,Pole	D,Frame
Quality/Exterior	Average	Average	Low Cost	Low Cost	Low Cost
Base Rate/SF	12.01	12.01	8.62	3.35	5.43
# of Walls, Perimeter	4 Wall , 280	4 Wall , 280	4 Wall , 360	4 Wall , 400	4 Wall , 0
Perimeter Mult.	X 0.931 = 11.18	X 0.961 = 11.54	X 0.946 = 8.15	X 0.902 = 3.02	X 1.000 = 5.43
Height					
Story Height Mult.	X 0.946 = 10.58	X 0.946 = 10.92	X 0.946 = 7.71	X 0.946 = 2.86	X 0.946 = 5.14
Heating System	No Heating/Cooling	No Heating/Cooling	No Heating/Cooling	No Heating/Cooling	No Heating/Cooling
Heat Adj./SF					
Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.20 = 12.69	X 1.20 = 13.10	X 1.20 = 9.26	X 1.20 = 3.43	X 1.20 = 6.16
Final Rate/SF	$12.69	$13.10	$9.26	$3.43	$6.16
Length/Width/Area	60 x 80 = 4800	100 x 40 = 4000	140 x 40 = 5600	140 x 60 = 8400	0 x 0 = 0
Cost New	$ 60,927	$ 52,408	$ 51,839	$ 28,814	$
Phy./Func./Econ. %Good	60/100/100 60.0	64/100/100 64.0	30/100/100 30.0	30/100/100 30.0	30/100/100 30.0
Depreciated Cost	$ 36,556	$ 33,541	$ 15,552	$ 8,644	$
+ Unit-In-Place Items	$	$	$	$	$
Description, Size X Rate X %Good = Cost Itemized ->\ Unit-In-Place ->\ Items ->					
E.C.F.	X 1.12	X 1.12	X 1.12	X 1.12	X 1.12
Est. True Cash Value	$ 40,943	$ 37,566	$ 17,418	$ 9,681	$
Comments:					

Total Estimated True Cash Value of Agricultural Improvements / This Card: 105608 / All Cards: 105608

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-13-400-001-00 Jurisdiction: Norvell Twp County: Jackson Printed on 06/22/1998

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Building Permit(s)	Date	Number	Amount

Property Address
HORNING RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD PO BOX
JACKSON, MI 49202

Legal Description:
THAT PART OF E 1/2 OF E 1/2 OF SEC 13 LYING SOUTH OF LD OF LS & MS RR ALSO SW 1/4 OF SE 1/4. SEC 13 T4S R2E

Public Improvements		Topography of Site	
	Dirt Road		Level
	Gravel Road		Rolling
	Paved Road		Low
	Storm Sewer		High
	Sidewalk		Landscaped
	Water		Swamp
	Sewer		Wooded
	Electric		Pond
	Gas		Waterfront
	Curb		

Comments/Enhancing/Detracting Influences:

1998 Est. T.C.V. 370,906

Map #:

Prop. Class: 101 :

School District: 22 Hmstd 92% 06/30/94

Zoning: AG-1 √ Improved Vacant

Last Examination: / / By:

Land Value Estimates for Neighborhood #00050.50 AGRICULTURAL

Description	Frontage	Depth	Frontage	Depth	Rate	%Adj.	Reason	Value
			Factors for					
AGR	TILLABLE		160.00	Acres	1450	100		232,000
AGR	R/W		6.00	Acres	0	100		
			166.00	Total Acres	Total Est. Land Value =			232,000

Land Improvement Cost Estimates

Description	Rate	CountyMult.	Size	%Good	Cash Value
D/W/P: Asphalt Paving	1.37	1.00	1800	60	1,480
Total Estimated Land Improvements True Cash Value =					1,480

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
1998	116,000	69,453	185,453			119,058C
1997	70,752	66,318	137,070			115,928C
1996	57,000	60,959	117,959			112,771C
1995	55,500	54,200	109,700			109,700S

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Building Type
- ✓ Single Family
- ✓ Wood Frame

Building Style

YearBuilt: 0 | Remodeled

Condition for Age

Good

Room List

Basement
1st Floor
2nd Floor
Bedrooms

(1) Exterior
- ✓ Wood/Shingle
- Aluminum/Vinyl
- Brick

Insulation

(2) Windows

✓	Many Ave.	✓	Large Ave.
	Few		Small

Wood Sash
Metal Sash
Vinyl Sash
Double Hung
Horiz. Slide
Casement
Double Glass
Patio Doors
Storms&Screens

(3) Roof

✓	Gable		Gambrel
	Hip		Mansard
	Flat		

✓ Asphalt Shingle

Chimney: Brick

0 Eavestrough
Insulation
0 Front Overhang
0 Other Overhang

(4) Interior

Drywall	Plaster
Paneled	Wood T&G

Trim & Decoration

Ex	✓ Ord		Min

Size of Closets

Lg	✓ Ord	Small

Doors		Solid	✓ H.C.

(5) Floors

Kitchen:
Other:
Other:

(6) Ceilings

Drywall	Plaster
Tile	Suspended

(7) Excavation

Basement: 1763 S.F.
Crawl: 470 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement

Conc. Block: 0
Poured Conc.: 0
Stone: 0

Treated Wood
Concrete Floor

(9) Basement Finish

Recreation SF
Living SF
Walkout Doors
No Floor SF

(10) Floor Support

Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling

✓ Gas		Oil	Elec.
Wood		Coal	Steam

- ✓ Forced Warm Air
- Forced Warm Water
- Space Heater
- Heat Pump
- Wall/Floor Furnace

Central Air
Wood Furnace

(12) Electric

Amps Service

No./Qual. of Fixtures

Ex.	✓ Ord.	Min

No. of Elec. Outlets

Many	✓ Ave.	Few

(13) Plumbing

Average Fixture(s)
1 3 Fixture Bath
2 Fixture Bath
Softener, Auto
Softener, Manual
Solar Water Heat
No Plumbing
Extra Toilet
Extra Sink
Separate Shower
Ceramic Tile Floor
Ceramic Tile Wains
Ceramic Tub Alcove
Vent Fan

(14) Water/Sewer

Public Water
Public Sewer
1 Water Well
1 1000 Gal Septic
2000 Gal Septic

(15) Built-ins

Appliance Allow.
Cook Top
Dishwasher
Garbage Disposal
Bath Heater
Vent Fan
Hot Tub
Unvented Hood
Vented Hood
Intercom
Jacuzzi Tub
Oven
Microwave
Standard Range
Self Clean Range
Sauna
Trash Compactor
Central Vacuum

Lump Sum:

(15) Fireplaces

Interior 1 Story
Interior 2 Story
2nd on Same Stack
Two Sided
Exterior 1 Story
Exterior 2 Story
Prefab 1 Story
Prefab 2 Story
Heat Circulator
Raised Hearth
Wood Stove

(16) Porches/Decks

Area	Type
280	WCP (1 Story)
75	CGEP (1 Story)

(17) Garage

Year Built:
Class:
Exterior:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:

Carport Area:
Roof:

Class: D
Effective Age: 55
Floor Area: 3831

Total Base Cost: 113,768
County Mult.: 1.19
Total Cost New : 135,384
Total Depr Cost: 60,9234
E.C.F.: 1.120
Estimated T.C.V: 68,233

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
2	Story Brick	Full Bsmnt.	51.43	0.00	1.10	1433	75,275
1	Story Brick	Crawl Space	32.96	-5.51	0.55	470	13,160
1.5	Story Brick	Full Bsmnt.	41.90	0.00	0.83	330	14,099

Other Additions/Adjustments	Rate	Size	Cost
(14) Water/Sewer			
Water Well	2740.00	1	2,740
1000 Gal Septic	2250.00	1	2,250
(16) Porches			
WCP (1 Story), Standard	13.23	280	3,705
CGEP (1 Story), Standard	33.84	75	2,538

%Good= 45, Func.%Good= 100, Econ.%Good= 100 Depreciated Cost = 60,923

Building Type
- ✓ Single Family
- ✓ Wood Frame

Building Style

Year Built / Remodeled
0

Condition for Age
Good

Room List
Basement
1st Floor
2nd Floor
Bedrooms

(1) Exterior
- ✓ Wood/Shingle
- Aluminum/Vinyl
- Brick
- Insulation

(2) Windows
- ✓ Many Ave.
- Few
- ✓ Large Ave.
- Small

Wood Sash
Metal Sash
Vinyl Sash
Double Hung
Horiz. Slide
Casement
Double Glass
Patio Doors
Storms&Screens

(3) Roof
- ✓ Gable
- Hip
- Flat
- Gambrel
- Mansard

✓ Asphalt Shingle

Chimney: Brick

0 Eavestrough
Insulation
0 Front Overhang
0 Other Overhang

(4) Interior
- Drywall
- Paneled
- Plaster
- Wood T&G

Trim & Decoration

Ex | ✓ Ord | Min

Size of Closets

Lg | ✓ Ord | Small

Doors | Solid | ✓ H.C.

(5) Floors

Kitchen:
Other:
Other:

(6) Ceilings
- Drywall
- Tile
- Plaster
- Suspended

(7) Excavation

Basement: 572 S.F.
Crawl: 0 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement

Conc. Block: 0
Poured Conc.: 0
Stone: 0

Treated Wood
Concrete Floor

(9) Basement Finish

Recreation SF
Living SF
Walkout Doors
No Floor SF

(10) Floor Support

Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling

✓ Gas | Oil | Elec.
Wood | Coal | Steam

- ✓ Forced Warm Air
- Forced Warm Water
- Space Heater
- Heat Pump
- Wall/Floor Furnace

Central Air
Wood Furnace

(12) Electric

Amps Service

No./Qual. of Fixtures

Ex. | ✓ Ord. | Min

No. of Elec. Outlets

Many | ✓ Ave. | Few

(13) Plumbing

Average Fixture(s)

1 3 Fixture Bath
2 Fixture Bath
Softener, Auto
Softener, Manual
Solar Water Heat
No Plumbing
Extra Toilet
Extra Sink
Separate Shower
Ceramic Tile Floor
Ceramic Tile Wains
Ceramic Tub Alcove
Vent Fan

(14) Water/Sewer

Public Water
Public Sewer
1 Water Well
1 1000 Gal Septic
2000 Gal Septic

(15) Built-ins

Appliance Allow.
Cook Top
Dishwasher
Garbage Disposal
Bath Heater
Vent Fan
Hot Tub
Unvented Hood
Vented Hood
Intercom
Jacuzzi Tub
Oven
Microwave
Standard Range
Self Clean Range
Sauna
Trash Compactor
Central Vacuum

Lump Sum:

(15) Fireplaces

Interior 1 Story
Interior 2 Story
2nd on Same Stack
Two Sided
Exterior 1 Story
Exterior 2 Story
Prefab 1 Story
Prefab 2 Story
Heat Circulator
Raised Hearth
Wood Stove

(16) Porches/Decks

Area	Type
140	WGEP (1 Story)
25	WCP (1 Story)
25	CCP (1 Story)

(17) Garage

Year Built:
Class:
Exterior:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:

Carport Area:
Roof:

Class: D
Effective Age: 50
Floor Area: 1001

Total Base Cost: 41,646
County Mult.: 1.19
Total Cost New : 49,559
Total Depr Cost: 24,779
E.C.F.: 1.120
Estimated T.C.V: 27,753

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
1.75 Story	Siding	Full Bsmt.	53.75	0.00	0.97	572	31,299

Other Additions/Adjustments	Rate	Size	Cost
(14) Water/Sewer			
Water Well	2740.00	1	2,740
1000 Gal Septic	2250.00	1	2,250
(16) Porches			
WGEP (1 Story), Standard	25.37	140	3,552
WCP (1 Story), Standard	35.83	25	896
CCP (1 Story), Standard	36.37	25	909

%Good= 50, Func.%Good= 100, Econ.%Good= 100 Depreciated Cost = 24,779

Agricultural Improvement Card 1 of 1 Parcel Number: 000-20-13-400-001-00 Printed on 06/22/1998

Building Type	Barn				
Effective Age					
Class/Construction	D,Frame				
Quality/Exterior	Average				
Base Rate/SF	11.70				
# of Walls, Perimeter	4 Wall , 0				
Perimeter Mult.	X 1.000 = 11.70				
Height					
Story Height Mult.	X 0.963 = 11.27				
Heating System	No Heating/Cooling				
Heat Adj./SF					
Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.17 = 13.18				
Final Rate/SF	$13.18				
Length/Width/Area	0 x 0 = 0				
Cost New	$				
Phy./Func./Econ. %Good	100/100/100 100				
Depreciated Cost	$				
+ Unit-In-Place Items	$				
E.C.F.	X 1.12				
Est. True Cash Value	$ 41,440				
Comments:					

<<<<<<<<< Unit-In-Place Items >>>>>>>>>

Total Estimated True Cash Value of Agricultural Improvements / This Card: 41440 / All Cards: 41440

FARM ASSESSMENT RECORD

20-13-151-001 L 4190

000-20-13-151-001-00
GLYNN TROLZ & ASSOC INC
3450 ANN ARBOR RD
JACKSON MI 49204

PHYSICAL AND ECONOMIC FACTORS

Type of Road
Trading Center (name) miles
Market (name) miles
School (type) miles
☐ Electricity ☐ Telephone ☐ Gas Line

Fusp 4/1/11 Jane

ARNOLD RD

R/R

151-003-00

16.75 A
CONSERVATION TYPE LAND
MID-RANGE

VACANT

151-001-00

16.75 A

FRUIT

Type	Acres or No.	Age	Rate	Total
			$	$

Total Fruit $

LAND VALUE

Area No.	No. Acres	Value/A.	Total
VACANT	16.75	$ 550	$ 9,212

Total Land $

SUMMARY OF APPRAISAL

TOTAL LAND . . . . . $
TOTAL FRUIT . . . . . .
TOTAL BUILDINGS. . . . . .
TOTAL APPRAISED VALUE . . . . . $

Board of Review	1988	1989	1990	1991
LAND	3550	5,000	4500	4500
BUILDINGS				
Total	93			
State Tax Commission	4500			
LAND				
BUILDINGS				
Total				

Type	Class	Acres
Cropland and untillable pasture	1	
	2	
	3	
	4	

ORDER BY FORM NO. ML M294F (REV. 1973) MADE BY DOUBLEDAY BROS. & CO., KALAMAZOO, MICH.

FARM BUILDINGS AND IMPROVEMENTS

(SEE ATTACHED FIELD SHEET FOR RESIDENCE (S)

BUILDING TYPE								
YEAR BUILT								
YEAR REMODELED								
DIMENSIONS								
CONSTRUCTION								
FOUNDATION								
EXTERIOR								
ROOF TYPE								
ROOF COVER								
LOFT FLOOR								
BASEMENT FLOOR								
SQUARE FEET								
UNIT COST .								
BASE VALUE								
BUILDING ADJUST.								
EQUIPMENT ADJUST.								
ADJUSTED TOTAL								
PHYSICAL COND. %								
DEPRECIATED VALUE								
COST MOD. X E.C.F.	COMPOSITE MULTIPLIER	COMPOSITE MULTIPLIER	COMPOSITE MULTIPLIER	COMPOSITE MULTIPLIER	COMPOSITE MULTIPLIER	COMPOSITE MULTIPLIER	COMPOSITE MULTIPLIER	COMPOSITE MULTIPLIER
TRUE CASH VALUE								

PERSON INTERVIEWED _____

EXAMINED BY . . . . . DATE _____

PRICED BY . . . . . DATE _____

CHECKED BY . . . . . DATE _____

REMARKS

FARM BLDGS. . . . . $ _____

RESIDENCE #1 . . . . . $ _____

RESIDENCE #2 . . . . . $ _____

OTHER . . . . . $ _____

TOTAL TO FRONT OF CARD . . . . . $ _____

COUNTY	
TOWNSHIP	Norvell
OWNER	Glynn Trotz & Assoc
~~CODE NO.~~	3640 Ann Arbor
SECTION	TOWN RANGE

PHYSICAL AND ECONOMIC FACTORS

Road(s) | Town:
Type(s) | Miles Away:

☐ Electricity ☐ Telephone ☐ Gas Line

☐ Well ☐ Septic ☐ Public Water ☐ Public Sewer

TILING: Size | Land Rent $ /Acre

☐ Random ☐ Pattern Spacing: Acres:

DESCRIPTION

20-13-151-001-00	T13-9	16.75	3550
003-00	T13-13C	1.6 ±	840
		18.35	4,390

SALE DATA

Price: | Sale Date: Part of a Larger
Gtor: | Liber/Page Parcel
Gtee: | ☐ Deed ☐ LC over 50a

TOTAL ACREAGE OWNED:

SALE/PRODUCTIVITY ANALYSIS

SOIL TYPE	Slope	Produc Group	No. of Acres	% Rating	Equiv Acres

TOTAL EQUIVALENT ACRES:

Sale Price / Tillable Land / Equiv. Acres = No. 1 Land Price $ _____ = $

LAND VALUE

Area No.	No. Acres	Value/A.	Total
		$	$
Cons	12.3	750	9225
Swamp	6	115	690
Surface R.O.W.'s			

TOTAL LAND $

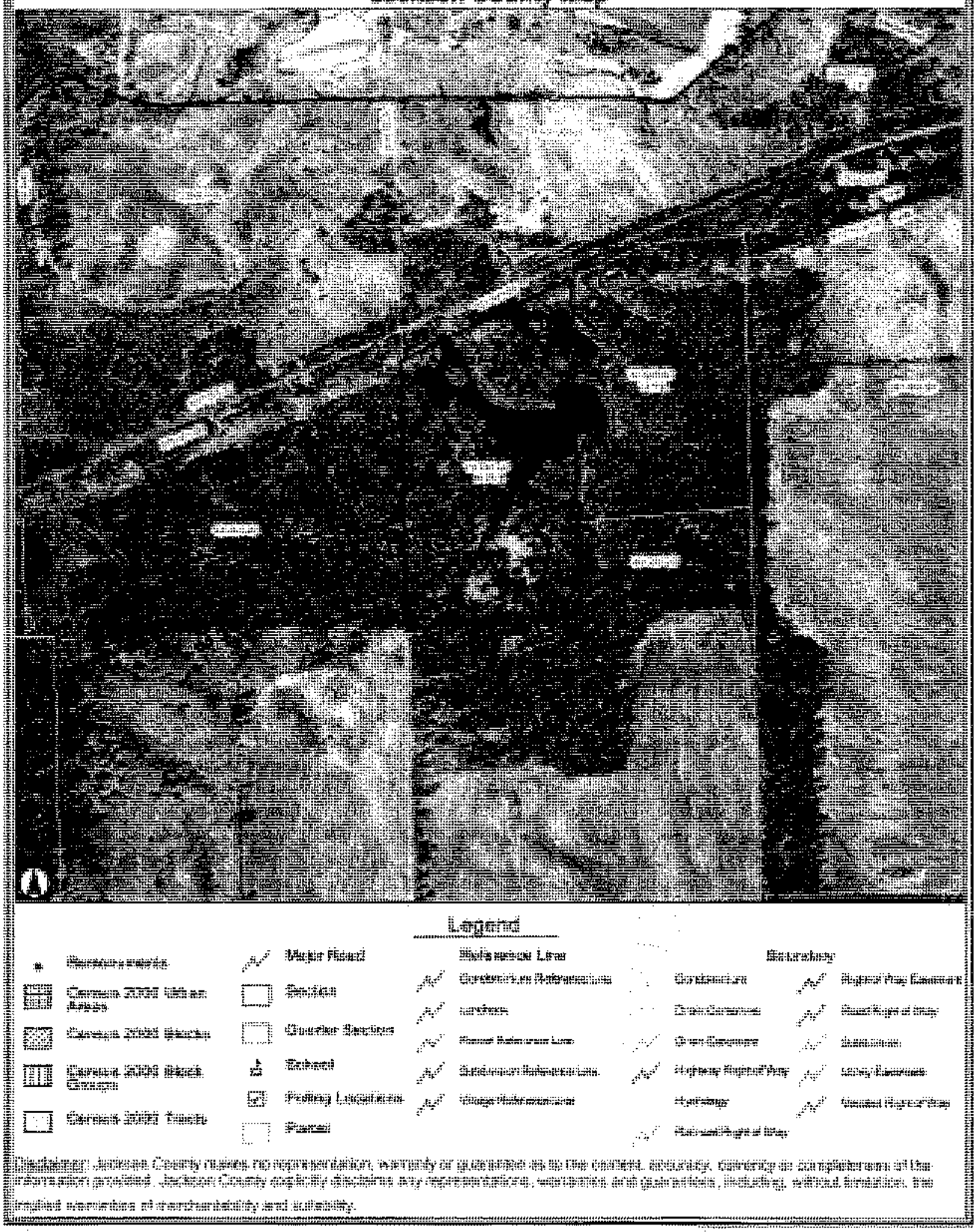
SUMMARY OF APPRAISAL

TOTAL LAND ..... $
TOTAL LAND IMPROVEMENTS .....
TOTAL BUILDINGS .....
TOTAL APPRAISED VALUE ..... $ 9915

ROUNDED TO: $

YR.	ASSESSED VALUATION	BOARD OF REVIEW	TAX TRIBUNAL
88	4390		4428

#000-20-13-151-001-00



3.17 Water
(4.90 Swamp)
(2.75 Swamp)

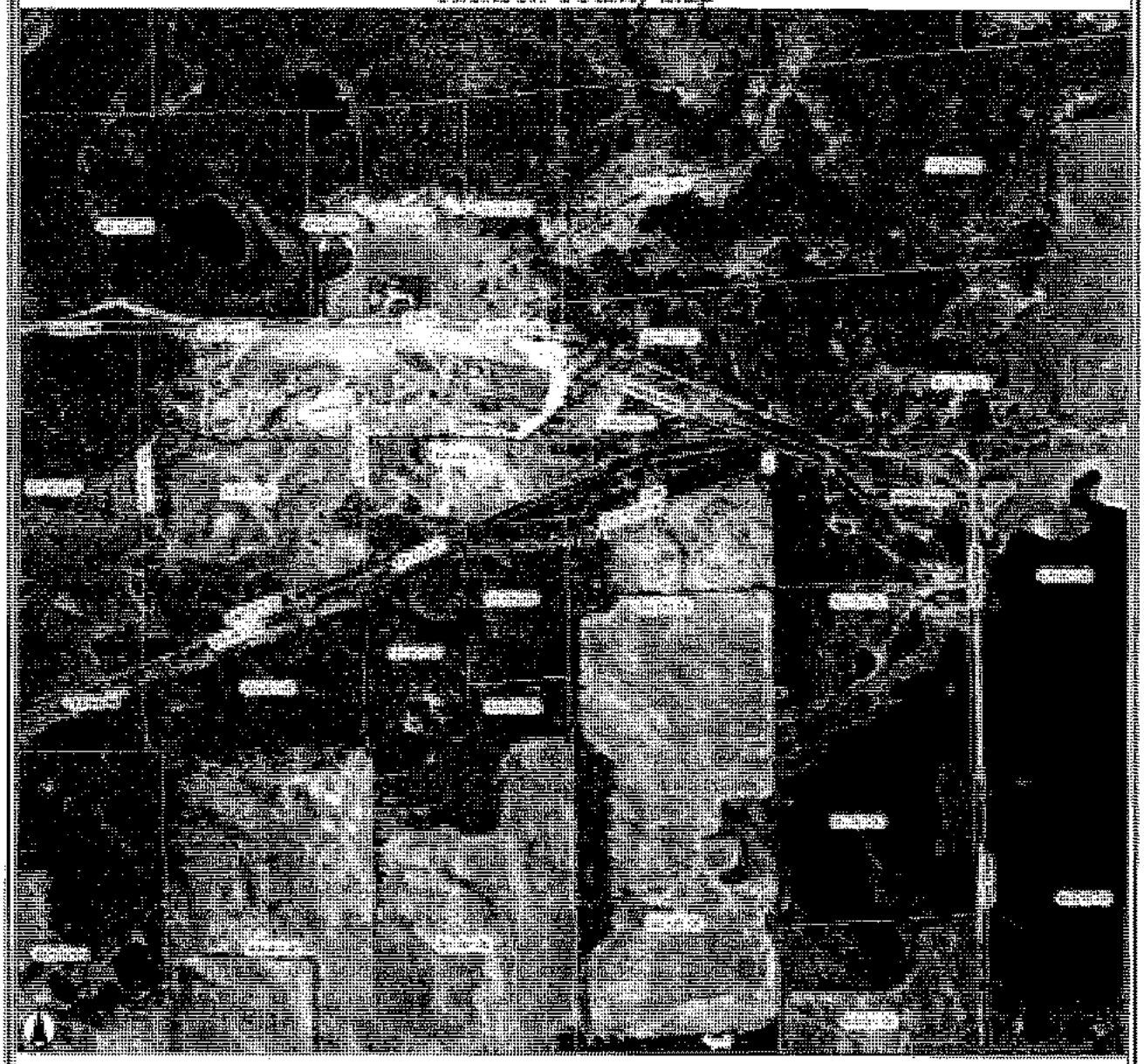
5.93 - Brush

LAND LOCKED
BEFORE CURVE AT
ARNOLD

[illegible]

Jackson County GIS - Interactive Mapping Application

Jackson County Map



Legend

- Remonuments
- Census 2000 Urban Areas
- Census 2000 Blocks
- Census 2000 Block Groups
- Census 2000 Tracts
- Major Road
- Section
- Quarter Section
- School
- Polling Locations
- Postal

Reference Line

- Condominium Reference Line
- Landmark
- Fence Reference Line
- Subdivision Reference Line
- Village Reference Line

Boundary

- Condominium
- Drain Conveyance
- Drain Easement
- Highway Right of Way
- Hydrology
- Railroad Right of Way
- Right of Way Easement
- Road Right of Way
- Sewerage
- Utility Easement
- Vacated Right of Way

Disclaimer: Jackson County makes no representation, warranty or guarantee as to the content, accuracy, currency or completeness of the information provided. Jackson County expressly disclaims any representations, warranties and guarantees, including, without limitation, the implied warranties of reprochantability and suitability.

Parcel Number: 000-20-13-151-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 04/27/2012

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
ARNOLD RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD
JACKSON MI 49204

Description
THAT PART OF W 1/2 OF SW 1/4 OF NW 1/4 LYING S OF RR R/W. SEC 13 T4S R2E

Comments/Influences

The Equalizer. Copyright (c) 1999 - 2000. Licensed to: Norvell Township, Jackson County

Class: Agricultural Vaca | Zoning: RES

School: District 38040

P.R.E. 100% / /

Map #:

2012 Est TCV 36,050

Building Permit(s)	Date	Number	Status

	Improved	X	Vacant

Public Improvements

X	Dirt Road
	Gravel Road
	Paved Road
	Storm Sewer
	Sidewalk
	Water
	Sewer
	Electric
	Gas
	Curb
	Street Lights
	Standard Utilities
	Underground Utils.

Topography of Site

	Level
	Rolling
X	Low
	High
	Landscaped
	Swamp
X	Wooded
	Pond
	Waterfront
	Ravine
X	Wetland
	Flood Plain

Who	When	What
JG	04/02/2011	Data Ent
JG	04/01/2011	Inspecte

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Rate Table POND/GOOD		3.17 Acres	3000	100				9,510
Rate Table CONSERVATION		5.93 Acres	3250	100				19,272
Rate Table SW/WW - 10-40A		7.65 Acres	950	100				7,268
		16.75 Total Acres					Total Est. Land Value =	36,050

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2012	18,030		18,030			6,628C
2011	23,020		23,020			6,454C
2010	23,960		23,960			6,347C
2009	23,960		23,960			6,367C

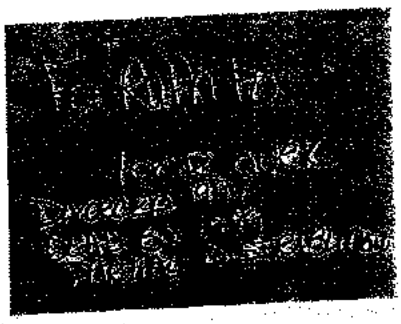
Information herein deemed reliable but not guaranteed

RECEIVED
9/8/2014

LOOMIS

LOOMIS, EWERT, PARSLEY, DAVIS & GOTTING P.C.

ATTORNEYS AT LAW



JACK C. DAVIS PC
KARL L. GOTTING PLLC
JAMES R. NEAL
KENNETH W. BEALL PLLC
MICHAEL G. OLIVA
CATHERINE A. JACOBS
MICHAEL H. RHODES [1,2]
JEFFREY L. GREEN
JEFFREY S. THEUER[3]
KEVIN J. RORAGEN
RICHARD W. PENNINGS

TED S. ROZEBOOM
MICHAEL F. MATHESON[4]
SARA L. CUNNINGHAM[5]
TRACEY L. LACKMAN
JAMES F. ANDERTON, V[6]
MICHAEL G. STEFANKO[7]
MIEKE V. WEISSERT
LEAH J. BROOKS
WARREN H. KRUEGER, III
ELIZABETH HUSA BRIGGS[8]
DOMINIC R. RIOS

OF COUNSEL:
WILLIAM D. PARSLEY
MICHAEL A. HOLMES
PAULA K. MANIS PLLC[1,4,8]
KELLY REED LUCAS[8]
COLIN W. MAGUIRE

[1] ALSO LICENSED IN OH
[2] ALSO LICENSED IN PA
[3] ALSO LICENSED IN MD
[4] ALSO LICENSED IN IL
[5] ALSO LICENSED IN FL
[6] ALSO LICENSED IN NY
[7] ALSO DPA
[8] EASTWOOD OFFICE

August 28, 2014

Ms. Ruth A. Scott, Assessor of Record
Norvell Township
PO Box 385
Norvell, Michigan 49263-0188

Re: Transfers from Estate of Glynn Trolz, Glynn Trolz and Associates to G.T. Ranch LLC

Dear Ms. Scott:

I am writing this letter to follow through on discussions regarding the tax exemptions for transfers between the above entities.

The following parcels were transferred from the Estate of Glynn A. Trolz to Glynn Trolz and Associates, Inc.:

000-20-12-251-002-00
000-20-12-276-001-00

Those properties were then transferred from Glynn Trolz and Associates to GT Ranch, LLC

In addition, the following parcels were transferred from Glyn Trolz and Associates to GT Ranch, LLC.

000-20-12-101-001-00
000-20-12-176-001-00
000-20-12-251-001-00
000-20-12-251-002-00

LANSING OFFICE:
124 W. ALLEGAN STREET, SUITE 700
LANSING, MI 48933-1784
517-482-2400

EASTWOOD OFFICE:
2400 LAKE LANSING ROAD, SUITE E
LANSING, MI 48912-3674
517-485-0400

000-20-12-376-001-00
000-20-12-376-001-00

000-20-13-151-001-00
000-20-13-151-003-00
000-20-13-201-001-00
000-20-13-251-001-00
000-20-13-301-001-00
000-20-13-400-001-00

000-20-14-201-001-00
000-20-14-276-001-00
000-20-14-400-001-00
000-20-24-200-001-00
000-20-24-301-001-00
000-20-24-301-002-00
000-20-24-351-001-00

000-20-25-101-001-00

In my opinion, all of these parcels would be exempt from having the real estate taxes uncapped under two theories: 1) the properties are qualified agricultural property MCL 211.7dd; and 2) commonly controlled entities, MCL 211.27a(7)(1). The agricultural property exemption is clear. However, I want to give you the history of the corporations and individuals and the exemption under the commonly controlled entities theory.

The beneficiaries of the Estate of Glynn A. Trolz at the time of the transfers were Gary Trolz, Glynn Trolz, II, James Trolz and Lisa Hunt. Glynn Trolz and Associates had only one stockholder, Glynn A. Trolz, and therefore, when he died, the sole shareholder was the Estate of Glynn A. Trolz. Therefore, when the transfers occurred from the Estate of Glynn A. Trolz to Glynn Trolz and Associates, the control was the same individuals, the ultimate beneficiaries of the estate, Gary Trolz, Glynn Trolz II, James Trolz and Lisa Hunt. Glynn Trolz and Associates, Inc. then established GT Ranch, LLC and was the sole member of GT Ranch, LLC. Because the beneficiaries, Gary Trolz, Glynn Trolz, II, James Trolz and Lisa Hunt were vested owners of Glynn Trolz and Associates, Inc., they were the only vested owners of GT Ranch, LLC at the time the transfers occurred.

The State Tax Commission has directed that the Michigan Revenue Administrative Bulletin 1989-48 is to be used in determining whether entities are commonly controlled. The Michigan Revenue Administrative Bulletin 1989-48 and case law determining common control look to the owners of an entity to see if they are common and to the beneficiaries of trusts and estates, such as you have in this instance. Who is the trustee of a trust or personal representative of an estate is not the issue. The issue is who are the beneficiaries of these entities. In *Sebastian J. Mancuso Family Trust v City of Charlevoix COA, unpublished February 5, 2013,* the court

held that beneficiaries have an ownership interest in the property. Therefore, two entities with the same beneficiaries may constitute "commonly controlled" entities. This finding was based on the fact that although the trustee, or personal representative, has extensive control over the trust, or the estate, he or she is ultimately liable to the beneficiaries. The Michigan Tax Tribunal applied the *Mancuso Family Trust* decision and found that a trust (estate) and a partnership were legal entities which were commonly controlled by looking through to the beneficiaries of the trust (estate). The beneficiaries have the control of the trust and the trust was the sole owner of the partnership. In the case of the Trolz family, the beneficiaries of the Estate of Glynn A. Trolz were the ultimate owners of Glynn Trolz and Associates, Inc. and the ultimate owners of GT Ranch, LLC, which was solely owned by Glynn Trolz and Associates, Inc.

In my opinion, the transfers addressed in this letter are exempt under MCL 211.7dd and MCL 211.27a(7)(1). I do not recall if the proper documentation had been given to you at the time of recording. If the proper documents were not presented to you at the time of recording, please let me know and I will have them completed.

Very truly yours,

LOOMIS, EWERT, PARSLEY,
DAVIS & GOTTING, P.C.

Catherine A. Jacobs

Catherine A. Jacobs

cc: Gary Trolz

Parcel Number: 000-20-13-151-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 03/31/2010

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
ARNOLD RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD
JACKSON MI 49204

Description
THAT PART OF W 1/2 OF SW 1/4 OF NW 1/4 LYING S OF RR R/W. SEC 13 T4S R2E

Comments/Influences

Class: Agricultural Vaca Zoning: RES

School: District 38040

P.R.E. 100% / /

Map #:

2010 Est TCV 47,925

	Building Permit(s)	Date	Number	Status

[ ] Improved [X] Vacant

Public Improvements

- [ ] Dirt Road
- [ ] Gravel Road
- [ ] Paved Road
- [ ] Storm Sewer
- [ ] Sidewalk
- [ ] Water
- [ ] Sewer
- [ ] Electric
- [ ] Gas
- [ ] Curb
- [ ] Street Lights
- [ ] Standard Utilities
- [ ] Underground Utils.

Topography of Site

- [ ] Level
- [ ] Rolling
- [ ] Low
- [ ] High
- [ ] Landscaped
- [ ] Swamp
- [ ] Wooded
- [ ] Pond
- [ ] Waterfront
- [ ] Ravine
- [ ] Wetland
- [ ] Flood Plain

Who When What

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Acreage Table 'A'			15.750 Acres		5071	60	LOW	47,925
			15.75 Total Acres		Total Est. Land Value =			47,925

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2010	23,960		23,960			6,347C
2009	23,960		23,960			6,367C
2008	19,890		19,890			6,099C
2007	20,728		20,728			5,962C

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Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-13-151-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 03/10/2009

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
ARNOLD RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD
JACKSON MI 49204

Legal Description
THAT PART OF W 1/2 OF SW 1/4 OF NW 1/4
LYING S OF RR R/W. SEC 13 T4S R2E

Comments/Influences

Class: Agricultural Vaca | Zoning: RES
School: District 38040
P.R.E. 100% / /
Map #:
2009 Est TCV 47,925

Building Permit(s)	Date	Number	Status

Improved | X | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who When What

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Acreage Table 'A'			15.750	Acres	5071	60	LOW	47,925
			15.75	Total Acres	Total Est. Land Value =			47,925

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2009	23,960		23,960			6,367C
2008	19,890		19,890			6,099C
2007	20,728		20,728			5,962C
2006	14,793		14,793			5,750C

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Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-13-151-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 05/14/2008

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
ARNOLD RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD
JACKSON MI 49204

Legal Description
THAT PART OF W 1/2 OF SW 1/4 OF NW 1/4 LYING S OF RR R/W. SEC 13 T4S R2E

Comments/Influences

Class: Agricultural Vaca Zoning: RES

School: District 38040

P.R.E. 100% / /

Map #:

2008 Est TCV 39,781

Building Permit(s)	Date	Number	Status

	Improved	X	Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who When What

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Acreage Table 'A'			16.750 Acres		4750	50		39,781
			16.75 Total Acres			Total Est. Land Value =		39,781

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2008	19,890		19,890			6,099C
2007	20,728		20,728			5,962C
2006	14,793		14,793			5,750C
2005	14,225		14,225			5,567C

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Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-13-151-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 05/21/2007

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
ARNOLD RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD
JACKSON MI 49204

Legal Description
THAT PART OF W 1/2 OF SW 1/4 OF NW 1/4 LYING S OF RR R/W. SEC 13 T4S R2E

Comments/Influences

Class: Agricultural Vaca Zoning: RES
School: District 38040
P.R.E. 100% / /
Map #:
2007 Est TCV 41,456

	Building Permit(s)	Date	Number	Amount

Improved | X | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who When What

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Acreage Table 'A'			16.750 Acres		4950	50		41,456
			16.75 Total Acres				Total Est. Land Value =	41,456

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2007	20,728		20,728			5,962C
2006	14,793		14,793			5,750C
2005	14,225		14,225			5,567C
2004	13,695		13,695			5,442C

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Information herein deemed reliable but not guaranteed

Michigan Department of Treasury
T-1063 (6/94)

Issued under P.A. 331 of 1993, or P.A. 312 of 1993.
Filing is required if you wish to receive an exemption.

CLAIM FOR FARMLAND EXEMPTION FROM SOME SCHOOL OPERATING TAXES

Do you need to file this claim?

If you answer "YES" to either of these questions, you do NOT need to file this form.

→ Is the property vacant and classified agricultural?
(Note: Vacant property classified as agricultural is automatically exempt from some school taxes and the changes will be made on your next tax bill.)

→ Have you already filed the *Homestead Exemption Affidavit* for this property?

If you answered "NO" to both of these questions and the property is used primarily for agricultural purposes but is not classified as agricultural, complete this form and file it with your local unit by **June 1, 1994**.

If your property has a residence or other buildings on it, your assessor may ask you to complete this form.

Section 1. File a separate claim for each qualified parcel.

1. Name of Owner (first, middle, last): GLYNN TROLZ & ASSOCIATES, INC.
Name of Co-Owner (first, middle, last):
Street Address of Property Claimed: 3460 Ann Arbor Rd.
City and State: Jackson, MI
ZIP Code: 49202
Name of Township/City Where Property is Located: Norvell
County of Property: Jackson

Check one: ☑ Township ☐ City

2. Enter below the property tax identification number of the qualified property you are claiming. This number is on your tax bill or your assessment notice. Start at the left and leave any extra spaces blank. Use a full space for any hyphens (-) in the number.

0 0 - 2 0 - 1 3 - 1 5 1 - 0 0 1 - 0 0

Section 2: Farmland.

a. If this property is **not** classified as agricultural, is more than 50% of the acreage devoted to an agricultural use? (Skip this question if your property is classified agricultural.) Yes ☐ No ☐

b. Does this property include any residences occupied by a person who is not involved in the agricultural operation? Yes ☐ No ☐

c. If the property includes a residence, has the occupant filed a *Homestead Exemption Affidavit* for a different residence? Yes ☐ No ☐

d. Does this property include any buildings not involved in the agricultural operation? Yes ☐ No ☐

If you answered 'yes' to items 2b, 2c or 2d, part of your property does not qualify. You must enter a percentage in Section 3.

Section 3: Multi-Purpose Property. *If you answered 'yes' to item 2b, 2c or 2d, give the percentage of the property value that is devoted to agricultural use. Exclude from this percentage the value of any property that does not qualify (see instructions on back). This information is necessary for your township or city to adjust your property taxes properly. (See back for computation.)*

Certification: *This affidavit is invalid unless it is signed.*

I certify, under penalty of perjury, that I own (or co-own) the property claimed on this affidavit, that it is qualifed agricultural property, and that all information is true to the best of my knowledge.

Owner's Signature	Date	Co-owner's Signature	Date
[signature]	5-26-94		

FARM ASSESSMENT RECORD

000-20-13-301-001-00
GLYNN TROLZ & ASSOC INC
3450 ANN ARBOR RD PO BOX 249
JACKSON MI 49202

SECTION ____ TOWN ____

Insp 4/1/11 Jane

PHYSICAL AND ECONOMIC FACTORS

Road B. T.
Center (name) ____ miles
(name) ____ miles
(type) ____ miles

☑ Electricity ☐ Telephone ☐ Gas Line

Housing

11/90 WER

FRUIT

Type	Acres or No.	Age	Rate	Total
			$	$
84.75	TOTAL			
	4			
	1			—

Total Fruit $ —

LAND VALUE

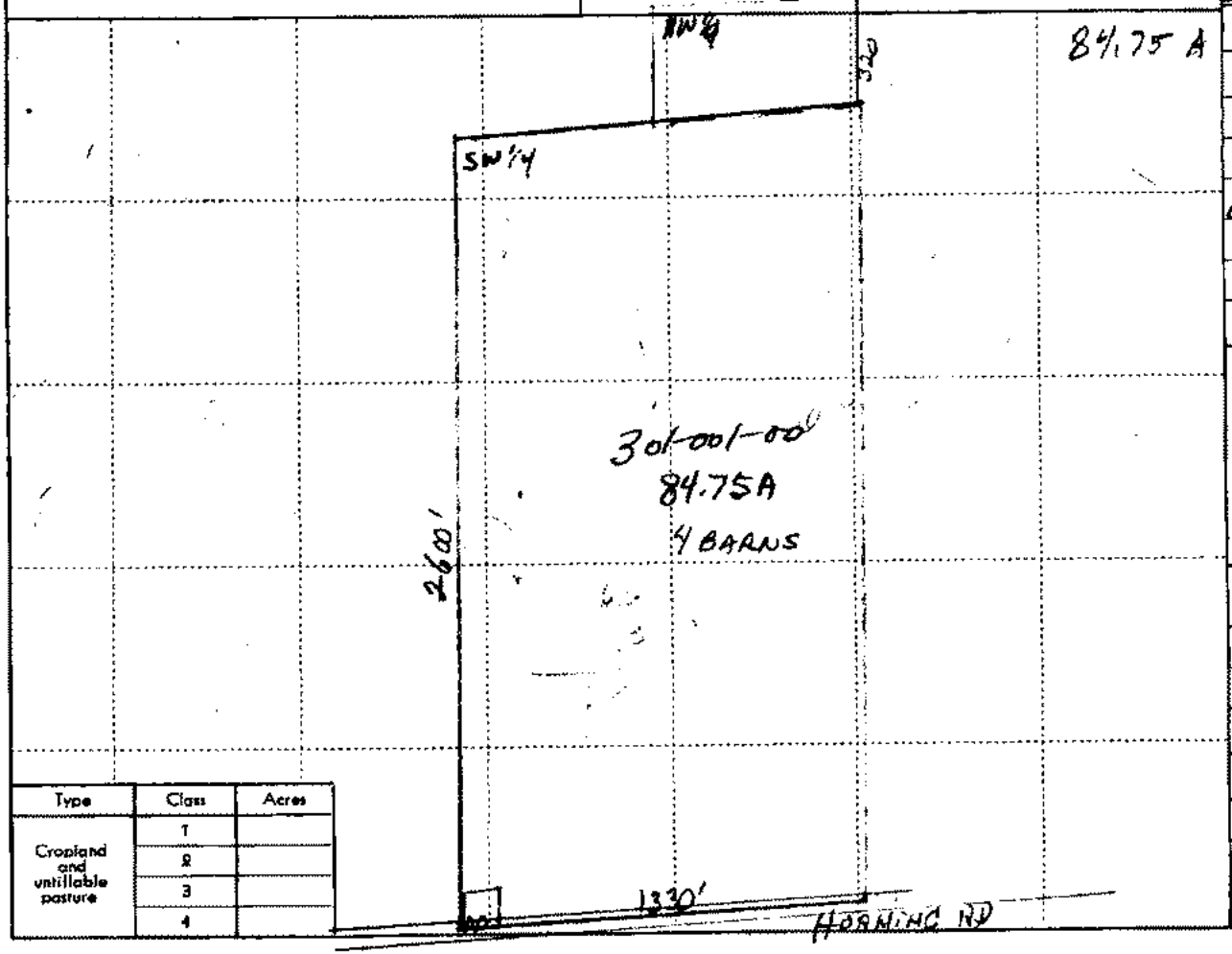
Area No.	No. Acres	Value/A.	Total
FARMLAND	69	$ 700	$ 48,000
CONSERVATION	14.82	500	7,410
RW	.93		

Total Land $ 55,410

SUMMARY OF APPRAISAL

TOTAL LAND . . . . . $ 55,410
TOTAL FRUIT . . . . . —
TOTAL BUILDINGS. OUT BLDGS. ONLY 13,738
TOTAL APPRAISED VALUE . . . . . $ 69,148

Board of Review	19 77	19 78	19 79	19 1000
LAND	23,600	24,600	25,600	27,700
BUILDINGS	92			
Total				
State Tax Commission	81	82	84	87
LAND	31,100	35,000	37,000	36,000
BUILDINGS	89	90	91	93
Total	41,000	37,000	35,000	130



Type	Class	Acres
Cropland and untillable pasture	1	
	2	
	3	
	4	

1. Type
- Single Family

2. Frame
- Wood

3. Exterior
- Wood
- Aluminum
- Brick
- Block

4. Roof
- Hip
- Gable
- Front Overhang
- Other Overhang
- Eavestrough
- Chimney Type:
  - Brick | Block
  - Stone | Metal
- Asphalt Shingles

5. Windows
- Many | Few
- Large | Small
- Wood Sash
- Metal Sash
- Double Hung
- Hor. Sliding
- Double Glass
- Complete Trim
- No Inside Trim
- Storms & Scr.

6. Year Built:

7. Year Remod.

8. Number Rooms
- Basement
- 1st Floor
- 2nd Floor
- Baths

9. Insulation
- Ceiling
- Entire
- None

10. Floor Support
- Joists " x ", " o.c.
- Unsupported Length ft.
- Sill Plate: ☐ Yes ☐ No
- Diag. Sub-Floor " x "
- Ply. Sub-Floor " x "
- Center Support

11. Basement & Foundation
- Crawl Space s.f.
- Slab House s.f.
- Basement s.f.
- Height to Joists ft.
- Concrete Block "
- Concrete Walls "
- Concrete Floor
- Asphalt Tile s.f.
- Recreation Room s.f.

12. Heating & Air Conditioning
- Gas - Forced Warm Air
- Oil - Forced Warm Air
- Gas | Oil | Coal
- Wall Fur. | Floor Fur.
- Stove or Space Heat
- Steam Radiators
- Forced Warm Water
- AIR CONDITIONER tons
- FIREPLACE ft.

13. Interior
- Trim & Decoration:
- Elab. | Ord. | Min.
- Size of Closets:
- Large | Ord. | Small
- Number of Closets:
- Many | Ord. | Few
- No. & Qual. Electric Fixtures:
- Ex. | Ord. | Min.
- No. Electric Outlets:
- Many | Ord. | Few
- Foyer
- Kit. Fl.
- Other Fl.
- Drywall
- Plaster
- Coved Ceilings
- Paneled Wainscot
- Hardware Qual.

14. Plumbing
- No. of Baths $
- Cer. Tile Walls
- Cer. Tile Floor
- Plastic Tile Walls
- Extra Stool
- Extra Wash Bowl
- Water Heater:
- Gals. | Gas | Elec.

15. Built-In Items
- Oven Range $
- Disposal
- Hood & Fan
- Dishwasher
- Refrigerator
- Incinerator
- Vanities
- Cupboard Length
- Cupboard Quality

16. Garage
- Year Built
- Attached | Separate
- Cars | Condition
- Wide | Deep
- Walls
- Floor
- Doors
- Common Wall
- Other Walls
- Ceiling

17. Porches

Wide	Deep	Type

- Priced by
- Date
- Checked By
- Date

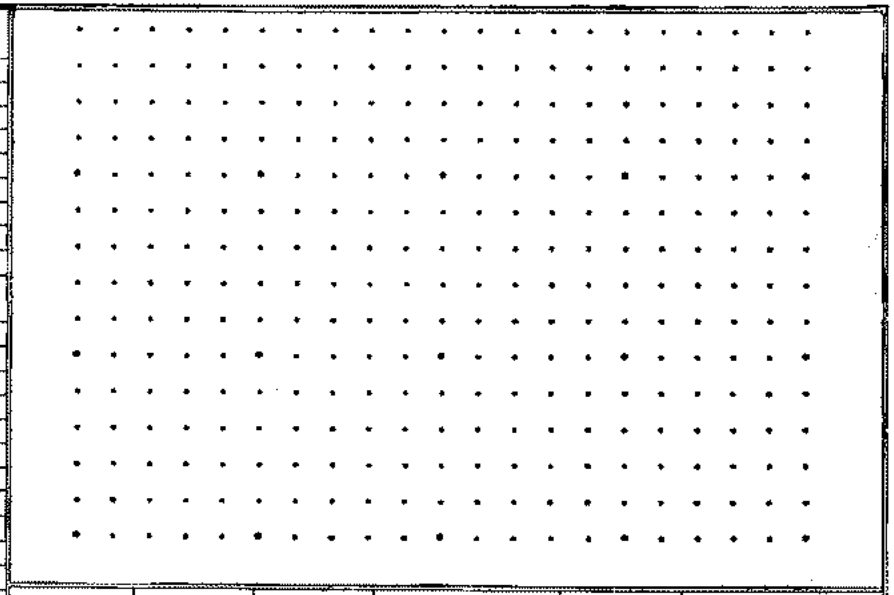
CLASS Size for Rates

Typical Classes of Other Houses in this Neighborhood

Neighborhood is ☐ Improving ☐ Stable ☐ Declining

Condition for Age

Effective Age



ITEM OR NO. STORIES	SQUARE FEET	~~UNIT COST~~	BASE VALUE	DEPR. & OBSOL. % GOOD	DEPR. VALUE
		$	$		$
Shed	2 x 12	600	1/2 2p-32		
Cr...	6x6-6x6				
Shed	16x12	816	= 7939		
	12 x 26	312			
Hog house Chicken	8'x22	12.16	10.64 = 13577		
Shed	20x50	1000	4.22 4220		
			28,268 1.08	45%	13738
Hog Barn	25 x 30				
Barn	30 x 30				
Util	36 x 20				
Barn	48 x 18		1/2 value		

Total Depr. Value $ _____

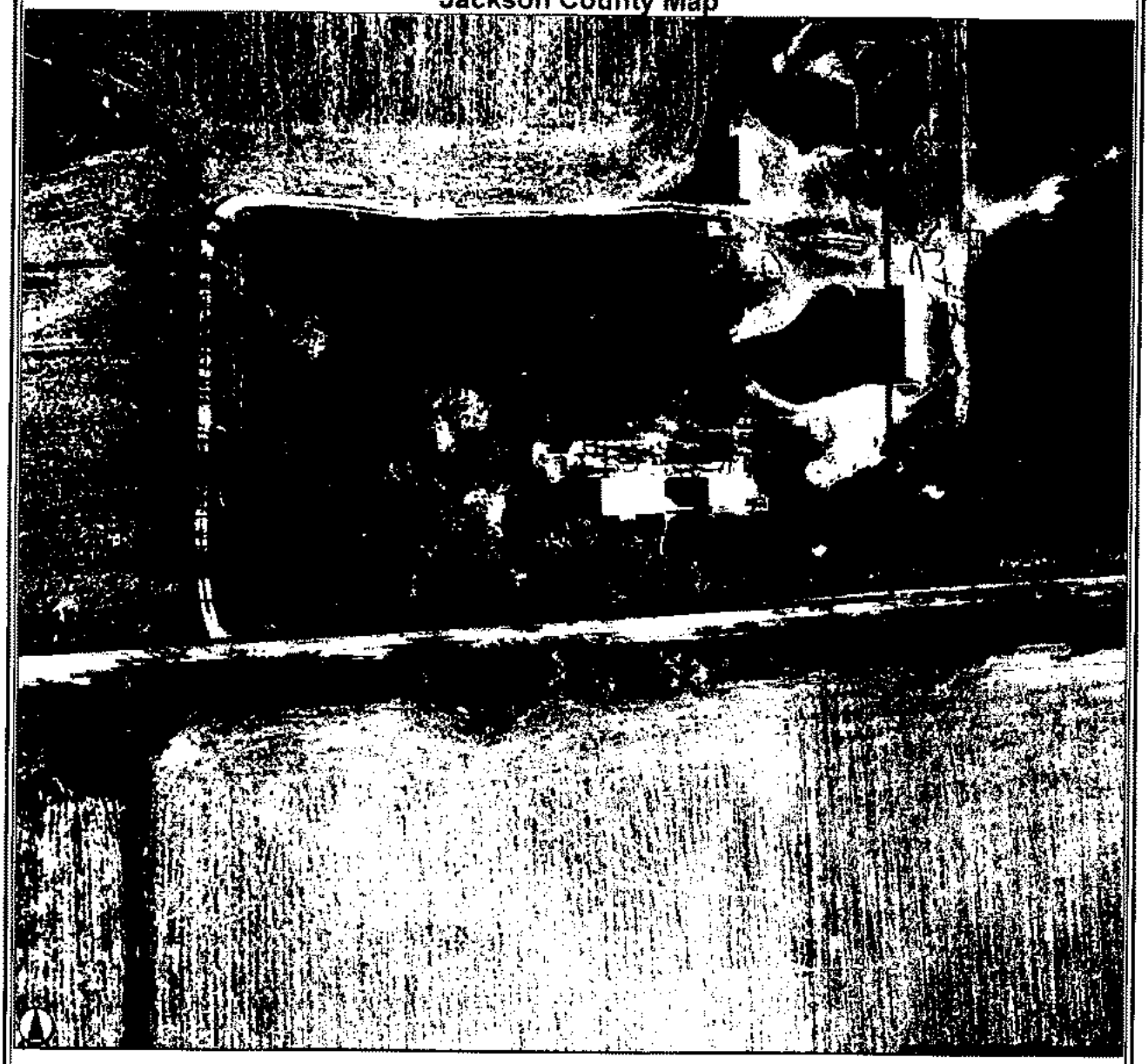
Econ. Cond. Factor x _____ %

True Cash Value $ _____

000-20-13-301-001-00

Jackson County GIS - Interactive Mapping Application

Jackson County Map



Legend

- Remonuments
- Census 2000 Urban Areas
- Census 2000 Blocks
- Census 2000 Block Groups
- Census 2000 Tracts
- Major Road
- Section
- Quarter Section
- School
- Polling Locations
- Parcel

Reference Line

- Condominium Reference Line
- Landlock
- Parcel Reference Line
- Subdivision Reference Line
- Village Reference Line

Boundary

- Condominium
- Drain Centerline
- Drain Easement
- Highway Right of Way
- Hydrology
- Railroad Right of Way
- Right of Way Easement
- Road Right of Way
- Subdivision
- Utility Easement
- Vacated Right of Way

Disclaimer: Jackson County makes no representation, warranty or guarantee as to the content, accuracy, currency or completeness of the information provided. Jackson County explicitly disclaims any representations, warranties and guarantees, including, without limitation, the implied warranties of merchantability and suitability.

ACROSS FROM 1371 HORNING RD

4 CALLS

#000-2013-301-00/-00

Jackson County GIS - Interactive Mapping Application

Jackson County Map

Legend

- Remonuments
- Census 2000 Urban Areas
- Census 2000 Blocks
- Census 2000 Block Groups
- Census 2000 Tracts
- Major Road
- Section
- Quarter Section
- School
- Polling Locations
- Parcel

Reference Line

- Centerline Reference Line
- Landlock
- Private Reference Line
- Subdivision Reference Line
- Village Reference Line

Boundary

- Condominium
- Drain Centerline
- Drain Easement
- Highway Right of Way
- Hydrology
- Railroad Right of Way
- Right of Way Easement
- Road Right of Way
- Subdivision
- Utility Easement
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000-20-13-301-00/-00

Jackson County GIS - Interactive Mapping Application

Jackson County Map

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- Remonuments
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- Major Road
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Reference Line
- Condominium Reference Line
- Landhook
- Parcel Reference Line
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Boundary
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- Drain Centerline
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- Highway Right of Way
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- Railroad Right of Way
- Right of Way Easement
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Tillable - 63.36 84.75
Site - 1.81
Woods - 15.5
Brush/Pasture - 4.08

Parcel Number: 000-20-13-301-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 04/27/2012

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
HORNING RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD PO BOX
JACKSON MI 49202

Description
THE S 5A OF E 1/2 OF SW 1/4 OF NW 1/4
ALSO W 1/2 OF SW 1/4 EXC THEREFROM THE S
7 RDS OF W 6 RDS THEREOF FOR SCHOOL SITE.
SEC 13 T4S R2E

Comments/Influences

Class: Agricultural Vaca | Zoning: RES
School: District 38040
P.R.E. 100% / /
Map #:
2012 Est TCV 345,409

Building Permit(s)	Date	Number	Status

X Improved | Vacant

Public Improvements

X	Dirt Road
	Gravel Road
	Paved Road
	Storm Sewer
	Sidewalk
	Water
	Sewer
	Electric
	Gas
	Curb
	Street Lights
	Standard Utilities
	Underground Utils.

Topography of Site

	Level
	Rolling
	Low
X	High
	Landscaped
	Swamp
	Wooded
	Pond
	Waterfront
	Ravine
	Wetland
	Flood Plain

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Rate Table +40 - 80 ACRES		62.43 Acres			3750	100		234,113
Rate Table BUILDING SITE		1.81 Acres			10000	100		18,100
Rate Table WOODS- 10-40 AC		15.50 Acres			3750	100		58,125
Rate Table PASTURE- 10-40A		4.08 Acres			3200	100		13,056
Rate Table ROAD R/W		0.93 Acres			0	100		
		84.75 Total Acres			Total Est. Land Value =			323,394

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2012	161,700	11,000	172,700			52,297C
2011	165,100	13,890	178,990			50,923C
2010	157,500	9,120	166,620			50,072C
2009	157,500	9,120	166,620			50,223C

Who	When	What
JG	04/02/2011	Data Ent
JG	04/02/2011	Inspecte

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Licensed to: Norvell Township, Jackson County

Information herein deemed reliable but not guaranteed

Building Type	Barn, General Purpose	Barn, General Purpose	Utility Building	Hog Shed	
Year Built					
Class/Construction	D,Frame	D,Pole	D,Pole	D,Pole	
Quality/Exterior	Low Cost	Low Cost	Low Cost	Fair (No Rates)	
Base Rate/SF	12.20	10.10	4.45	0.00	
# of Walls, Perimeter	4 Wall , 210	4 Wall , 152	4 Wall , 92	4 Wall , 132	
Perimeter Mult.	X 1.023 = 12.48	X 1.084 = 10.95	X 1.242 = 5.53	X 1.179 = 0.00	
Height	10	10	8	8	
Story Height Mult.	X 1.000 = 12.48	X 1.000 = 10.95	X 0.963 = 5.32	X 0.963 = 0.00	
Heating System	No Heating/Cooling	No Heating/Cooling	No Heating/Cooling	No Heating/Cooling	
Heat Adj./SF					
Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.25 = 15.60	X 1.25 = 13.69	X 1.25 = 6.65	X 1.25 = 0.00	
Final Rate/SF	$15.60	$13.69	$6.65	$0.00	
Length/Width/Area	75 x 30 = 2250	50 x 26 = 1300	26 x 20 = 520	48 x 18 = 864	
Cost New	$ 35,102	$ 17,791	$ 3,460	$	
Phy./Func./Econ. %Good	51/100/100 51.0	40/100/100 40.0	62/100/100 62.0	20/100/100 20.0	
Depreciated Cost	$ 17,902	$ 7,116	$ 2,145	$	
+ Unit-In-Place Items	$	$	$	$	
Description, Size X Rate X %Good = Cost Itemized ->\ Unit-In-Place ->\ Items ->					
E.C.F.	X 0.90	X 0.90	X 0.90	X 0.90	
Est. True Cash Value	$ 13,680	$ 6,405	$ 1,930	$	
Comments:					

Total Estimated True Cash Value of Agricultural Improvements / This Card: 22015 / All Cards: 22015

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-13-301-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 04/02/2011

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
ARNOLD RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD PO BOX
JACKSON MI 49202

Description
THE S 5A OF E 1/2 OF SW 1/4 OF NW 1/4 ALSO W 1/2 OF SW 1/4 EXC THSREFROM THE S 7 RDS OF W 6 RDS THEREOF FOR SCHOOL SITE. SEC 13 T4S R2E

Comments/Influences

Class: Agricultural Vaca | Zoning: RES
School: District 38040
P.R.E. 100% / /
Map #:
2011 Est TCV 351,357

Building Permit(s)	Date	Number	Status

X Improved | Vacant

Public Improvements

X	Dirt Road
	Gravel Road
	Paved Road
	Storm Sewer
	Sidewalk
	Water
	Sewer
	Electric
	Gas
	Curb
	Street Lights
	Standard Utilities
	Underground Utils.

Topography of Site

	Level
	Rolling
	Low
X	High
	Landscaped
	Swamp
	Wooded
	Pond
	Waterfront
	Ravine
	Wetland
	Flood Plain

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Rate Table +40 - 80 ACRES	63.36 Acres		3750		100			237,600
Rate Table BUILDING SITE	1.81 Acres		12500		100			22,625
Rate Table WOODS- 10-40 AC	15.50 Acres		3750		100			58,125
Rate Table PASTURE- 10-40A	4.08 Acres		3200		100			13,056
	84.75 Total Acres						Total Est. Land Value =	331,406

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Who	When	What
JG	04/02/2011	Data Ent
JG	04/02/2011	Inspecte

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2011	165,100		165,100			50,072C
2010	157,500	9,120	166,620			50,072C
2009	157,500	9,120	166,620			50,223C
2008	156,130	8,510	164,640			48,107C

Information herein deemed reliable but not guaranteed

Building Type	Barn, General Purpose	Barn, General Purpose	Utility Building		
Year Built					
Class/Construction	D,Frame	D,Pole	D,Pole		
Quality/Exterior	Low Cost	Low Cost	Low Cost		
Base Rate/SF	12.20	10.10	4.45		
# of Walls, Perimeter	4 Wall , 210	4 Wall , 92	4 Wall , 92		
Perimeter Mult.	X 1.023 = 12.48	X 1.242 = 12.54	X 1.242 = 5.53		
Height	10	10	8		
Story Height Mult.	X 1.000 = 12.48	X 1.000 = 12.54	X 0.963 = 5.32		
Heating System	No Heating/Cooling	No Heating/Cooling	No Heating/Cooling		
Heat Adj./SF					
Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.25 = 15.60	X 1.25 = 15.68	X 1.25 = 6.65		
Final Rate/SF	$15.60	$15.68	$6.65		
Length/Width/Area	75 x 30 = 2250	20 x 26 = 520	26 x 20 = 520		
Cost New	$ 35,102	$ 8,154	$ 3,460		
Phy./Func./Econ. %Good	50/100/100 50.0	60/100/100 60.0	60/100/100 60.0		
Depreciated Cost	$ 17,551	$ 4,892	$ 2,076		
- Unit-In-Place Items	$	$	$		
Description, Size X Rate X %Good = Cost Itemized ->\ Unit-In-Place ->\ Items ->					
E.C.F.	X 0.90	X 0.90	X 0.90		
Est. True Cash Value	$ 13,660	$ 4,403	$ 1,868		
Comments:					
Total Estimated True Cash Value of Agricultural Improvements / This Card: 19951 / All Cards: 19951					

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-13-301-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 03/31/2010

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
ARNOLD RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD PO BOX
JACKSON MI 49202

Description
THE S 5A OF E 1/2 OF SW 1/4 OF NW 1/4
ALSO W 1/2 OF SW 1/4 EXC THEREFROM THE S
7 RDS OF W 6 RDS THEREOF FOR SCHOOL SITE.
SEC 13 T4S R2E

Comments/Influences

Class: Agricultural Vaca Zoning: RES
School: District 38040
P.R.E. 100% / /
Map #:
2010 Est TCV 333,240

Building Permit(s)	Date	Number	Status

X Improved | | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who When What

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Acreage Table 'A'			84.750 Acres		2065	180		315,000
			84.75 Total Acres		Total Est. Land Value =			315,000

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2010	157,500	9,120	166,620			50,072C
2009	157,500	9,120	166,620			50,223C
2008	156,130	8,510	164,640			48,107C
2007	160,245	8,512	168,757			47,026C

The Equalizer. Copyright (c) 1999 - 2000. Licensed to: Norvell Township, Jackson County

Information herein deemed reliable but not guaranteed

Building Type	Barn, General Purpose				
Year Built					
Class/Construction	D,Frame				
Quality/Exterior	Average				
Base Rate/SF	13.57				
# of Walls, Perimeter	4 Wall , 0				
Perimeter Mult.	X 1.000 = 13.57				
Height					
Story Height Mult.	X 0.946 = 12.84				
Heating System	No Heating/Cooling				
Heat Adj./SF					
Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.20 = 15.40				
Final Rate/SF	$15.40				
Length/Width/Area	0 x 0 = 0				
Cost New	$				
Phy./Func./Econ. %Good	96/100/100 96.0				
Depreciated Cost	$				
+ Unit-In-Place Items	$				
Description, Size X Rate X %Good = Cost Itemized ->\ Unit-In-Place ->\ Items ->					
E.C.F.	X 1.20				
Est. True Cash Value	$ 18,240				
Comments:					
Total Estimated True Cash Value of Agricultural Improvements / This Card: 18240 / All Cards: 18240					

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-13-301-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 03/10/2009

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
ARNOLD RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD PO BOX
JACKSON MI 49202

Legal Description
THE S 5A OF E 1/2 OF SW 1/4 OF NW 1/4
ALSO W 1/2 OF SW 1/4 EXC THEREFROM THE S
7 RDS OF W 6 RDS THEREOF FOR SCHOOL SITE.
SEC 13 T4S R2E

Comments/Influences

Class: Agricultural Vaca Zoning: RES
School: District 38040
P.R.E. 100% / /
Map #:
2009 Est TCV 333,240

Building Permit(s)	Date	Number	Status

X Improved | | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who When What

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Acreage Table 'A'			84.750 Acres		2065	180		315,000
			84.75 Total Acres		Total Est. Land Value =			315,000

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2009	157,500	9,120	166,620			50,223C
2008	156,130	8,510	164,640			48,107C
2007	160,245	8,512	168,757			47,026C
2006	117,375	36,527	153,902			45,349C

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Information herein deemed reliable but not guaranteed

Building Type	Barn, General Purpose				
Year Built					
Class/Construction	D,Frame				
Quality/Exterior	Average				
Base Rate/SF	13.57				
# of Walls, Perimeter	4 Wall , 0				
Perimeter Mult.	X 1.000 = 13.57				
Height					
Story Height Mult.	X 0.946 = 12.84				
Heating System	No Heating/Cooling				
Heat Adj./SF					
Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.20 = 15.40				
Final Rate/SF	$15.40				
Length/Width/Area	0 x 0 = 0				
Cost New	$				
Phy./Func./Econ. %Good	96/100/100 96.0				
Depreciated Cost	$				
+ Unit-In-Place Items	$				
Description, Size X Rate X %Good = Cost Itemized ->\ Unit-In-Place ->\ Items ->					
E.C.F.	X 1.20				
Est. True Cash Value	$ 18,240				
Comments:					

Total Estimated True Cash Value of Agricultural Improvements / This Card: 18240 / All Cards: 18240

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-13-301-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 05/14/2008

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
ARNOLD RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD PO BOX
JACKSON MI 49202

Legal Description
THE S 5A OF E 1/2 OF SW 1/4 OF NW 1/4
ALSO W 1/2 OF SW 1/4 EXC THEREFROM THE S
7 RDS OF W 6 RDS THEREOF FOR SCHOOL SITE.
SEC 13 T4S R2E

Comments/Influences

Class: Agricultural Vaca Zoning: RES
School: District 38040
P.R.E. 100% / /
Map #:
2008 Est TCV 329,279

Building Permit(s)	Date	Number	Status

X Improved | | Vacant

Public Improvements

- [ ] Dirt Road
- [ ] Gravel Road
- [ ] Paved Road
- [ ] Storm Sewer
- [ ] Sidewalk
- [ ] Water
- [ ] Sewer
- [ ] Electric
- [ ] Gas
- [ ] Curb
- [ ] Street Lights
- [ ] Standard Utilities
- [ ] Underground Utils.

Topography of Site

- [ ] Level
- [ ] Rolling
- [ ] Low
- [ ] High
- [ ] Landscaped
- [ ] Swamp
- [ ] Wooded
- [ ] Pond
- [ ] Waterfront
- [ ] Ravine
- [ ] Wetland
- [ ] Flood Plain

Who When What

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Acreage Table 'A'			84.750 Acres		2047	180		312,255
			84.75 Total Acres				Total Est. Land Value =	312,255

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2008	156,130	8,510	164,640			48,107C
2007	160,245	8,512	168,757			47,026C
2006	117,375	36,527	153,902			45,349C
2005	89,575	58,422	147,997			43,901C

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Information herein deemed reliable but not guaranteed

Building Type	Barn, General Purpose				
Year Built					
Class/Construction	D,Frame				
Quality/Exterior	Average				
Base Rate/SF	13.57				
# of Walls, Perimeter	4 Wall , 0				
Perimeter Mult.	X 1.000 = 13.57				
Height					
Story Height Mult.	X 0.946 = 12.84				
Heating System	No Heating/Cooling				
Heat Adj./SF					
Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.20 = 15.40				
Final Rate/SF	$15.40				
Length/Width/Area	0 x 0 = 0				
Cost New	$				
Phy./Func./Econ. %Good	96/100/100 96.0				
Depreciated Cost	$				
+ Unit-In-Place Items	$				
Description, Size X Rate X %Good = Cost Itemized ->\ Unit-In-Place ->\ Items ->					
E.C.F.	X 1.12				
Est. True Cash Value	$ 17,024				
Comments:					

Total Estimated True Cash Value of Agricultural Improvements / This Card: 17024 / All Cards: 17024

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-13-301-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 05/21/2007

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address

ARNOLD RD

Owner's Name/Address

GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD PO BOX
JACKSON MI 49202

Legal Description

THE S 5A OF E 1/2 OF SW 1/4 OF NW 1/4
ALSO W 1/2 OF SW 1/4 EXC THEREFROM THE S
7 RDS OF W 6 RDS THEREOF FOR SCHOOL SITE.
SEC 13 T4S R2E

Comments/Influences

Class: Agricultural Vaca Zoning: RES

School: District 38040

P.R.E. 100% / /

Map #:

2007 Est TCV 337,514

Building Permit(s)	Date	Number	Amount

X Improved | | Vacant

Public Improvements

	Dirt Road
	Gravel Road
	Paved Road
	Storm Sewer
	Sidewalk
	Water
	Sewer
	Electric
	Gas
	Curb
	Street Lights
	Standard Utilities
	Underground Utils.

Topography of Site

	Level
	Rolling
	Low
	High
	Landscaped
	Swamp
	Wooded
	Pond
	Waterfront
	Ravine
	Wetland
	Flood Plain

Who When What

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Acreage Table 'A'		84.750 Acres	2101	180				320,490
		84.75 Total Acres			Total Est. Land Value =			320,490

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2007	160,245	8,512	168,757			47,026C
2006	117,375	36,527	153,902			45,349C
2005	89,575	58,422	147,997			43,901C
2004	85,425	57,054	142,479			42,914C

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Information herein deemed reliable but not guaranteed

Building Type	Barn, General Purpose				
Year Built					
Class/Construction	D,Frame				
Quality/Exterior	Average				
Base Rate/SF	13.57				
# of Walls, Perimeter	4 Wall , 0				
Perimeter Mult.	X 1.000 = 13.57				
Height					
Story Height Mult.	X 0.946 = 12.84				
Heating System	No Heating/Cooling				
Heat Adj./SF					
Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.20 = 15.40				
Final Rate/SF	$15.40				
Length/Width/Area	0 x 0 = 0				
Cost New	$				
Phy./Func./Econ. %Good	96/100/100 96.0				
Depreciated Cost	$				
+ Unit-In-Place Items	$				
Description, Size X Rate X %Good = Cost Itemized ->\ Unit-In-Place ->\ Items ->					
E.C.F.	X 1.12				
Est. True Cash Value	$ 17,024				
Comments:					

Total Estimated True Cash Value of Agricultural Improvements / This Card: 17024 / All Cards: 17024

Information herein deemed reliable but not guaranteed

FARM ASSESSMENT RECORD

000-20-14-400-001-00

COU 000-20-14-400-001-00
TOW GLYNN TROLZ & ASSOC INC
OWI 3460 ANN ARBOR RD
DESC JACKSON MI 49204
SECT

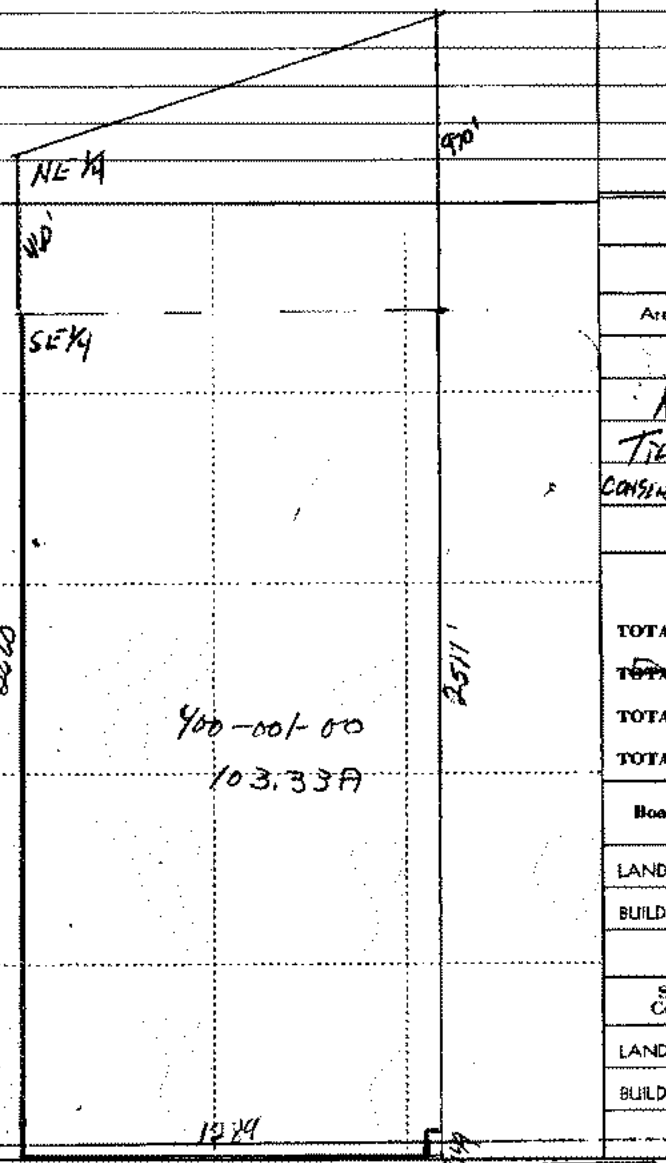
PHYSICAL AND ECONOMIC FACTORS

(name) _____ miles
_____ miles
_____ miles

☐ Electricity ☐ Telephone ☐ Gas Line

Insp Jane 9/30/11

3460 Ann Arbor Rd
Jackson, Mi 49204



Type	Class	Acres
Cropland and untillable pasture	1	
	2	
	3	
	4	

FRUIT

Type	Acres or No.	Age	Rate	Total
(81)	103.33		$	$
	78.46			
	23.87			1
	1			
				1
		P		

Total Fruit $

LAND VALUE

Area No.	No. Acres	Value/A.	Total
	103.33	$	$
RW -	.98	—	
TILLABLE	78.48		
CONSERVATION	23.87		

Total Land $

SUMMARY OF APPRAISAL

TOTAL LAND . . . . . $
~~TOTAL FRUIT~~ 1
TOTAL BUILDINGS. . . . . _____
TOTAL APPRAISED VALUE . . . . . $ (91)

Board of Review	19 77	19 78	19 79	19 80
LAND	33,000	34,000	36,000	38,800
BUILDINGS				
Total	81	82	87	88
State Tax Commission	~~45,000~~	45,250	44,000	46,300
LAND	89			
BUILDINGS		90	91	9
Total	52,000	48,000	✓	1/5

1. Type	
✓	Single Family
2. Frame	
✓	Wood
3. Exterior	
	Wood
✓	Aluminum
	Brick
	Block
4. Roof	
	Hip
✓	Gable
	Front Overhang
	Other Overhang
	Eavestrough
	Chimney Type:
	Brick / Block
	Stone / Metal
✓	Asphalt Shingles
5. Windows	
	Many / Few
	Large / Small
	Wood Sash
	Metal Sash
	Double Hung
	Hor. Sliding
	Double Glass
	Complete Trim
	No Inside Trim
	Storms & Scr.
6. Year Built:	
7. Year Remod.	
8. Number Rooms	
	Basement
	1st Floor
	2nd Floor
	Baths
9. Insulation	
	Ceiling
	Entire
	None

10. Floor Support	
	Joists " x ", " o.c.
	Unsupported Length ft.
	Sill Plate: ☐ Yes ☐ No
	Diag. Sub-Floor " x "
	Ply. Sub-Floor " x "
	Center Support
11. Basement & Foundation	
	Crawl Space s.f.
	Slab House s.f.
	Basement s.f.
	Height to Joists ft.
	Concrete Block "
	Concrete Walls "
	Concrete Floor
	Asphalt Tile s.f.
	Recreation Room s.f.
12. Heating & Air Conditioning	
✓	Gas - Forced Warm Air LP
	Oil - Forced Warm Air
	Gas / Oil / Coal
	Wall Fur. / Floor Fur.
	Stove or Space Heat
	Steam Radiators
	Forced Warm Water
	AIR CONDITIONER tons
	FIREPLACE ft.
13. Interior	
	Trim & Decoration:
	Elab. / Ord. / Min.
	Size of Closets:
	Large / Ord. / Small
	Number of Closets:
	Many / Ord. / Few
	No. & Qual. Electric Fixtures:
	Ex. / Ord. / Min.
	No. Electric Outlets:
	Many / Ord. / Few
	Foyer
	Kit. Fl.
	Other Fl.
	Drywall
	Plaster
	Coved Ceilings
	Paneled Wainscot
	Hardware Qual.

14. Plumbing	
1	No. of Baths $
	Cer. Tile Walls
	Cer. Tile Floor
	Plastic Tile Walls
	Extra Stool
	Extra Wash Bowl
	Water Heater:
	Gals. / Gas / Elec.
15. Built-In Items	
	Oven Range $
	Disposal
	Hood & Fan
	Dishwasher
	Refrigerator
	Incinerator
	Vanities
	Cupboard Length
	Cupboard Quality

16. Garage	
	Year Built
	Attached / Separate
	Cars / Condition
	Wide / Deep
	Walls
	Floor
	Doors
	Common Wall
	Other Walls
	Ceiling

17. Porches		
Wide	Deep	Type
6	5	CPP

Priced by
Date
Checked By
Date

CLASS D Size for Rates 1053

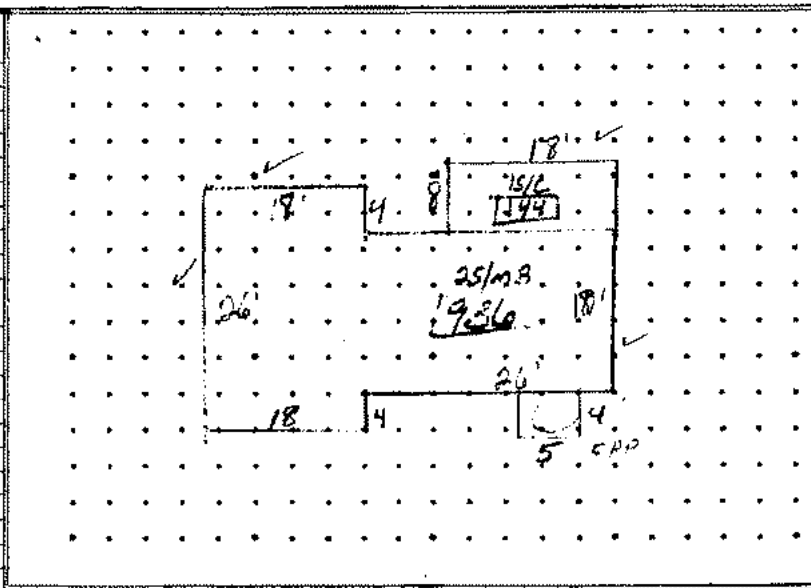
Typical Classes of Other Houses in this Neighborhood

Neighborhood is ☐ Improving ☐ Stable ☐ Declining

Condition for Age

Effective Age

25/S 43.22 — 15/S 68.41
— M.S. 2.00 — Ord. 5.74
41.22 — 23.12



ITEM OR NO. STORIES	SQUARE FEET	UNIT COST	BASE VALUE	DEPR. & OBSOL. % GOOD	DEPR. VALUE
25/MS	8[illegible]	$	$		$
15/C	144	[illegible]			
# 16	20				

Total Depr. Value $

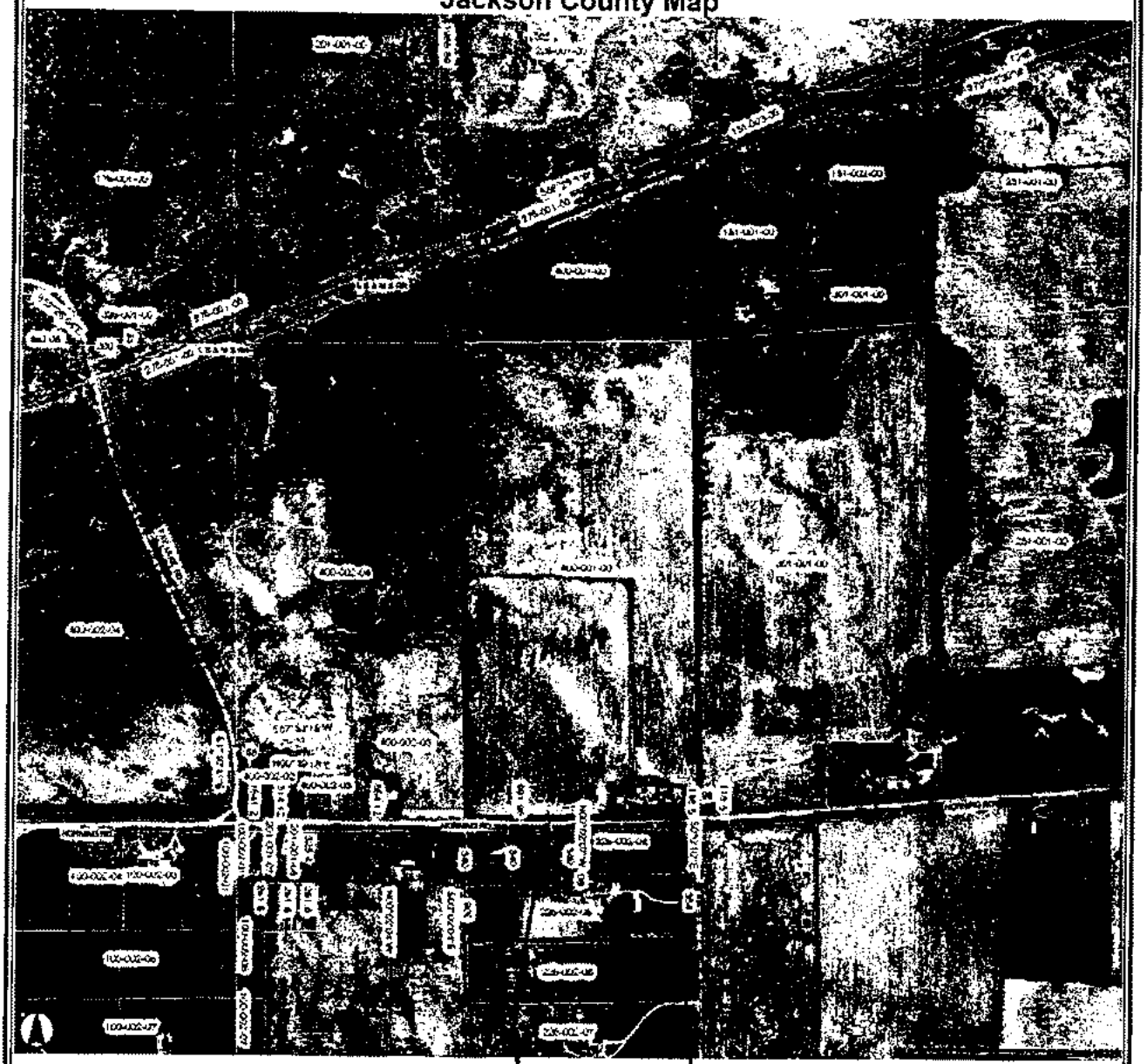
Econ. Cond. Factor x %

True Cash Value $

090-30-11-400-501-00

Jackson County GIS - Interactive Mapping Application

Jackson County Map



Legend

- Remonuments
- Census 2000 Urban Areas
- Census 2000 Blocks
- Census 2000 Block Groups
- Census 2000 Tracts
- Major Road
- Section
- Quarter Section
- School
- Polling Locations
- Parcel

Reference Line

- Condominium Reference Line
- Landlock
- Parcel Reference Line
- Subdivision Reference Line
- Village Reference Line

Boundary

- Condominium
- Drain Center Line
- Drain Easement
- Highway Right of Way
- Hydrology
- Railroad Right of Way
- Right of Way Easement
- Road Right of Way
- Subdivision
- Utility Easement
- Vacated Right of Way

Disclaimer: Jackson County makes no representation, warranty or guarantee as to the content, accuracy, currency or completeness of the information provided. Jackson County explicitly disclaims any representations, warranties and guarantees, including, without limitation, the implied warranties of merchantability and suitability.

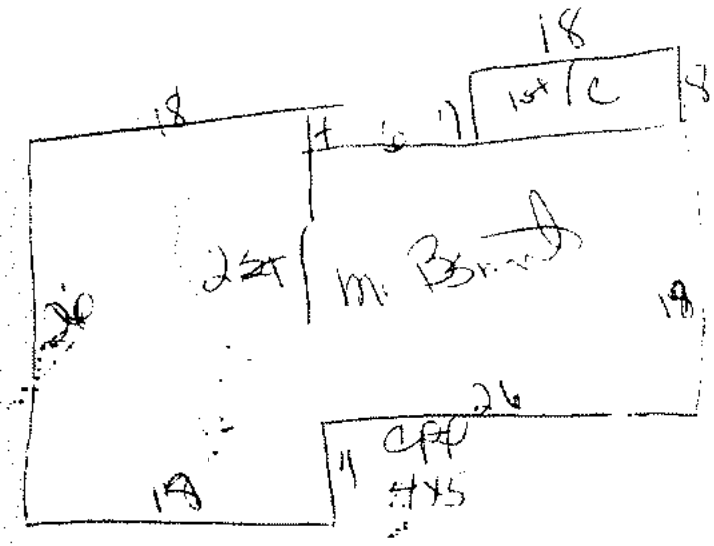
Tillable - 58.6
Brush - 20
L Woods - 19.68
Swamp 2.48

Site - 2.26 A

103.33 A

18623 Herring Rd

No address Needs house


18
18
1st/C
8
7
6
2st
m. Bsmt
18
26
26
11
4x5
18

FARM ASSESSMENT RECORD

COUNTY
TOWNSHIP Norvell
OWNER Glynn Troltz & Assoc.
DESCRIPTION CODE No.
SECTION TOWN RANGE

20-14-276-001 ✓
400-001 ✓
201-001 ✓

PHYSICAL AND ECONOMIC FACTORS

Type of Road
Trading Center (name) miles
Market (name) miles
School (type) miles
☐ Electricity ☐ Telephone ☐ Gas Line

T14-10B, T14-2, T14-3C ✓
✓ 103.33A 117±A

FRUIT

Type	Acres or No.	Age	Rate	Total
220.33±			$	$
Hega	70		100	70
HW	20		75	15
WiW	33.33		50	16.67
Wet	94		.25	23.5
Road	3		0	0
			Carrier	125.17

Total Fruit $

LAND VALUE

Area No.	No. Acres	Value/A.	Total
Carrier	125.17	$ 700	$ 87619

Total Land $

SUMMARY OF APPRAISAL

W+J 250

TOTAL LAND . . . . . $
TOTAL FRUIT . . . . . .
TOTAL BUILDINGS. 18578
TOTAL APPRAISED VALUE . . . . . $ 106747

Board of Review	19 78	19	19	19
LAND				
BUILDINGS				
Total	$49,400			46.28
State Tax Commission				
LAND				
BUILDINGS				
Total				

1. Type
- [x] Single Family

2. Frame
- [x] Wood

3. Exterior
- [x] Aluminum

4. Roof
- [x] Gable
- [x] Asphalt Shingles

5. Windows
- Many / Few
- Large / Small
- Wood Sash
- Metal Sash
- Double Hung
- Hor. Sliding
- Double Glass
- Complete Trim
- No Inside Trim
- Storms & Scr.

6. Year Built:

7. Year Remod.

8. Number Rooms
- Basement
- 1st Floor
- 2nd Floor
- Baths

9. Insulation
- Ceiling
- Entire
- None

10. Floor Support
- Joists " x ", " o.c.
- Unsupported Length ft.
- Sill Plate: ☐ Yes ☐ No
- Dbg. Sub-Floor " x "
- Ply. Sub-Floor " x "
- Center Support

11. Basement & Foundation
- Crawl Space s.f.
- Slab House s.f.
- Basement s.f.
- Height to Joists ft.
- Concrete Block "
- Concrete Walls "
- Concrete Floor
- Asphalt Tile s.f.
- Recreation Room s.f.

12. Heating & Air Conditioning
- [x] Gas - Forced Warm Air
- [x] Oil - Forced Warm Air
- Gas / Oil / Coal
- Wall Fur. / Floor Fur.
- Stove or Space Heat
- Steam Radiators
- Forced Warm Water
- AIR CONDITIONER tons
- FIREPLACE ft.

13. Interior
- Trim & Decoration: Elab. / Ord. / Min.
- Size of Closets: Large / Ord. / Small
- Number of Closets: Many / Ord. / Few
- No. & Qual. Electric Fixtures: Ex. / Ord. / Min.
- No. Electric Outlets: Many / Ord. / Few
- Foyer
- Kit. Fl.
- Other Fl.
- Drywall
- Plaster
- Coved Ceilings
- Paneled Wainscot
- Hardware Qual.

14. Plumbing
- No. of Baths 1
- Cer. Tile Walls
- Cer. Tile Floor
- Plastic Tile Walls
- Extra Stool
- Extra Wash Bowl
- Water Heater: Gals. / Gas / Elec.

15. Built-In Items
- Oven Range
- Disposal
- Hood & Fan
- Dishwasher
- Refrigerator
- Incinerator
- Vanities
- Cupboard Length
- Cupboard Quality

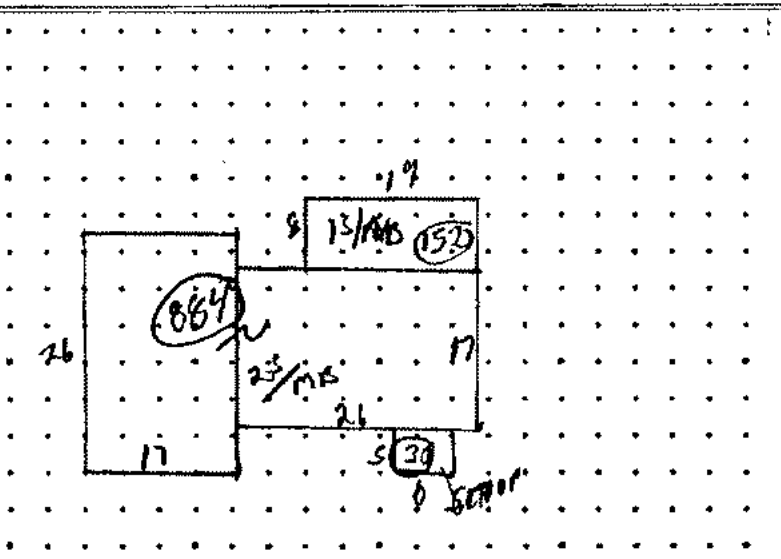
16. Garage
- Year Built
- Attached / Separate
- Cars / Condition
- Wide / Deep
- Walls
- Floor
- Doors
- Common Wall
- Other Walls
- Ceiling

17. Porches

Wide	Deep	Type

Priced by
Date
Checked By
Date

CLASS C-1) Size for Rates 1050
Typical Classes of Other Houses in this Neighborhood
Neighborhood is ☐ Improving ☐ Stable ☐ Declining
Condition for Age
Effective Age 60%



ITEM OR NO. STORIES	SQUARE FEET	UNIT COST	BASE VALUE	DEPR. & OBSOL. % GOOD	DEPR. VALUE
2½/MB	884	$20.15	$ 17,813		$
1½/MB	152	12.85	1832		
Stoop	30	4.19	126		
			19771	.60	11,863

20.89 − .69 = 20.15
13.43 − 1.38 = 12.05

Total Depr. Value $ 11863
Econ. Cond. Factor 2.30 %
True Cash Value $

1. Type
- [ ] Single Family

2. Frame
- [ ] Wood

3. Exterior
- [ ] Wood
- [ ] Aluminum
- [ ] Brick
- [ ] Block

4. Roof
- [ ] Hip
- [ ] Gable
- [ ] Front Overhang
- [ ] Other Overhang
- [ ] Eavestrough
- [ ] Chimney Type:
- [ ] Brick / Block
- [ ] Stone / Metal
- [ ] Asphalt Shingles

5. Windows
- [ ] Many / Few
- [ ] Large / Small
- [ ] Wood Sash
- [ ] Metal Sash
- [ ] Double Hung
- [ ] Hor. Sliding
- [ ] Double Glass
- [ ] Complete Trim
- [ ] No Inside Trim
- [ ] Storms & Scr.

6. Year Built: 46

7. Year Remod. 1966.

8. Number Rooms
- [ ] Basement
- [ ] 1st Floor
- [ ] 2nd Floor
- [ ] Baths

9. Insulation
- [ ] Ceiling
- [ ] Entire
- [ ] None

10. Floor Supports
- Joists 2" x 8" 16" o.c.
- Unsupported Length ft.
- Sill Plate: [ ] Yes [ ] No
- Disg. Sub-Floor " x "
- Ply. Sub-Floor " x "
- Center Support

11. Basement & Foundation
- Crawl Space s.f.
- Slab House s.f.
- Basement s.f.
- Height to Joists ft.
- Concrete Block Rubble
- Concrete Walls
- Concrete Floor
- Asphalt Tile s.f.
- Recreation Room s.f.

12. Heating & Air Conditioning
- [ ] Gas - Forced Warm Air
- [x] Oil - Forced Warm Air
- [ ] Gas / [ ] Oil / [ ] Coal
- [ ] Wall Fur. / [ ] Floor Fur.
- [ ] Stove or Space Heat
- [ ] Steam Radiators
- [ ] Forced Warm Water
- [ ] AIR CONDITIONER tons
- [ ] FIREPLACE ft.

13. Interior
- Trim & Decoration: [ ] Elab. [ ] Ord. [ ] Min.
- Size of Closets: [ ] Large [ ] Ord. [ ] Small
- Number of Closets: [ ] Many [ ] Ord. [ ] Few
- No. & Qual. Electric Fixtures: [ ] Ex. [ ] Ord. [ ] Min.
- No. Electric Outlets: [ ] Many [ ] Ord. [ ] Few
- Foyer
- Kit. Fl.
- Other Fl.
- [ ] Drywall
- [ ] Plaster
- [ ] Coved Ceilings
- [ ] Paneled Wainscot
- Hardware Qual.

14. Plumbing
- [x] No. of Baths 1
- [ ] Cer. Tile Walls
- [ ] Cer. Tile Floor
- [ ] Plastic Tile Walls
- [ ] Extra Stool
- [ ] Extra Wash Bowl

Water Heater:
- [ ] Gals. / [ ] Gas / [ ] Elec.

15. Built-in Items
- [ ] Oven Range $
- [ ] Disposal
- [ ] Hood & Fan
- [ ] Dishwasher
- [ ] Refrigerator
- [ ] Incinerator
- [ ] Vanities
- [ ] Cupboard Length
- [ ] Cupboard Quality

16. Garage
- Year Built
- [ ] Attached / [ ] Separate
- [ ] Cars / [ ] Condition
- [ ] Wide / [ ] Deep
- Walls
- Floor
- Doors
- Common Wall
- Other Walls
- Ceiling

17. Porches

Wide	Deep	Type

Priced by
Date
Checked By
Date

CLASS C0-5 Size for Rates 420

Typical Classes of Other Houses in this Neighborhood

Neighborhood is [ ] Improving [ ] Stable [ ] Declining

Condition for Age

Effective Age 10 Years

Kit. Remodelled 1966
Replacement Cupboards
D.A. Conditioned Cold Air
2BR Fin. Celotex Panel
LP Asphalt Tile in Part
26 Ind Fixtures
19.2 14.91 .63 18.29 15.21 .72 17.60 12.86

16x20 Bsmt Slab Floor
Bsmt 320 x .60 = 192
Footings 60 x .60 = 36
228 x .60 = 137

ITEM OR NO. STORIES	SQUARE FEET	UNIT COST	BASE VALUE	DEPR. & OBSOL. % GOOD	DEPR. VALUE
1½	384	$ 17.60	$ 6766		$
1S	448	12.86	5761		
6x8 Porch	112				
Unfin Bsmt	110	6.80	1550		
Bsmt Rmt					
6x8	67	15.66	1049		
			15,126	60	9076
					2,000
			(69)		2,000
				36 YEARS	11,587
					31,761

Total Depr. Value $ ~~+1.25~~ 1.35 Econ. Cond. Factor x ~~1.20~~ %

True Cash Value $ ~~42,895~~ 11,345

Fence
Cond 1.10

FARM BUILDINGS AND IMPROVEMENTS

(SEE ATTACHED FIELD SHEET FOR RESIDENCE (S)

Avg. Class D

	#1	#2	#3	#4	#5	#6		
BUILDING TYPE	Low Cost D Pole Shed	D-Low Cost	Low Cost D Pole Shed	Low Cost D Pole Bldg	Corn Crib & Storage	Mac. Repair Bldg		
YEAR BUILT	1982-86	?	1978		?	1978		
YEAR REMODELED	—							
DIMENSIONS	30 x 850	28 x 36	20 x 70	20 x 80	23 x 40	40 x 40		
CONSTRUCTION	Pole Frame	Wood	Pole Frame	Pole Frame	Wood	Pole Frame		
FOUNDATION								
EXTERIOR	Metal	Wood	Metal	Metal	Wood	Metal		
ROOF TYPE	—	Gable	Gable	Gable	Gable	Gable		
ROOF COVER	Metal	Wood S.	Metal	Metal	Wood S.	Metal		
~~LOFT~~ FLOOR	Dirt	Wood & Cem	Dirt	Most Dirt	Some Cem	Cement		
BASEMENT FLOOR	—	—						
SQUARE FEET	25,500	1008	1400	1600	920	1600		
UNIT COST Length to width ratio ADJ. FOR SIZE -80%	1.73*	6.95	2.53	6.95	7.14	9.50		
BASE VALUE	44,115	7,006	3,542	11,120	6,569	15,200		
BUILDING ADJUST.								
EQUIPMENT ADJUST.								
ADJUSTED TOTAL								
PHYSICAL COND. %	60%	30%	60%	60%	60%	70%		
DEPRECIATED VALUE	26,469	2,102	2,125	6,672	3,941	10,640	= 51,949	
_____ X _____ COST MOD. E.C.F.	COMPOSITE MULTIPLIER	COMPOSITE MULTIPLIER	COMPOSITE MULTIPLIER	COMPOSITE MULTIPLIER	COMPOSITE MULTIPLIER	COMPOSITE MULTIPLIER	65% COMPOSITE MULTIPLIER	COMPOSITE MULTIPLIER
TRUE CASH VALUE							36,365	

PERSON INTERVIEWED _____

EXAMINED BY . . . . . DATE _____

PRICED BY . . . . . DATE _____

CHECKED BY . . . . . DATE _____

REMARKS

FARM BLDGS. . . . . $ _____

RESIDENCE #1 . . . . . $ _____

RESIDENCE #2 . . . . . $ _____

OTHER . . . . . $ _____

TOTAL TO FRONT OF CARD . . . . . $ _____

000-20-24-200-001-00

Glynn Trolz & Assoc INC
3460 Ann Arbor Rd PO BOX 249
Jackson, Mi 49202

DESCRIPTION

SECTION TOWN RANGE

Insp 3/27/11 JG

FARM ASSESSMENT RECORD

20-24-200-001-00

L 4190

PHYSICAL AND ECONOMIC FACTORS

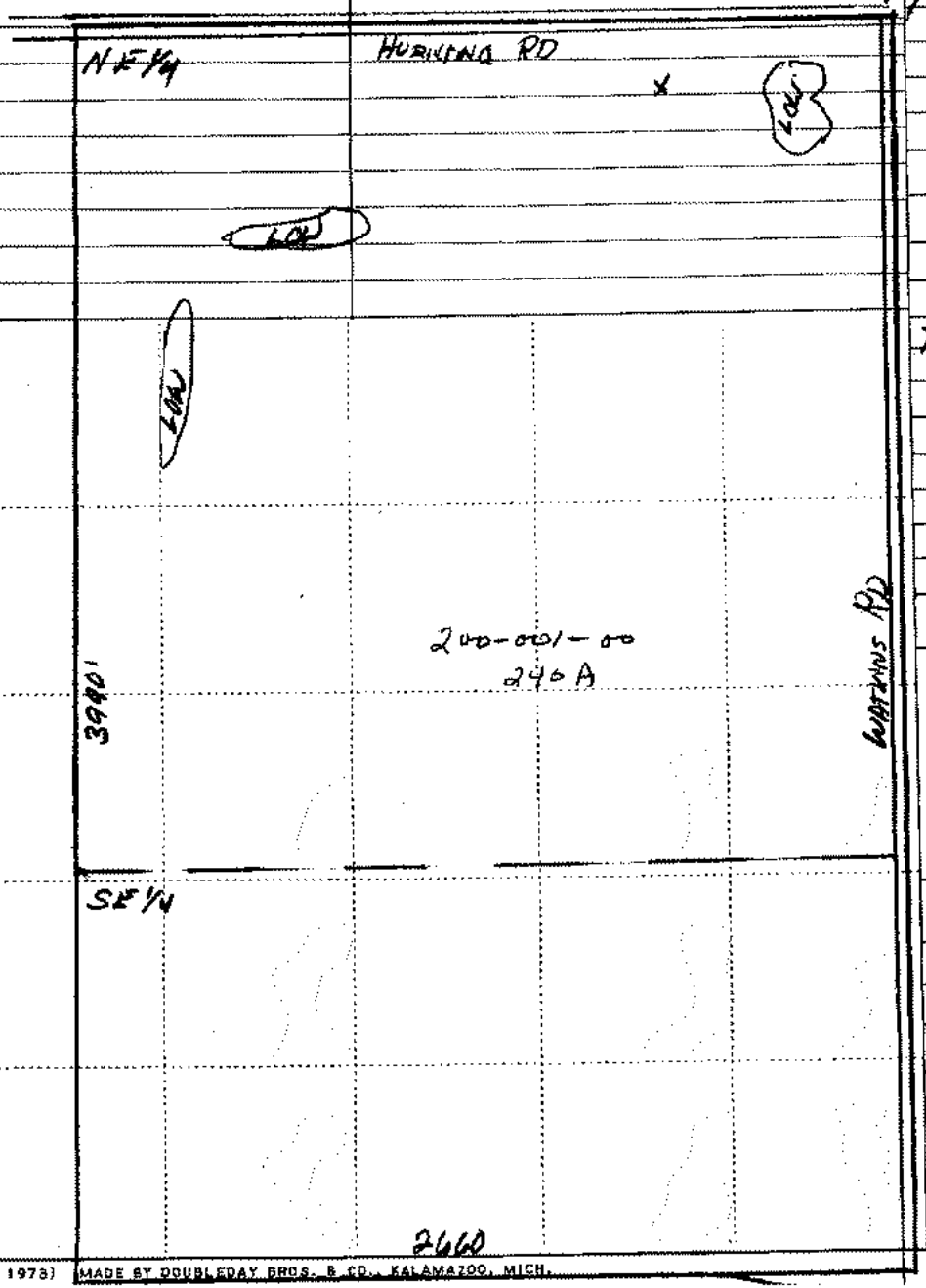
Type of Road BLACK TOP

Trading Center (name) ..... miles

Market (name) ..... miles

School (type) ..... miles

☑ Electricity ☐ Telephone ☐ Gas Line



Type	Class	Acres
Cropland and untillable pasture	1	
	2	
	3	
	4	

FRUIT

Type	Acres or No.	Age	Rate	Total
			$	$

Total Fruit $

LAND VALUE

240 ACRES

Area No.	No. Acres	Value/A.	Total
RW	5.0	$ —	$ —
TILLABLE	230.5	700	161,350
LOW	4.5	200	900

Total Land $ 162,250

SUMMARY OF APPRAISAL

TOTAL LAND . . . . . $

~~TOTAL FRUIT~~ WELLS 2000

TOTAL BUILDINGS 31,169 (91)

TOTAL APPRAISED VALUE . . . . . $ 195,419

Board of Review	1989	1990	1991	1993
LAND	115,00	104,000	97,000	100600
BUILDINGS	94			
Total	100600			
State Tax Commission				
LAND				
BUILDINGS				
Total				

ORDER BY FORM NO. ML M294F (REV. 1973) MADE BY DOUBLEDAY BROS. & CO., KALAMAZOO, MICH.

Building Type	Barn, General Purpose	Barn, General Purpose			
Year Built					
Class/Construction	D,Frame	D,Frame			
Quality/Exterior	Average	Average			
Base Rate/SF	13.57	13.57			
# of Walls, Perimeter	4 Wall , 0	4 Wall , 0			
Perimeter Mult.	X 1.000 = 13.57	X 1.000 = 13.57			
Height					
Story Height Mult.	X 0.946 = 12.84	X 0.946 = 12.84			
Heating System	No Heating/Cooling	No Heating/Cooling			
Heat Adj./SF					
Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.20 = 15.40	X 1.20 = 15.40			
Final Rate/SF	$15.40	$15.40			
Length/Width/Area	0 x 0 = 0	0 x 0 = 0			
Cost New	$	$			
Phy./Func./Econ. %Good	94/100/100 94.0	94/100/100 94.0			
Depreciated Cost	$	$			
+ Unit-In-Place Items	$	$			
Description, Size X Rate X %Good = Cost Itemized ->\ Unit-In-Place ->\ Items ->					
E.C.F.	X 1.20	X 1.20			
Est. True Cash Value	$ 36,000	$			
Comments:					

Total Estimated True Cash Value of Agricultural Improvements / This Card: 36000 / All Cards: 36000

Information herein deemed reliable but not guaranteed

Building Type

X	Single Family
	Mobile Home
	Town Home
	Duplex
	A-Frame

X	Wood Frame

Building Style: 1 1/2 STORY

YearBuilt	Remodeled
0	

Condition for Age: Good

Room List

	Basement
	1st Floor
	2nd Floor
	Bedrooms

(1) Exterior

X	Wood/Shingle
	Aluminum/Vinyl
	Brick
	Insulation

(2) Windows

X	Many	X	Large
	Ave.		Ave.
	Few		Small

	Wood Sash
	Metal Sash
	Vinyl Sash
	Double Hung
	Horiz. Slide
	Casement
	Double Glass
	Patio Doors
	Storms&Screens

(3) Roof

X	Gable		Gambrel
	Hip		Mansard
	Flat		Shed

X	Asphalt Shingle

Chimney: Brick

(3) Roof (cont.)

	Eavestrough
	Insulation
0	Front Overhang
0	Other Overhang

(4) Interior

	Drywall		Plaster
	Paneled		Wood T&G

Trim & Decoration

	Ex	X	Ord	Min

Size of Closets

	Lg	X	Ord	Small

Doors		Solid	X	H.C.

(5) Floors

Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation

Basement: 0 S.F.
Crawl: 0 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement

	Conc. Block
	Poured Conc.
	Stone
	Treated Wood
	Concrete Floor

(9) Basement Finish

	Recreation SF
	Living SF
	Walkout Doors
	No Floor SF

(10) Floor Support

Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling

X	Gas		Oil		Elec.
	Wood		Coal		Steam

X	Forced Air w/o Ducts
	Forced Air w/ Ducts
	Forced Hot Water
	Electric Baseboard
	Elec. Ceil. Radient
	Radiant (in-floor)
	Electric Wall Heat
	Space Heater
	Wall/Floor Furnace
	Forced Heat & Cool
	Heat Pump
	No Heating/Cooling

	Central Air
	Wood Furnace

(12) Electric

Amps Service

No./Qual. of Fixtures

	Ex.	X	Ord.	Min

No. of Elec. Outlets

	Many	X	Ave.	Few

(13) Plumbing

1	Average Pixture(s)
	3 Fixture Bath
	2 Fixture Bath
	Softener, Auto
	Softener, Manual
	Solar Water Heat
	No Plumbing
	Extra Toilet
	Extra Sink
	Separate Shower
	Ceramic Tile Floor
	Ceramic Tile Wains
	Ceramic Tub Alcove
	Vent Fan

(14) Water/Sewer

	Public Water
	Public Sewer
1	Water Well
1	1000 Gal Septic
	2000 Gal Septic

Lump Sum Items:

(15) Built-ins

	Appliance Allow.
	Cook Top
	Dishwasher
	Garbage Disposal
	Bath Heater
	Vent Fan
	Hot Tub
	Unvented Hood
	Vented Hood
	Intercom
	Jacuzzi Tub
	Jacuzzi repl.Tub
	Oven
	Microwave
	Standard Range
	Self Clean Range
	Sauna
	Trash Compactor
	Central Vacuum
	Security System

(15) Fireplaces

	Interior 1 Story
	Interior 2 Story
	2nd/Same Stack
	Two Sided
	Exterior 1 Story
	Exterior 2 Story
	Prefab 1 Story
	Prefab 2 Story
	Heat Circulator
	Raised Hearth
	Wood Stove
	Direct-Vented Ga

Class: CD
Effec. Age: 3
Floor Area:
Total Base Cost: 6,745
Total Cost New : 8,161
Total Depr Cost: 7,917
Estimated T.C.V: 11,717

CntyMult
X 1.210
E.C.F.
X 1.480

(16) Porches/Decks

Area	Type

(17) Garage

Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost

Other Additions/Adjustments	Rate	Size	Cost
(14) Water/Sewer			
Well, 200 Feet	4250.00	1	4,250
1000 Gal Septic	2495.00	1	2,495
Phy/Ab.Phy/Func/Econ/Comb.%Good= 97/100/100/100/97.0,		Depr.Cost =	7,917
ECF (50 AGRICULTURAL)	1.480 => TCV of Bldg:	1 =	11,717

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-24-200-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 03/10/2009

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address

HORNING RD

Owner's Name/Address

GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD.- BOX 249
JACKSON MI 49202

Legal Description

NE 1/4 AND N 1/2 OF SE 1/4. SEC 24 T4S R2E

Comments/Influences

Class: Agricultural Vaca Zoning: RES

School: District 38040

P.R.E. 100% / /

Map #:

2009 Est TCV 919,517 TCV/TFA: 0.00

Building Permit(s)	Date	Number	Status

X Improved | | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who When What

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Rate Table +200 ACRES		212.00 Acres			2500	150		795,000
Rate Table PASTURE- 40+ AC		20.00 Acres			2200	150		66,000
Rate Table WOODS- 40+ ACRE		3.00 Acres			2400	150		10,800
Rate Table ROAD R/W		5.00 Acres			0	100		
		240.00 Total Acres					Total Est. Land Value =	871,800

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2009	435,900	23,860	459,760			146,292C
2008	400,280	28,100	428,380			140,127C
2007	420,000	28,100	448,100			136,977C
2006	300,000	153,472	453,472			132,090C

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Printed to Norvell Township, Jackson County

Information herein deemed reliable but not guaranteed

Building Type	Barn, General Purpose	Barn, General Purpose			
Year Built					
Class/Construction	D,Frame	D,Frame			
Quality/Exterior	Average	Average			
Base Rate/SF	13.57	13.57			
# of Walls, Perimeter	4 Wall , 0	4 Wall , 0			
Perimeter Mult.	X 1.000 = 13.57	X 1.000 = 13.57			
Height					
Story Height Mult.	X 0.946 = 12.84	X 0.946 = 12.84			
Heating System	No Heating/Cooling	No Heating/Cooling			
Heat Adj./SF					
Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.20 = 15.40	X 1.20 = 15.40			
Final Rate/SF	$15.40	$15.40			
Length/Width/Area	0 x 0 = 0	0 x 0 = 0			
Cost New	$	$			
Phy./Func./Econ. %Good	94/100/100 94.0	94/100/100 94.0			
Depreciated Cost	$	$			
+ Unit-In-Place Items	$	$			
Description, Size X Rate X %Good = Cost Itemized ->\ Unit-In-Place ->\ Items ->					
E.C.F.	X 1.20	X 1.20			
Est. True Cash Value	$ 36,000	$			
Comments:					

Total Estimated True Cash Value of Agricultural Improvements / This Card: 36000 / All Cards: 36000

Information herein deemed reliable but not guaranteed

Building Type

X	Single Family
	Mobile Home
	Town Home
	Duplex
	A-Frame

X	Wood Frame

Building Style: 1 1/2 STORY

YearBuilt	Remodeled
0	

Condition for Age: Good

Room List

	Basement
	1st Floor
	2nd Floor
	Bedrooms

(1) Exterior

X	Wood/Shingle
	Aluminum/Vinyl
	Brick
	Insulation

(2) Windows

X	Many Ave. Few	X	Large Ave. Small

	Wood Sash
	Metal Sash
	Vinyl Sash
	Double Hung
	Horiz. Slide
	Casement
	Double Glass
	Patio Doors
	Storms&Screens

(3) Roof

X	Gable Hip Flat		Gambrel Mansard Shed

X	Asphalt Shingle

Chimney: Brick

(3) Roof (cont.)

	Eavestrough
	Insulation
0	Front Overhang
0	Other Overhang

(4) Interior

	Drywall Paneled		Plaster Wood T&G

Trim & Decoration

	Ex	X	Ord		Min

Size of Closets

	Lg	X	Ord		Small

Doors			Solid	X	H.C.

(5) Floors

Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation

Basement: 0 S.F.
Crawl: 0 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement

	Conc. Block
	Poured Conc.
	Stone
	Treated Wood
	Concrete Floor

(9) Basement Finish

	Recreation SF
	Living SF
	Walkout Doors
	No Floor SF

(10) Floor Support

Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling

X	Gas		Oil		Elec.		
	Wood		Coal		Steam		

X	Forced Air w/o Ducts
	Forced Air w/ Ducts
	Forced Hot Water
	Electric Baseboard
	Elec. Ceil. Radient
	Radiant (in-floor)
	Electric Wall Heat
	Space Heater
	Wall/Floor Furnace
	Forced Heat & Cool
	Heat Pump
	No Heating/Cooling

	Central Air
	Wood Furnace

(12) Electric

	Amps Service

No./Qual. of Fixtures

	Ex.	X	Ord.		Min

No. of Elec. Outlets

	Many	X	Ave.		Few

(13) Plumbing

1	Average Fixture(s)
	3 Fixture Bath
	2 Fixture Bath
	Softener, Auto
	Softener, Manual
	Solar Water Heat
	No Plumbing
	Extra Toilet
	Extra Sink
	Separate Shower
	Ceramic Tile Floor
	Ceramic Tile Wains
	Ceramic Tub Alcove
	Vent Fan

(14) Water/Sewer

	Public Water
	Public Sewer
1	Water Well
1	1000 Gal Septic
	2000 Gal Septic

Lump Sum Items:

(15) Built-ins

	Appliance Allow.
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	Dishwasher
	Garbage Disposal
	Bath Heater
	Vent Fan
	Hot Tub
	Unvented Hood
	Vented Hood
	Intercom
	Jacuzzi Tub
	Jacuzzi repl.Tub
	Oven
	Microwave
	Standard Range
	Self Clean Range
	Sauna
	Trash Compactor
	Central Vacuum
	Security System

(15) Fireplaces

	Interior 1 Story
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	2nd/Same Stack
	Two Sided
	Exterior 1 Story
	Exterior 2 Story
	Prefab 1 Story
	Prefab 2 Story
	Heat Circulator
	Raised Hearth
	Wood Stove
	Direct-Vented Ga

Class: CD
Effec. Age: 3
Floor Area:
Total Base Cost: 6,745 CntyMult X 1.210
Total Cost New : 8,161 E.C.F.
Total Depr Cost: 7,917 X 1.390
Estimated T.C.V: 11,004

(16) Porches/Decks

Area	Type

(17) Garage

Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost

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ECF (AGRICULTURAL)	1.390 => TCV of Bldg:	1 =	11,004

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- Paved Road
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- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

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Rate Table WOODS- 40+ ACRE		3.00 Acres			2400	150		10,800
Rate Table ROAD R/W		5.00 Acres			0	100		
		240.00 Total Acres			Total Est. Land Value =			874,800

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Phy./Func./Econ. %Good	92/100/100 92.0	92/100/100 92.0			
Depreciated Cost	$	$			
+ Unit-In-Place Items	$	$			
Description, Size X Rate X %Good = Cost Itemized ->\ Unit-In-Place ->\ Items ->					
E.C.F.	X 1.12	X 1.12			
Est. True Cash Value	$ 44,800	$			
Comments:					

Total Estimated True Cash Value of Agricultural Improvements / This Card: 44800 / All Cards: 44800

Information herein deemed reliable but not guaranteed

Building Type

X	Single Family
	Mobile Home
	Town Home
	Duplex
	A-Frame

X	Wood Frame

Building Style: 1 1/2 STORY

YearBuilt	Remodeled
0	

Condition for Age: Good

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	Horiz. Slide
	Casement
	Double Glass
	Patio Doors
	Storms&Screens

(3) Roof

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X	Asphalt Shingle

Chimney: Brick

(3) Roof (cont.)

	Eavestrough
	Insulation
0	Front Overhang
0	Other Overhang

(4) Interior

	Drywall Paneled		Plaster Wood T&G

Trim & Decoration

	Ex	X	Ord		Min

Size of Closets

	Lg	X	Ord		Small

Doors			Solid	X	H.C.

(5) Floors

Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation

Basement: 0 S.F.
Crawl: 0 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement

	Conc. Block
	Poured Conc.
	Stone
	Treated Wood
	Concrete Floor

(9) Basement Finish

	Recreation SF
	Living SF
	Walkout Doors
	No Floor SF

(10) Floor Support

Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling

X	Gas Wood		Oil Coal		Elec. Steam	

	Forced Air w/o Ducts
X	Forced Air w/ Ducts
	Forced Hot Water
	Electric Baseboard
	Elec. Ceil. Radient
	Radiant (in-floor)
	Electric Wall Heat
	Space Heater
	Wall/Floor Furnace
	Forced Heat & Cool
	Heat Pump
	No Heating/Cooling

	Central Air
	Wood Furnace

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No. of Elec. Outlets

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1	Average Fixture(s)
	3 Fixture Bath
	2 Fixture Bath
	Softener, Auto
	Softener, Manual
	Solar Water Heat
	No Plumbing
	Extra Toilet
	Extra Sink
	Separate Shower
	Ceramic Tile Floor
	Ceramic Tile Wains
	Ceramic Tub Alcove
	Vent Fan

(14) Water/Sewer

	Public Water
	Public Sewer
1	Water Well
1	1000 Gal Septic
	2000 Gal Septic

Lump Sum Items:

(15) Built-ins

	Appliance Allow.
	Cook Top
	Dishwasher
	Garbage Disposal
	Bath Heater
	Vent Fan
	Hot Tub
	Unvented Hood
	Vented Hood
	Intercom
	Jacuzzi Tub
	Jacuzzi repl.Tub
	Oven
	Microwave
	Standard Range
	Self Clean Range
	Sauna
	Trash Compactor
	Central Vacuum
	Security System

(15) Fireplaces

	Interior 1 Story
	Interior 2 Story
	2nd/Same Stack
	Two Sided
	Exterior 1 Story
	Exterior 2 Story
	Prefab 1 Story
	Prefab 2 Story
	Heat Circulator
	Raised Hearth
	Wood Stove
	Direct-Vented Ga

Class: CD
Effec. Age: 4
Floor Area:
Total Base Cost: 6,745 CntyMult
Total Cost New : 8,161 X 1.210 E.C.F.
Total Depr Cost: 7,835 X 1.440
Estimated T.C.V: 11,282

(16) Porches/Decks

Area	Type

(17) Garage

Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost

Other Additions/Adjustments	Rate	Size	Cost
(14) Water/Sewer			
Well, 200 Feet	4250.00	1	4,250
1000 Gal Septic	2495.00	1	2,495
Phy/Ab.Phy/Func/Econ/Comb.%Good= 96/100/100/100/96.0,		Depr.Cost =	7,835
ECF (50 AGRICULTURAL)	1.440 => TCV of Bldg: 1	=	11,282

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-24-200-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 06/27/2007

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address

HORNING RD

Owner's Name/Address

GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD.- BOX 249
JACKSON MI 49202

Legal Description

NE 1/4 AND N 1/2 OF SE 1/4. SEC 24 T4S R2E

Comments/Influences

Class: Agricultural Vaca Zoning: RES

School: District 38040

P.R.E. 100% / /

Map #:

2008 Est TCV 896,082 TCV/TPA: 0.00

Building Permit(s)	Date	Number	Amount

X Improved | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who When What

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Acreage Table 'A'			240.000 Acres		1750	200		840,000
			240.00 Total Acres			Total Est. Land Value =		840,000

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2008	420,000	28,041	448,041			136,977C
2007	420,000	28,100	448,100			136,977C
2006	300,000	153,472	453,472			132,090C
2005		436,073	436,073			127,871C

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Information herein deemed reliable but not guaranteed

Building Type	Barn, General Purpose	Barn, General Purpose			
Year Built					
Class/Construction	D,Frame	D,Frame			
Quality/Exterior	Average	Average			
Base Rate/SF	13.57	13.57			
# of Walls, Perimeter	4 Wall , 0	4 Wall , 0			
Perimeter Mult.	X 1.000 = 13.57	X 1.000 = 13.57			
Height					
Story Height Mult.	X 0.946 = 12.84	X 0.946 = 12.84			
Heating System	No Heating/Cooling	No Heating/Cooling			
Heat Adj./SF					
Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.20 = 15.40	X 1.20 = 15.40			
Final Rate/SF	$15.40	$15.40			
Length/Width/Area	0 x 0 = 0	0 x 0 = 0			
Cost New	$	$			
Phy./Func./Econ. %Good	94/100/100 94.0	94/100/100 94.0			
Depreciated Cost	$	$			
+ Unit-In-Place Items	$	$			
Description, Size X Rate X %Good = Cost Itemized ->\ Unit-In-Place ->\ Items ->					
E.C.F.	X 1.12	X 1.12			
Est. True Cash Value	$ 44,800	$			
Comments:					

Total Estimated True Cash Value of Agricultural Improvements / This Card: 44800 / All Cards: 44800

Information herein deemed reliable but not guaranteed

Building Type
- X Single Family
- Mobile Home
- Town Home
- Duplex
- A-Frame

X Wood Frame

Building Style: 1 1/2 STORY

YearBuilt: 0 | Remodeled:

Condition for Age: Good

Room List
- Basement
- 1st Floor
- 2nd Floor
- Bedrooms

(1) Exterior
- X Wood/Shingle
- Aluminum/Vinyl
- Brick
- Insulation

(2) Windows
- X Many Ave. | X Large Ave.
- Few | Small
- Wood Sash
- Metal Sash
- Vinyl Sash
- Double Hung
- Horiz. Slide
- Casement
- Double Glass
- Patio Doors
- Storms&Screens

(3) Roof
- X Gable | Gambrel
- Hip | Mansard
- Flat | Shed
- X Asphalt Shingle

Chimney: Brick

(3) Roof (cont.)
- Savestrough
- Insulation
- 0 Front Overhang
- 0 Other Overhang

(4) Interior
- Drywall Paneled | Plaster Wood T&G

Trim & Decoration: Ex | X Ord | Min

Size of Closets: Lg | X Ord | Small

Doors: Solid | X H.C.

(5) Floors

Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation

Basement: 0 S.F.
Crawl: 0 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement
- Conc. Block
- Poured Conc.
- Stone
- Treated Wood
- Concrete Floor

(9) Basement Finish
- Recreation SF
- Living SF
- Walkout Doors
- No Floor SF

(10) Floor Support

Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling
- X Gas | Oil | Elec.
- Wood | Coal | Steam
- X Forced Air w/o Ducts
- Forced Air w/ Ducts
- Forced Hot Water
- Electric Baseboard
- Elec. Ceil. Radient
- Radiant (in-floor)
- Electric Wall Heat
- Space Heater
- Wall/Floor Furnace
- Forced Heat & Cool
- Heat Pump
- No Heating/Cooling
- Central Air
- Wood Furnace

(12) Electric

Amps Service

No./Qual. of Fixtures: Ex. | X Ord. | Min

No. of Elec. Outlets: Many | X Ave. | Few

(13) Plumbing
- 1 Average Fixture(s)
- 3 Fixture Bath
- 2 Fixture Bath
- Softener, Auto
- Softener, Manual
- Solar Water Heat
- No Plumbing
- Extra Toilet
- Extra Sink
- Separate Shower
- Ceramic Tile Floor
- Ceramic Tile Wains
- Ceramic Tub Alcove
- Vent Fan

(14) Water/Sewer
- Public Water
- Public Sewer
- 1 Water Well
- 1 1000 Gal Septic
- 2000 Gal Septic

Lump Sum Items:

(15) Built-ins
- Appliance Allow.
- Cook Top
- Dishwasher
- Garbage Disposal
- Bath Heater
- Vent Fan
- Hot Tub
- Unvented Hood
- Vented Hood
- Intercom
- Jacuzzi Tub
- Jacuzzi repl.Tub
- Oven
- Microwave
- Standard Range
- Self Clean Range
- Sauna
- Trash Compactor
- Central Vacuum
- Security System

(15) Fireplaces
- Interior 1 Story
- Interior 2 Story
- 2nd/Same Stack
- Two Sided
- Exterior 1 Story
- Exterior 2 Story
- Prefab 1 Story
- Prefab 2 Story
- Heat Circulator
- Raised Hearth
- Wood Stove
- Direct-Vented Ga

Class: CD
Effec. Age: 3

Floor Area:		CntyMult
Total Base Cost:	6,745	X 1.210
Total Cost New :	8,161	E.C.F.
Total Depr Cost:	7,917	X 1.440
Estimated T.C.V:	11,400	

(16) Porches/Decks

Area	Type

(17) Garage

Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost

Other Additions/Adjustments	Rate	Size	Cost
(14) Water/Sewer			
Well, 200 Feet	4250.00	1	4,250
1000 Gal Septic	2495.00	1	2,495
Phy/Ab.Phy/Func/Econ/Comb.%Good= 97/100/100/100/97.0,		Depr.Cost =	7,917
ECF (50 AGRICULTURAL)	1.440 => TCV of Bldg:	1 =	11,400

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-24-200-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 05/19/2008

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address

HORNING RD

Owner's Name/Address

GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD. - BOX 249
JACKSON MI 49202

Legal Description

NE 1/4 AND N 1/2 OF SE 1/4. SEC 24 T4S R2E

Comments/Influences

Class: Agricultural Vaca | Zoning: RBS

School: District 38040

P.R.B. 100% / /

Map #:

2008 Est TCV 856,750 TCV/TPA: 0.00

Building Permit(s)	Date	Number	Status

X Improved | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who When What

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Rate Table +200 ACRES		222.00 Acres		1750	180			699,300
Rate Table +10 - 20 ACRES		10.00 Acres		5180	180			91,800
Rate Table WOODS		3.00 Acres		1750	180			9,450
Rate Table ROAD R/W		5.00 Acres		0	100			
		240.00 Total Acres			Total Est. Land Value =			800,550

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2008	400,280	28,100	428,380			140,127C
2007	420,000	28,100	448,100			136,977C
2006	300,000	153,472	453,472			132,090C
2005		436,073	436,073			127,871C

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Information herein deemed reliable but not guaranteed

Building Type	Barn, General Purpose	Barn, General Purpose	Barn, General Purpose	Utility Shed, Lean-To	
Year Built					
Class/Construction	D,Frame	D,Frame	D,Pole	D,Pole	
Quality/Exterior	Good	Good	Good	Cheap (No Rates)	
Base Rate/SF	23.25	23.25	19.80	0.00	
# of Walls, Perimeter	4 Wall , 132	4 Wall , 124	4 Wall , 128	4 Wall , 1730	
Perimeter Mult.	X 1.111 = 25.83	X 1.147 = 26.67	X 1.127 = 22.31	X 1.134 = 0.00	
Height	10	10	10		
Story Height Mult.	X 1.000 = 25.83	X 1.000 = 26.67	X 1.000 = 22.31	X 0.946 = 0.00	
Heating System	No Heating/Cooling	No Heating/Cooling	No Heating/Cooling	No Heating/Cooling	
Heat Adj./SF					
Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.25 = 32.29	X 1.25 = 33.33	X 1.25 = 27.89	X 1.25 = 0.00	
Final Rate/SF	$32.29	$33.33	$27.89	$0.00	
Length/Width/Area	26 x 40 = 1040	40 x 22 = 880	40 x 24 = 960	850 x 15 = 12750	
Cost New	$ 33,580	$ 29,335	$ 26,778	$	
Phy./Func./Econ. %Good	51/100/100 51.0	51/100/100 51.0	51/100/100 51.0	31/100/100 31.0	
Depreciated Cost	$ 17,126	$ 14,961	$ 13,657	$	
+ Unit-In-Place Items	$	$	$	$	
Description, Size X Rate X %Good = Cost Itemized ->\ Unit-In-Place ->\ Items ->					
E.C.F.	X 0.90	X 0.90	X 0.90	X 0.90	
Est. True Cash Value	$ 15,413	$ 13,465	$ 12,291	$	
Comments:					

Total Estimated True Cash Value of Agricultural Improvements / This Card: 41169 / All Cards: 41169

Information herein deemed reliable but not guaranteed

Building Type

X	Single Family
	Mobile Home
	Town Home
	Duplex
	A-Frame
X	Wood Frame

Building Style: 1 1/2 STORY

YearBuilt: 0 | Remodeled:

Condition for Age: Good

Room List

	Basement
	1st Floor
	2nd Floor
	Bedrooms

(1) Exterior

X	Wood/Shingle
	Aluminum/Vinyl
	Brick
	Insulation

(2) Windows

X	Many Ave. Few	X	Large Ave. Small

Wood Sash, Metal Sash, Vinyl Sash, Double Hung, Horiz. Slide, Casement, Double Glass, Patio Doors, Storms&Screens

(3) Roof

X	Gable Hip Flat		Gambrel Mansard Shed

X Asphalt Shingle

Chimney: Brick

(3) Roof (cont.)

	Eavestrough
	Insulation
0	Front Overhang
0	Other Overhang

(4) Interior

	Drywall Paneled		Plaster Wood T&G

Trim & Decoration: | Ex | X Ord | | Min |

Size of Closets: | Lg | X Ord | | Small |

Doors: | | Solid | X H.C.

(5) Floors

Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation

Basement: 0 S.F.
Crawl: 0 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement

	Conc. Block
	Poured Conc.
	Stone
	Treated Wood
	Concrete Floor

(9) Basement Finish

	Recreation SF
	Living SF
	Walkout Doors
	No Floor SF

(10) Floor Support

Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling

X	Gas Wood		Oil Coal	Elec. Steam

	Forced Air w/o Ducts
X	Forced Air w/ Ducts
	Forced Hot Water
	Electric Baseboard
	Elec. Ceil. Radient
	Radiant (in-floor)
	Electric Wall Heat
	Space Heater
	Wall/Floor Furnace
	Forced Heat & Cool
	Heat Pump
	No Heating/Cooling

	Central Air
	Wood Furnace

(12) Electric

Amps Service

No./Qual. of Fixtures: | Ex. | X Ord. | Min

No. of Elec. Outlets: | Many | X Ave. | Few

(13) Plumbing

1	Average Fixture(s)
	3 Fixture Bath
	2 Fixture Bath
	Softener, Auto
	Softener, Manual
	Solar Water Heat
	No Plumbing
	Extra Toilet
	Extra Sink
	Separate Shower
	Ceramic Tile Floor
	Ceramic Tile Wains
	Ceramic Tub Alcove
	Vent Fan

(14) Water/Sewer

	Public Water
	Public Sewer
1	Water Well
1	1000 Gal Septic
	2000 Gal Septic

Lump Sum Items:

(15) Built-ins

	Appliance Allow.
	Cook Top
	Dishwasher
	Garbage Disposal
	Bath Heater
	Vent Fan
	Hot Tub
	Unvented Hood
	Vented Hood
	Intercom
	Jacuzzi Tub
	Jacuzzi repl.Tub
	Oven
	Microwave
	Standard Range
	Self Clean Range
	Sauna
	Trash Compactor
	Central Vacuum
	Security System

(15) Fireplaces

	Interior 1 Story
	Interior 2 Story
	2nd/Same Stack
	Two Sided
	Exterior 1 Story
	Exterior 2 Story
	Prefab 1 Story
	Prefab 2 Story
	Heat Circulator
	Raised Hearth
	Wood Stove
	Direct-Vented Ga

Class: CD
Effec. Age:
Floor Area:
Total Base Cost: 5,445
Total Cost New : 6,806
Total Depr Cost: 6,806
Estimated T.C.V: 6,126

CntyMult: X 1.250
E.C.F.: X 0.900

(16) Porches/Decks

Area	Type

(17) Garage

Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost

Other Additions/Adjustments	Rate	Size	Cost
(14) Water/Sewer			
Well, 100 Feet	2550.00	1	2,550
1000 Gal Septic	2895.00	1	2,895
Phy/Ab.Phy/Func/Econ/Comb.%Good=100/100/100/100/100.0,		Depr.Cost =	6,806
ECF (AGRICULTURAL)	0.900 => TCV of Bldg: 1 =		6,126

Information herein deemed reliable but not guaranteed

FARM ASSESSMENT RECORD

000-20-24-301-002-00

CO 000-20-24-301-002-00
TO GLYNN TROLZ & ASSOCIATION INC
OV 3460 ANN ARBOR RD BOX 249
DES JACKSON MI 49202
SEC

PHYSICAL AND ECONOMIC FACTORS

r (name) _____ miles
) _____ miles
_____ miles

☐ Electricity ☐ Telephone ☐ Gas Line

LAWRENCE RD (VACANT) Insp June 4/10/11
LANDLOCKED ACROSS FROM
10790 LAWRENCE RD

3460 Ann Arbor Rd - Box 249
Jackson, Mi. 49202

FRUIT

Type	Acres or No.	Age	Rate	Total
VACANT	.5A		$	$
LOW	.10			
BRUSH	.40A			

Total Fruit $

LAND VALUE

Area No.	No. Acres	Value/A.	Total
	.5000	$ 700	$ 350

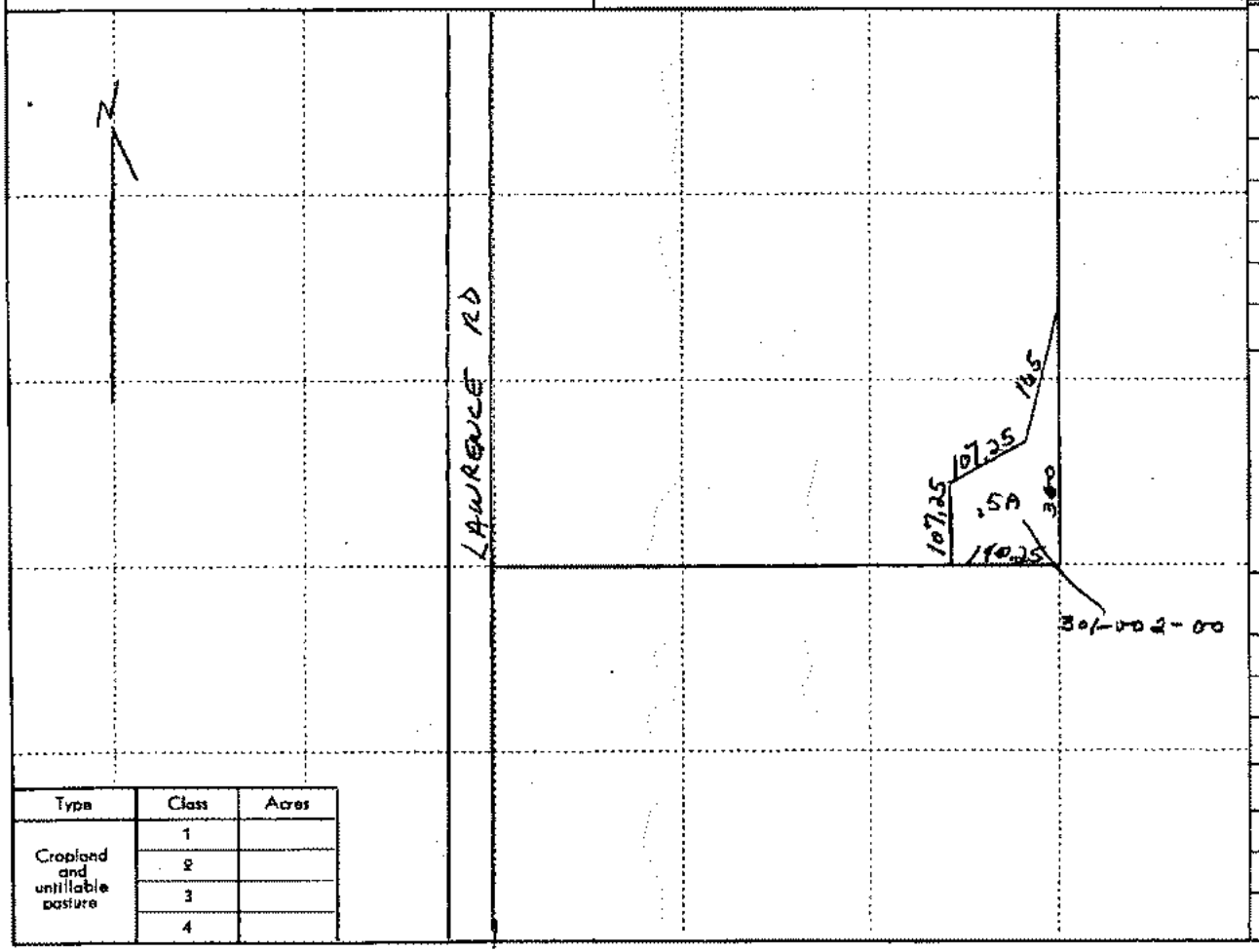
Total Land $

SUMMARY OF APPRAISAL

TOTAL LAND . . . . . $
TOTAL FRUIT . . . . . $
TOTAL BUILDINGS. . . . . $
TOTAL APPRAISED VALUE . . . . . $

Board of Review	1977	1978	1979	1980
LAND	100	100	100	100
BUILDINGS	100	100	100	
Total	81	82	83	
State Tax Commission	89	91		
LAND	700	100		
BUILDINGS				
Total				

Type	Class	Acres
Cropland and untillable pasture	1	
	2	
	3	
	4	



1. Type
- Single Family

2. Frame
- Wood

3. Exterior
- Wood
- Aluminum
- Brick
- Block

4. Roof
- Hip
- Gable
- Front Overhang
- Other Overhang
- Eavestrough
- Chimney Type:
  - Brick | Block
  - Stone | Metal
- Asphalt Shingles

5. Windows
- Many | Few
- Large | Small
- Wood Sash
- Metal Sash
- Double Hung
- Hor. Sliding
- Double Glass
- Complete Trim
- No Inside Trim
- Storms & Scr.

6. Year Built:

7. Year Remod.

8. Number Rooms
- Basement
- 1st Floor
- 2nd Floor
- Baths

9. Insulation
- Ceiling
- Entire
- None

10. Floor Support
- Joists " x " , " o.c.
- Unsupported Length ft.
- Sill Plate: ☐ Yes ☐ No
- Diag. Sub-Floor " x "
- Ply. Sub-Floor " x "
- Center Support

11. Basement & Foundation
- Crawl Space s.f.
- Slab House s.f.
- Basement s.f.
- Height to Joists ft.
- Concrete Block "
- Concrete Walls "
- Concrete Floor
- Asphalt Tile s.f.
- Recreation Room s.f.

12. Heating & Air Conditioning
- Gas - Forced Warm Air
- Oil - Forced Warm Air
- Gas | Oil | Coal
- Wall Fur. | Floor Fur.
- Stove or Space Heat
- Steam Radiators
- Forced Warm Water
- AIR CONDITIONER tons
- FIREPLACE ft.

13. Interior
- Trim & Decoration: Elab. | Ord. | Min.
- Size of Closets: Large | Ord. | Small
- Number of Closets: Many | Ord. | Few
- No. & Qual. Electric Fixtures: Ex. | Ord. | Min.
- No. Electric Outlets: Many | Ord. | Few
- Foyer:
- Kit. Fl.
- Other Fl.
- Drywall
- Plaster
- Coved Ceilings
- Paneled Wainscot
- Hardware Qual.

14. Plumbing
- No. of Baths $
- Cer. Tile Walls
- Cer. Tile Floor
- Plastic Tile Walls
- Extra Stool
- Extra Wash Bowl
- Water Heater: Gals. | Gas | Elec.

15. Built-In Items
- Oven Range $
- Disposal
- Hood & Fan
- Dishwasher
- Refrigerator
- Incinerator
- Vanities
- Cupboard Length
- Cupboard Quality

16. Garage
- Year Built
- Attached | Separate
- Cars | Condition
- Wide | Deep
- Walls
- Floor
- Doors
- Common Wall
- Other Walls
- Ceiling

17. Porches

Wide	Deep	Type

- Priced by
- Date
- Checked By
- Date

CLASS Size for Rates

Typical Classes of Other Houses in this Neighborhood

Neighborhood is ☐ Improving ☐ Stable ☐ Declining

Condition for Age

Effective Age

ITEM OR NO. STORIES	SQUARE FEET	UNIT COST	BASE VALUE	DEPR. & OBSOL. % GOOD	DEPR. VALUE
		$	$		$

Total Depr. Value $ .....

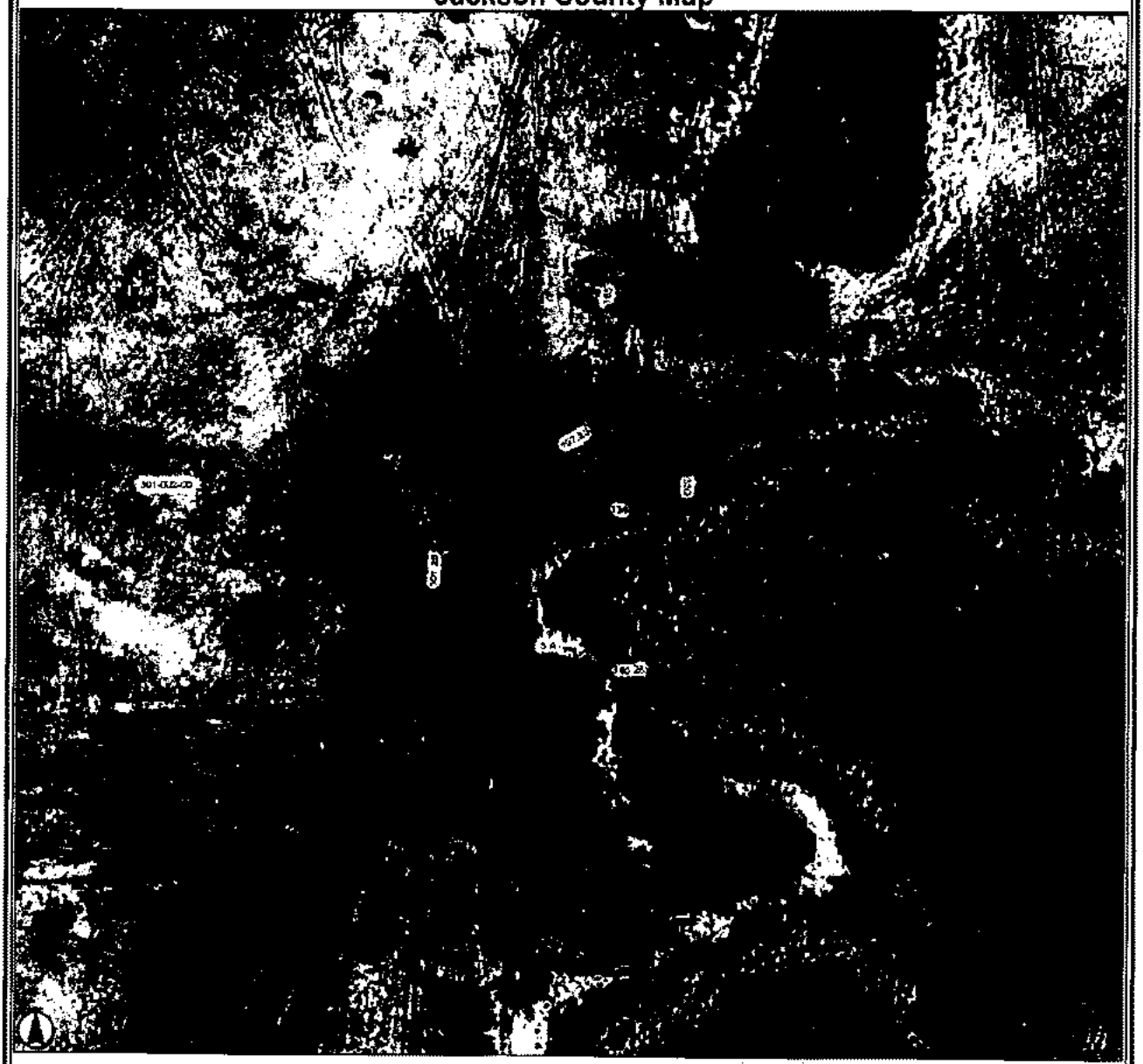
Econ. Cond. Factor x ..... %

True Cash Value $ .....

LAWRENCE RD #000-30-24-301-002-00

Jackson County GIS - Interactive Mapping Application

Jackson County Map



Legend

- Remonuments
- Census 2000 Urban Areas
- Census 2000 Blocks
- Census 2000 Block Groups
- Census 2000 Tracts
- Major Road
- Section
- Quarter Section
- School
- Polling Locations
- Parcel

Reference Line

- Condominium Reference Line
- Landmark
- Parcel Reference Line
- Subdivision Reference Line
- Village Reference Line

Boundary

- Condominium
- Drain Centerline
- Drain Easement
- Highway Right of Way
- Hydrology
- Railroad Right of Way
- Right of Way Easement
- Road Right of Way
- Subdivision
- Utility Easement
- Vacated Right of Way

Disclaimer: Jackson County makes no representation, warranty or guarantee as to the content, accuracy, currency or completeness of the information provided. Jackson County explicitly disclaims any representations, warranties and guarantees, including, without limitation, the implied warranties of merchantability and suitability.

Parcel Number: 000-20-24-301-002-00 Jurisdiction: NORVELL County: JACKSON Printed on 03/10/2009

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
LAWRENCE RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD-BOX 249
JACKSON MI 49202

Legal Description
BEG AT SE COR OF NW 1/4 OF SW 1/4 TH W ALG S 1/8 LN 8.5 RDS TH NLY 6.5 RDS TO A PT DISTANT 8.12S RDS W OF W 1/8 LN TH NELY 6.5 RDS TO A PT DISTANT 2.25 RDS W OF W 1/8 LN TH NELY 10 RDS TO W 1/8 LN TH S ALG W 1/8 LN 20 RDS M/L TO BEG. SEC 24 T4S R2E

Comments/Influences

Class: Residential Vacan | Zoning: RES

School: District 38040

P.R.E. 100% 05/05/2008 Qual. Ag.

Map #:

2009 Est TCV 1,218

Building Permit(s)	Date	Number	Status

	Improved	X	Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who When What

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Acreage Table 'A'			0.050 Acres		24350	100		1,218
			0.05 Total Acres		Total Est. Land Value =			1,218

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2009	610		610			132C
2008	610		610			127C
2007	609		609			125C
2006	301		301			121C

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Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-24-301-002-00 Jurisdiction: NORVELL County: JACKSON Printed on 05/19/2008

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
LAWRENCE RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD-BOX 249
JACKSON MI 49202

Legal Description
BEG AT SE COR OF NW 1/4 OF SW 1/4 TH W ALG S 1/8 LN 8.5 RDS TH NLY 6.5 RDS TO A PT DISTANT 8.125 RDS W OF W 1/8 LN TH NELY 6.5 RDS TO A PT DISTANT 2.25 RDS W OF W 1/8 LN TH NELY 10 RDS TO W 1/8 LN TH S ALG W 1/8 LN 20 RDS M/L TO BEG. SEC 24 T4S R2E

Comments/Influences

Class: Residential Vacan | Zoning: RES

School: District 38040

P.R.E. 100% / /

Map #:

2008 Est TCV 1,218

Building Permit(s)	Date	Number	Status

Improved | X | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

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- Low
- High
- Landscaped
- Swamp
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- Ravine
- Wetland
- Flood Plain

Who When What

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Acreage Table 'A'			0.050 Acres	24350	100			1,218
			0.05 Total Acres		Total Est. Land Value =			1,218

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2008	610		610			127C
2007	609		609			125C
2006	301		301			121C
2005	289		289			118C

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Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-24-301-002-00 Jurisdiction: NORVELL County: JACKSON Printed on 05/02/2012

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
LAWRENCE RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD-BOX 249
JACKSON MI 49202

Description
BEG AT SE COR OF NW 1/4 OF SW 1/4 TH W ALG S 1/8 LN 8.5 RDS TH NLY 6.5 RDS TO A PT DISTANT 8.125 RDS W OF W 1/8 LN TH NELY 6.5 RDS TO A PT DISTANT 2.25 RDS W OF W 1/8 LN TH NELY 10 RDS TO W 1/8 LN TH S ALG W 1/8 LN 20 RDS M/L TO BEG. SEC 24 T4S R2E

Comments/Influences

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Licensed to: Norvell Township, Jackson County

Class: Residential Vacan | Zoning: RES

School: District 38040

P.R.E. 100% 05/05/2008 Qual. Ag.

Map #:

2012 Est TCV 475

Building Permit(s)	Date	Number	Status

Improved | X | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who	When	What
JG	04/10/2011	Data Ent
JG	04/10/2011	Inspecte

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Rate Table SW/NW - 10-40A	0.50 Acres		950	100				475
	0.50 Total Acres				Total Est. Land Value =			475

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2012	240		240			136C
2011	440		440			133C
2010	610		610			131C
2009	610		610			132C

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-24-301-002-00 Jurisdiction: NORVELL County: JACKSON Printed on 03/31/2010

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
LAWRENCE RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD-BOX 249
JACKSON MI 49202

Description
BEG AT SE COR OF NW 1/4 OF SW 1/4 TH W ALG S 1/8 LN 8.5 RDS TH NLY 6.5 RDS TO A PT DISTANT 8.125 RDS W OF W 1/8 LN TH NELY 6.5 RDS TO A PT DISTANT 2.25 RDS W OF W 1/8 LN TH NELY 10 RDS TO W 1/8 LN TH S ALG W 1/8 LN 20 RDS M/L TO BEG. SEC 24 T4S R2E

Comments/Influences

Class: Residential Vacan | Zoning: RES

School: District 38040

P.R.E. 100% 05/05/2008 Qual. Ag.

Map #:

2010 Est TCV 1,218

Building Permit(s)	Date	Number	Status

	Improved	X	Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
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- Standard Utilities
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Topography of Site

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- Pond
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- Ravine
- Wetland
- Flood Plain

Who When What

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	Front	Depth	* Factors * Rate	%Adj.	Reason	Value
Acreage Table 'A'			0.050 Acres		24350	100		1,218
			0.05 Total Acres		Total Est. Land Value =			1,218

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2010	610		610			131C
2009	610		610			132C
2008	610		610			127C
2007	609		609			125C

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Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-24-301-002-00 Jurisdiction: NORVELL County: JACKSON Printed on 06/27/2007

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address

LAWRENCE RD

Owner's Name/Address

GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD-BOX 249
JACKSON MI 49202

Legal Description

BEG AT SE COR OF NW 1/4 OF SW 1/4 TH W ALG S 1/8 LN 8.5 RDS TH NLY 6.5 RDS TO A PT DISTANT 8.125 RDS W OF W 1/8 LN TH NELY 6.5 RDS TO A PT DISTANT 2.25 RDS W OF W 1/8 LN TH NELY 10 RDS TO W 1/8 LN TH S ALG W 1/8 LN 20 RDS M/L TO BEG. SEC 24 T4S R2E

Comments/Influences

Class: Residential Vacan Zoning: RES

School: District 38040

P.R.E. 100% / /

Map #:

2008 Est TCV 1,218

Building Permit(s)	Date	Number	Amount

Improved | X | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
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Who When What

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

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2005	289		289			118C

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Information herein deemed reliable but not guaranteed

Michigan Department of Treasury
T-1063 (6/94)

Issued under P.A. 331 of 1993, or P.A. 312 of 1993.
Filing is required if you wish to receive an exemption.

CLAIM FOR FARMLAND EXEMPTION FROM SOME SCHOOL OPERATING TAXES

Do you need to file this claim?

If you answer "**YES**" to either of these questions, you do NOT need to file this form.

➔ Is the property vacant and classified agricultural?

(Note: Vacant property classified as agricultural is automatically exempt from some school taxes and the changes will be made on your next tax bill.)

➔ Have you already filed the *Homestead Exemption Affidavit* for this property?

If you answered "NO" to both of these questions and the property is used primarily for agricultural purposes but is not classified as agricultural, complete this form and file it with your local unit by **June 1, 1994.**

If your property has a residence or other buildings on it, your assessor may ask you to complete this form.

Section 1. File a separate claim for each qualified parcel.

1. Name of Owner (first, middle, last)
GLYNN TROLZ & ASSOCIATES, INC.

Name of Co-Owner (first, middle, last)

Street Address of Property Claimed
3460 Ann Arbor Rd.

City and State | ZIP Code
Jackson, MI | 49202

Name of Township/City Where Property is Located | County of Property
Norvell | Jackson

Check one: ☒ Township ☐ City

2. Enter below the property tax identification number of the qualified property you are claiming. This number is on your tax bill or your assessment notice. Start at the left and leave any extra spaces blank. Use a full space for any hyphens (-) in the number.

0 0 0 - 2 0 - 2 4 - 3 0 1 - 0 0 2 - 0 0

Section 2: Farmland.

a. If this property is **not** classified as agricultural, is more than 50% of the acreage devoted to an agricultural use? (Skip this question if your property is classified agricultural.) ☐ Yes ☐ No

b. Does this property include any residences occupied by a person who is not involved in the agricultural operation? ☐ Yes ☐ No

c. If the property includes a residence, has the occupant filed a *Homestead Exemption Affidavit* for a different residence? ☐ Yes ☐ No

d. Does this property include any buildings not involved in the agricultural operation? ☐ Yes ☐ No

If you answered 'yes' to items 2b, 2c or 2d, part of your property does not qualify. You must enter a percentage in Section 3.

Section 3: Multi-Purpose Property. *If you answered 'yes' to item 2b, 2c or 2d, give the percentage of the property value that is devoted to agricultural use. Exclude from this percentage the value of any property that does not qualify (see instructions on back). This information is necessary for your township or city to adjust your property taxes properly. (See back for computation.)* ____

Certification: *This affidavit is invalid unless it is signed.*

I certify, under penalty of perjury, that I own (or co-own) the property claimed on this affidavit, that it is qualified agricultural property, and that all information is true to the best of my knowledge.

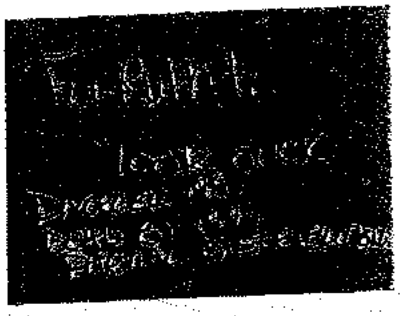
Owner's Signature	Date	Co-Owner's Signature	Date
[signature]	5-26-94		

RECEIVED
9/8/2014

LOOMIS

LOOMIS, EWERT, PARSLEY, DAVIS & GOTTING P.C.

ATTORNEYS AT LAW



JACK C. DAVIS PC
KARL L. GOTTING PLLC
JAMES R. NEAL
KENNETH W. BEALL PLLC
MICHAEL G. OLIVA
CATHERINE A. JACOBS
MICHAEL H. RHODES [1,2]
JEFFREY L. GREEN
JEFFREY S. THEUER[3]
KEVIN J. RORAGEN
RICHARD W. PENNINGS

TED S. ROZEBOOM
MICHAEL F. MATHESON[4]
SARA L. CUNNINGHAM[1]
TRACEY L. LACKMAN
JAMES F. ANDERTON, V[5]
MICHAEL G. STEFANKO[7]
MIEKE V. WEISSERT
LEAH J. BROOKS
WARREN H. KRUEGER, III
ELIZABETH HUSA BRIGGS[6]
DOMINIC R. RIOS

OF COUNSEL:
WILLIAM D. PARSLEY
MICHAEL A. HOLMES
PAULA K. MANIS PLLC[1,4,8]
KELLY REED LUCAS[6]
COLIN W. MAGUIRE

[1] ALSO LICENSED IN OH
[2] ALSO LICENSED IN PA
[3] ALSO LICENSED IN MD
[4] ALSO LICENSED IN IL
[5] ALSO LICENSED IN FL
[6] ALSO LICENSED IN NY
[7] ALSO CPA
[8] EASTWOOD OFFICE

August 28, 2014

Ms. Ruth A. Scott, Assessor of Record
Norvell Township
PO Box 385
Norvell, Michigan 49263-0188

Re: Transfers from Estate of Glynn Trolz, Glynn Trolz and Associates to G.T. Ranch LLC

Dear Ms. Scott:

I am writing this letter to follow through on discussions regarding the tax exemptions for transfers between the above entities.

The following parcels were transferred from the Estate of Glynn A. Trolz to Glynn Trolz and Associates, Inc.:

000-20-12-251-002-00
000-20-12-276-001-00

Those properties were then transferred from Glynn Trolz and Associates to GT Ranch, LLC

In addition, the following parcels were transferred from Glyn Trolz and Associates to GT Ranch, LLC.

000-20-12-101-001-00
000-20-12-176-001-00
000-20-12-251-001-00
000-20-12-251-002-00

000-20-12-376-001-00
000-20-12-376-001-00

000-20-13-151-001-00
000-20-13-151-003-00
000-20-13-201-001-00
000-20-13-251-001-00
000-20-13-301-001-00
000-20-13-400-001-00

000-20-14-201-001-00
000-20-14-276-001-00
000-20-14-400-001-00
000-20-24-200-001-00
000-20-24-301-001-00
000-20-24-301-002-00
000-20-24-351-001-00

000-20-25-101-001-00

In my opinion, all of these parcels would be exempt from having the real estate taxes uncapped under two theories: 1) the properties are qualified agricultural property MCL 211.7dd; and 2) commonly controlled entities, MCL 211.27a(7)(1). The agricultural property exemption is clear. However, I want to give you the history of the corporations and individuals and the exemption under the commonly controlled entities theory.

The beneficiaries of the Estate of Glynn A. Trolz at the time of the transfers were Gary Trolz, Glynn Trolz, II, James Trolz and Lisa Hunt. Glynn Trolz and Associates had only one stockholder, Glynn A. Trolz, and therefore, when he died, the sole shareholder was the Estate of Glynn A. Trolz. Therefore, when the transfers occurred from the Estate of Glynn A. Trolz to Glynn Trolz and Associates, the control was the same individuals, the ultimate beneficiaries of the estate, Gary Trolz, Glynn Trolz II, James Trolz and Lisa Hunt. Glynn Trolz and Associates, Inc. then established GT Ranch, LLC and was the sole member of GT Ranch, LLC. Because the beneficiaries, Gary Trolz, Glynn Trolz, II, James Trolz and Lisa Hunt were vested owners of Glynn Trolz and Associates, Inc., they were the only vested owners of GT Ranch, LLC at the time the transfers occurred.

The State Tax Commission has directed that the Michigan Revenue Administrative Bulletin 1989-48 is to be used in determining whether entities are commonly controlled. The Michigan Revenue Administrative Bulletin 1989-48 and case law determining common control look to the owners of an entity to see if they are common and to the beneficiaries of trusts and estates, such as you have in this instance. Who is the trustee of a trust or personal representative of an estate is not the issue. The issue is who are the beneficiaries of these entities. In *Sebastian J. Mancuso Family Trust v City of Charlevoix COA, unpublished February 5, 2013,* the court

held that beneficiaries have an ownership interest in the property. Therefore, two entities with the same beneficiaries may constitute "commonly controlled" entities. This finding was based on the fact that although the trustee, or personal representative, has extensive control over the trust, or the estate, he or she is ultimately liable to the beneficiaries. The Michigan Tax Tribunal applied the *Mancuso Family Trust* decision and found that a trust (estate) and a partnership were legal entities which were commonly controlled by looking through to the beneficiaries of the trust (estate). The beneficiaries have the control of the trust and the trust was the sole owner of the partnership. In the case of the Trolz family, the beneficiaries of the Estate of Glynn A. Trolz were the ultimate owners of Glynn Trolz and Associates, Inc. and the ultimate owners of GT Ranch, LLC, which was solely owned by Glynn Trolz and Associates, Inc.

In my opinion, the transfers addressed in this letter are exempt under MCL 211.7dd and MCL 211.27a(7)(1). I do not recall if the proper documentation had been given to you at the time of recording. If the proper documents were not presented to you at the time of recording, please let me know and I will have them completed.

Very truly yours,

LOOMIS, EWERT, PARSLEY,
DAVIS & GOTTING, P.C.

Catherine A. Jacobs

Catherine A. Jacobs

cc: Gary Trolz

FARM ASSESSMENT RECORD

000-20-25-101-00100

CO
TO 000-20-25-101-001-00
GLYNN TROLZ & ASSOC INC
OV 3460 ANN ARBOR RD BOX 249
DES JACKSON MI 49202
SEC

Rich Farm

PHYSICAL AND ECONOMIC FACTORS

Dwt

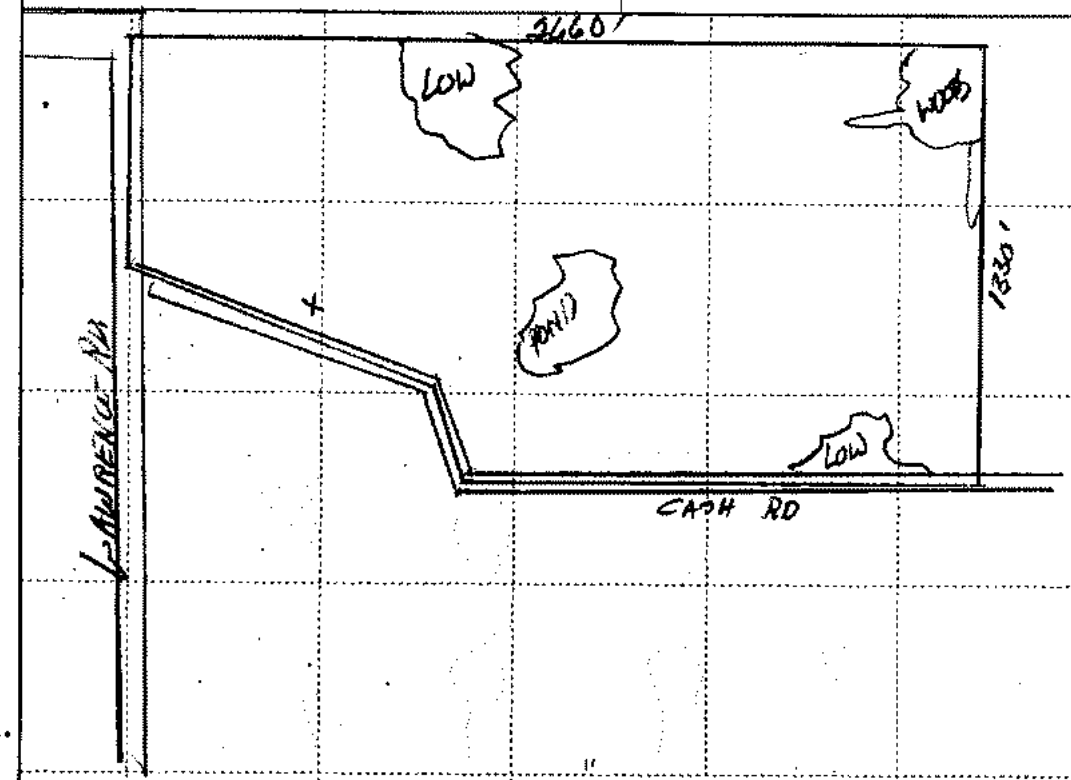
...r (name) ..... miles
) ..... miles
..... miles

☑ Electricity ☐ Telephone ☐ Gas Line

CASH RD

Jane Fuse 4/30/11

3460 Ann Arbor Rd Box 249
Jackson, Mi 49202



Type	Class	Acres
Cropland and untillable pasture	1	
	2	
	3	
	4	

FRUIT

Type	Acres or No.	Age	Rate	Total
			$	$

Total Fruit $

72.5

LAND VALUE

Area No.	No. Acres	Value/A.	Total
RW	2.5 A	$	$
Tillable	54.2	700	37,940
Conservation	15.3	400	6,120

Total Land $ 44,060

SUMMARY OF APPRAISAL

TOTAL LAND . . . . . $
~~TOTAL FRUIT~~ Well & Septic . . . 2000
TOTAL BUILDINGS 17,395
TOTAL APPRAISED VALUE . . . . . $ 63,455

Board of Review	1977	1978	1979	1980
LAND	22,900	24,000	24,000	26,000
BUILDINGS				
Total	81	82	84	86
State Tax Commission				
LAND	31,100	32,600	34,000	33,000
BUILDINGS				
Total	89	90	91	93

1. Type	
✓	Single Family
2. Frame	
✓	Wood
3. Exterior	
	Wood
	Aluminum
	Brick
	Block
✓	AS BEVERED
4. Roof	
	Hip
✓	Gable
	Front Overhang
	Other Overhang
	Eavestrough
	Chimney Type:
✓	Brick / Block
	Stone / Metal
✓	Asphalt Shingles
5. Windows	
	Many / Few
	Large / Small
✓	Wood Sash
	Metal Sash
	Double Hung
	Hor. Sliding
	Double Glass
	Complete Trim
	No Inside Trim
✓	Storms & Scr.
6. Year Built:	OLD
7. Year Remod.	
8. Number Rooms	
	Basement
	1st Floor
	2nd Floor
	Baths
9. Insulation	
	Ceiling
	Entire
	None

10. Floor Support	
	Joists " x ", " o.c.
	Unsupported Length ft.
	Sill Plate: ☐ Yes ☐ No
	Diag. Sub-Floor " x "
	Ply. Sub-Floor " x "
	Center Support
11. Basement & Foundation	
	Crawl Space s.f.
	Slab House s.f.
	Basement s.f.
	Height to Joists ft.
	Concrete Block "
	Concrete Walls "
	Concrete Floor
	Asphalt Tile s.f.
	Recreation Room s.f.
12. Heating & Air Conditioning	
✓	Gas - Forced Warm Air LP
	Oil - Forced Warm Air
	Gas / Oil / Coal
	Wall Fur. / Floor Fur.
	Stove or Space Heat
	Steam Radiators
	Forced Warm Water
	AIR CONDITIONER tons
	FIREPLACE ft.
13. Interior	
	Trim & Decoration:
	Elab. / Ord. / Min.
	Size of Closets:
	Large / Ord. / Small
	Number of Closets:
	Many / Ord. / Few
	No. & Qual. Electric Fixtures:
	Ex. / Ord. / Min.
	No. Electric Outlets:
	Many / Ord. / Few
	Foyer
	Kit. Fl.
	Other Fl.
	Drywall
	Plaster
	Coved Ceilings
	Paneled Wainscot
	Hardware Qual.

14. Plumbing	
1	No. of Baths $
	Cer. Tile Walls
	Cer. Tile Floor
	Plastic Tile Walls
	Extra Stool
	Extra Wash Bowl
Water Heater:	
	Gals. / Gas / Elec.
15. Built-In Items	
	Oven Range $
	Disposal
	Hood & Fan
	Dishwasher
	Refrigerator
	Incinerator
	Vanities
	Cupboard Length
	Cupboard Quality

16. Garage	
Year Built	
	Attached / Separate
	Cars / Condition
	Wide / Deep
Walls	
Floor	
Doors	
Common Wall	
Other Walls	
Ceiling	

17. Porches		
Wide	Deep	Type
22	8	WGEP

Priced by
Date
Checked By
Date

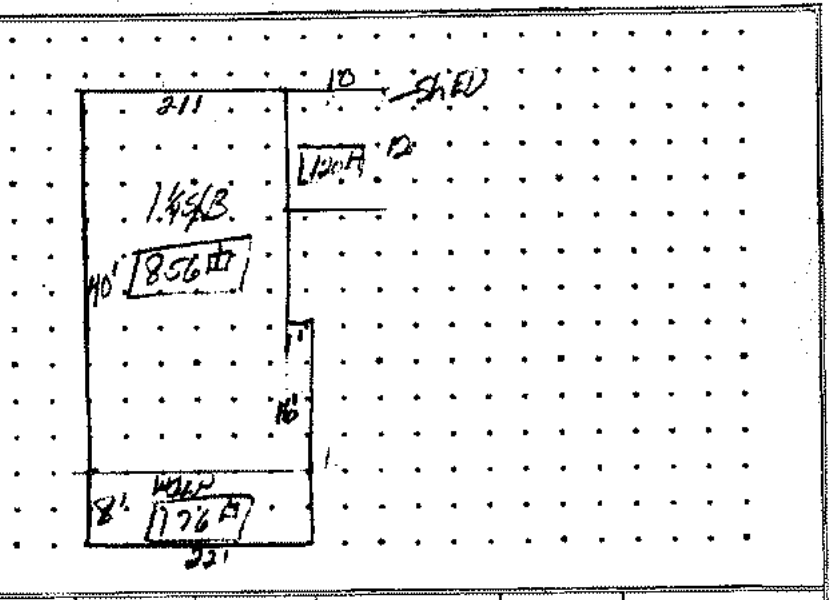
CLASS D Size for Rates 850

Typical Classes of Other Houses in this Neighborhood

Neighborhood is ☐ Improving ☐ Stable ☐ Declining

Condition for Age

Effective Age



ITEM OR NO. STORIES	SQUARE FEET	UNIT COST	BASE VALUE	DEPR. & OBSOL. % GOOD	DEPR. VALUE
1½S/B	856	$ 34.48	$ 29,575		$
WGEP	176	15.62	2,760		
SHED		NO VALUE			
			32,275	1.06 45%	15,395
		OUT BLDGS - FLAT			2000

Total Depr. Value $

Econ. Cond. Factor x %

True Cash Value $ 17,395

Building Type

X	Single Family
	Mobile Home
	Town Home
	Duplex
	A-Frame

X	Wood Frame

Building Style: 1 STORY

YearBuilt	Remodeled
0	

Condition for Age: Good

Room List

	Basement
	1st Floor
	2nd Floor
	Bedrooms

(1) Exterior

X	Wood/Shingle
	Aluminum/Vinyl
	Brick
	Insulation

(2) Windows

X	Many Ave.	X	Large Ave.
	Few		Small

Wood Sash
Metal Sash
Vinyl Sash
Double Hung
Horiz. Slide
Casement
Double Glass
Patio Doors
Storms&Screens

(3) Roof

X	Gable		Gambrel
	Hip		Mansard
	Flat		Shed

X	Asphalt Shingle

Chimney: Brick

(3) Roof (cont.)

	Eavestrough
	Insulation
0	Front Overhang
0	Other Overhang

(4) Interior

	Drywall		Plaster
	Paneled		Wood T&G

Trim & Decoration

	Ex	X	Ord	Min

Size of Closets

	Lg	X	Ord	Small

Doors		Solid	X	H.C.	

(5) Floors

Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation

Basement: 0 S.F.
Crawl: 856 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement

	Conc. Block
	Poured Conc.
	Stone
	Treated Wood
	Concrete Floor

(9) Basement Finish

	Recreation SF
	Living SF
	Walkout Doors
	No Floor SF

(10) Floor Support

Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling

X	Gas		Oil		Elec.
	Wood		Coal		Steam

	Forced Air w/o Ducts
X	Forced Air w/ Ducts
	Forced Hot Water
	Electric Baseboard
	Elec. Ceil. Radient
	Radiant (in-floor)
	Electric Wall Heat
	Space Heater
	Wall/Floor Furnace
	Forced Heat & Cool
	Heat Pump
	No Heating/Cooling

	Central Air
	Wood Furnace

(12) Electric

Amps Service

No./Qual. of Fixtures

	Ex.	X	Ord.	Min

No. of Elec. Outlets

	Many	X	Ave.	Few

(13) Plumbing

1	Average Fixture(s)
	3 Fixture Bath
	2 Fixture Bath
	Softener, Auto
	Softener, Manual
	Solar Water Heat
	No Plumbing
	Extra Toilet
	Extra Sink
	Separate Shower
	Ceramic Tile Floor
	Ceramic Tile Wains
	Ceramic Tub Alcove
	Vent Fan

(14) Water/Sewer

	Public Water
	Public Sewer
1	Water Well
1	1000 Gal Septic
	2000 Gal Septic

Lump Sum Items:

(15) Built-ins

	Appliance Allow.
	Cook Top
	Dishwasher
	Garbage Disposal
	Bath Heater
	Vent Fan
	Hot Tub
	Unvented Hood
	Vented Hood
	Intercom
	Jacuzzi Tub
	Jacuzzi repl.Tub
	Oven
	Microwave
	Standard Range
	Self Clean Range
	Sauna
	Trash Compactor
	Central Vacuum
	Security System

(15) Fireplaces

	Interior 1 Story
	Interior 2 Story
	2nd/Same Stack
	Two Sided
	Exterior 1 Story
	Exterior 2 Story
	Prefab 1 Story
	Prefab 2 Story
	Heat Circulator
	Raised Hearth
	Wood Stove
	Direct-Vented Ga

Class: CD+10
Effec. Age: 30
Floor Area: 1070
Total Base Cost: 60,777
Total Cost New : 73,540
Total Depr Cost: 51,478
Estimated T.C.V: 71,554

CntyMult X 1.210
E.C.F. X 1.390

(16) Porches/Decks

Area	Type
176	WGEP (1 Story)

(17) Garage

Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
1.25 Story	Siding	Crawl Space	65.90	-8.47	0.00	856	49,160

Other Additions/Adjustments	Rate	Size	Cost
(14) Water/Sewer			
Well, 200 Feet	4250.00	1	4,250
1000 Gal Septic	2495.00	1	2,495
(16) Porches			
WGEP (1 Story), Standard	27.68	176	4,872
Phy/Ab.Phy/Func/Econ/Comb.%Good= 70/100/100/100/70.0,		Depr.Cost =	51,478
ECF (AGRICULTURAL)	1.390 => TCV of Bldg:	1 =	71,554

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-25-101-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 03/31/2010

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
CASH RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD BOX 249
JACKSON MI 49202

Description
N 1/2 OF NW 1/4 EXC THAT PART THEREOF LYING SWLY OF CEN LN OF CASH RD SEC 25 T4S R2E

Comments/Influences

Class: Agricultural | Zoning: RES

School: District 38040

P.R.E. 100% / /

Map #:

2010 Est TCV 290,304 TCV/TFA: 271.31

Building Permit(s)	Date	Number	Status

X Improved | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who When What

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Acreage Table 'A'			72.500 Acres		2414	125		218,750
			72.50 Total Acres		Total Est. Land Value =			218,750

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2010	109,380	35,770	145,150			46,822C
2009	109,380	38,090	147,470			46,963C
2008	107,660	37,060	144,720			44,984C
2007	112,813	37,064	149,877			43,973C

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Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-25-101-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 05/19/2008

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
CASH RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD BOX 249
JACKSON MI 49202

Legal Description
N 1/2 OF NW 1/4 EXC THAT PART THEREOF LYING SWLY OF CEN LN OF CASH RD SEC 25 T4S R2E

Comments/Influences

Class: Agricultural | Zoning: RES

School: District 38040

P.R.E. 100% / /

Map #:

2008 Est TCV 289,440 TCV/TFA: 270.50

Building Permit(s)	Date	Number	Status

X	Improved		Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Acreage Table 'A'		72.500 Acres		2376	125			215,312
		72.50 Total Acres			Total Est. Land Value =			215,312

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2008	107,660	37,060	144,720			44,984C
2007	112,813	37,064	149,877			43,973C
2006	111,250	20,905	132,155			42,405C
2005		127,084	127,084			41,051C

Who	When	What

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Information herein deemed reliable but not guaranteed

Building Type
X Single Family
Mobile Home
Town Home
Duplex
A-Frame

X Wood Frame

Building Style: 1 STORY

YearBuilt 0 | Remodeled

Condition for Age: Good

Room List
Basement
1st Floor
2nd Floor
Bedrooms

(1) Exterior
X Wood/Shingle
Aluminum/Vinyl
Brick

Insulation

(2) Windows
X Many Ave. | X Large Ave. | Small
Few

Wood Sash
Metal Sash
Vinyl Sash
Double Hung
Horiz. Slide
Casement
Double Glass
Patio Doors
Storms&Screens

(3) Roof
X Gable | Gambrel
Hip | Mansard
Flat | Shed

X Asphalt Shingle

Chimney: Brick

(3) Roof (cont.)
Eavestrough
Insulation
0 Front Overhang
0 Other Overhang

(4) Interior
Drywall Paneled | Plaster | Wood T&G

Trim & Decoration
Ex | X Ord | Min

Size of Closets
Lg | X Ord | Small

Doors | Solid | X H.C.

(5) Floors
Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation
Basement: 0 S.F.
Crawl: 856 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement
Conc. Block
Poured Conc.
Stone
Treated Wood
Concrete Floor

(9) Basement Finish
Recreation SF
Living SF
Walkout Doors
No Floor SF

(10) Floor Support
Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling
X Gas | Oil | Elec.
Wood | Coal | Steam

X Forced Air w/o Ducts
Forced Air w/ Ducts
Forced Hot Water
Electric Baseboard
Elec. Ceil. Radient
Radiant (in-floor)
Electric Wall Heat
Space Heater
Wall/Floor Furnace
Forced Heat & Cool
Heat Pump
No Heating/Cooling

Central Air
Wood Furnace

(12) Electric
Amps Service

No./Qual. of Fixtures
Ex. | X Ord. | Min

No. of Elec. Outlets
Many | X Ave. | Few

(13) Plumbing
1 Average Fixture(s)
3 Fixture Bath
2 Fixture Bath
Softener, Auto
Softener, Manual
Solar Water Heat
No Plumbing
Extra Toilet
Extra Sink
Separate Shower
Ceramic Tile Floor
Ceramic Tile Wains
Ceramic Tub Alcove
Vent Fan

(14) Water/Sewer
Public Water
Public Sewer
1 Water Well
1 1000 Gal Septic
2000 Gal Septic

Lump Sum Items:

(15) Built-ins
Appliance Allow.
Cook Top
Dishwasher
Garbage Disposal
Bath Heater
Vent Fan
Hot Tub
Unvented Hood
Vented Hood
Intercom
Jacuzzi Tub
Jacuzzi repl.Tub
Oven
Microwave
Standard Range
Self Clean Range
Sauna
Trash Compactor
Central Vacuum
Security System

(15) Fireplaces
Interior 1 Story
Interior 2 Story
2nd/Same Stack
Two Sided
Exterior 1 Story
Exterior 2 Story
Prefab 1 Story
Prefab 2 Story
Heat Circulator
Raised Hearth
Wood Stove
Direct-Vented Ga

Class: CD+10
Effec. Age: 30
Floor Area: 1070
Total Base Cost: 60,777
Total Cost New : 73,540
Total Depr Cost: 51,478
Estimated T.C.V: 74,128

CntyMult X 1.210
E.C.F. X 1.440

(16) Porches/Decks

Area	Type
176	WGEP (1 Story)

(17) Garage
Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
1.25 Story	Siding	Crawl Space	65.90	-8.47	0.00	856	49,160

Other Additions/Adjustments	Rate	Size	Cost
(14) Water/Sewer			
Well, 200 Feet	4250.00	1	4,250
1000 Gal Septic	2495.00	1	2,495
(16) Porches			
WGEP (1 Story), Standard	27.68	176	4,872
Phy/Ab.Phy/Func/Econ/Comb.%Good= 70/100/100/100/70.0,		Depr.Cost =	51,478
ECF (50 AGRICULTURAL)	1.440 => TCV of Bldg:	1 =	74,128

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-25-101-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 06/27/2007

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
CASH RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD BOX 249
JACKSON MI 49202

Legal Description
N 1/2 OF NW 1/4 EXC THAT PART THEREOF LYING SWLY OF CEN LN OF CASH RD SEC 25 T4S R2E

Comments/Influences

Class: Agricultural | Zoning: RES

School: District 38040

P.R.E. 100% / /

Map #:

2008 Est TCV 298,694 TCV/TFA: 279.15

Building Permit(s)	Date	Number	Amount

X Improved | Vacant

Public Improvements

Dirt Road
Gravel Road
Paved Road
Storm Sewer
Sidewalk
Water
Sewer
Electric
Gas
Curb
Street Lights
Standard Utilities
Underground Utils.

Topography of Site

Level
Rolling
Low
High
Landscaped
Swamp
Wooded
Pond
Waterfront
Ravine
Wetland
Flood Plain

Who When What

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Acreage Table 'A'		72.500 Acres		2490	125			225,625
		72.50 Total Acres			Total Est. Land Value =			225,625

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2008	112,813	36,534	149,347			43,973C
2007	112,813	37,064	149,877			43,973C
2006	111,250	20,905	132,155			42,405C
2005		127,084	127,084			41,051C

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Information herein deemed reliable but not guaranteed

Building Type
X Single Family
Mobile Home
Town Home
Duplex
A-Frame

X Wood Frame

Building Style:
1 STORY

YearBuilt 0 | Remodeled

Condition for Age:
Good

Room List
Basement
1st Floor
2nd Floor
Bedrooms

(1) Exterior
X Wood/Shingle
Aluminum/Vinyl
Brick
Insulation

(2) Windows
X Many Ave. | X Large Ave.
Few | Small
Wood Sash
Metal Sash
Vinyl Sash
Double Hung
Horiz. Slide
Casement
Double Glass
Patio Doors
Storms&Screens

(3) Roof
X Gable | Gambrel
Hip | Mansard
Flat | Shed
X Asphalt Shingle
Chimney: Brick

(3) Roof (cont.)
Eavestrough
Insulation
0 Front Overhang
0 Other Overhang

(4) Interior
Drywall Paneled | Plaster Wood T&G
Trim & Decoration
Ex | X Ord | Min
Size of Closets
Lg | X Ord | Small
Doors | Solid | X H.C.

(5) Floors
Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation
Basement: 0 S.F.
Crawl: 856 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement
Conc. Block
Poured Conc.
Stone
Treated Wood
Concrete Floor

(9) Basement Finish
Recreation SF
Living SF
Walkout Doors
No Floor SF

(10) Floor Support
Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling
X Gas | Oil | Elec.
Wood | Coal | Steam
X Forced Air w/o Ducts
Forced Air w/ Ducts
Forced Hot Water
Electric Baseboard
Elec. Ceil. Radient
Radiant (in-floor)
Electric Wall Heat
Space Heater
Wall/Floor Furnace
Forced Heat & Cool
Heat Pump
No Heating/Cooling
Central Air
Wood Furnace

(12) Electric
Amps Service
No./Qual. of Fixtures
Ex. | X Ord. | Min
No. of Elec. Outlets
Many | X Ave. | Few

(13) Plumbing
1 Average Fixture(s)
3 Fixture Bath
2 Fixture Bath
Softener, Auto
Softener, Manual
Solar Water Heat
No Plumbing
Extra Toilet
Extra Sink
Separate Shower
Ceramic Tile Floor
Ceramic Tile Wains
Ceramic Tub Alcove
Vent Fan

(14) Water/Sewer
Public Water
Public Sewer
1 Water Well
1 1000 Gal Septic
2000 Gal Septic

Lump Sum Items:

(15) Built-ins
Appliance Allow.
Cook Top
Dishwasher
Garbage Disposal
Bath Heater
Vent Fan
Hot Tub
Unvented Hood
Vented Hood
Intercom
Jacuzzi Tub
Jacuzzi repl.Tub
Oven
Microwave
Standard Range
Self Clean Range
Sauna
Trash Compactor
Central Vacuum
Security System

(15) Fireplaces
Interior 1 Story
Interior 2 Story
2nd/Same Stack
Two Sided
Exterior 1 Story
Exterior 2 Story
Prefab 1 Story
Prefab 2 Story
Heat Circulator
Raised Hearth
Wood Stove
Direct-Vented Ga

Class: CD+10
Effec. Age: 31
Floor Area: 1070
Total Base Cost: 60,777
Total Cost New : 73,540
Total Depr Cost: 50,743
Estimated T.C.V: 73,069
CntyMult X 1.210
E.C.P. X 1.440

(16) Porches/Decks

Area	Type
176	WGEP (1 Story)

(17) Garage
Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
1.25 Story	Siding	Crawl Space	65.90	-8.47	0.00	856	49,160

Other Additions/Adjustments	Rate	Size	Cost
(14) Water/Sewer			
Well, 200 Feet	4250.00	1	4,250
1000 Gal Septic	2495.00	1	2,495
(16) Porches			
WGEP (1 Story), Standard	27.68	176	4,872

Phy/Ab.Phy/Func/Econ/Comb.%Good= 69/100/100/100/69.0, Depr.Cost = 50,743
ECF (50 AGRICULTURAL) 1.440 => TCV of Bldg: 1 = 73,069

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-25-101-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 05/02/2012

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

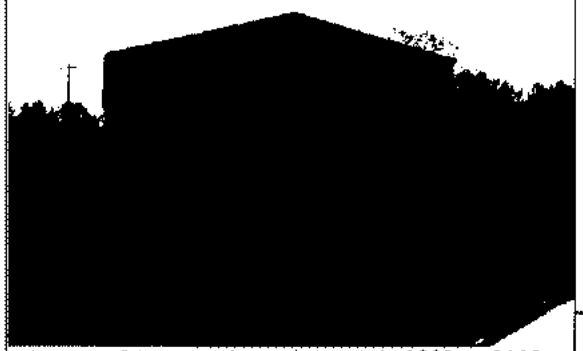
Property Address
CASH RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD BOX 249
JACKSON MI 49202

Description
N 1/2 OF NW 1/4 EXC THAT PART THEREOF LYING SWLY OF CEN LN OF CASH RD SEC 25 T4S R2E

Comments/Influences



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Class: Agricultural | Zoning: RES

School: District 38040

P.R.E. 100% / / Qual. Ag.

Map #:

2012 Est TCV 247,155

Building Permit(s)	Date	Number	Status

X	Improved		Vacant

Public Improvements

	Dirt Road
	Gravel Road
X	Paved Road
	Storm Sewer
	Sidewalk
	Water
	Sewer
	Electric
	Gas
	Curb
	Street Lights
	Standard Utilities
	Underground Utils.

Topography of Site

	Level
X	Rolling
	Low
	High
	Landscaped
	Swamp
X	Wooded
	Pond
	Waterfront
	Ravine
	Wetland
	Flood Plain

Who	When	What
JG	04/30/2011	Data Ent
JG	04/29/2011	Inspecte

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Rate Table SW/WW - 10-40A			7.40 Acres		950	100		7,030
Rate Table CONSERVATION			14.20 Acres		3250	100		46,150
Rate Table +40 - 80 ACRES			46.10 Acres		3750	100		172,875
Rate Table ROAD R/W			2.65 Acres		0	100		
Rate Table BUILDING SITE			2.11 Acres		10000	100		21,100
			72.46 Total Acres		Total Est. Land Value =			247,155

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2012	123,580		123,580			48,902C
2011	128,340	1,430	129,770			47,617C
2010	109,380	35,770	145,150			46,822C
2009	109,380	38,090	147,470			46,963C

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-25-101-001-00

Printed on 05/02/2012

Building Type	Barn, General Purpose	Barn, General Purpose	Utility Building	Utility Building	
Year Built					
Class/Construction	D,Pole	D,Pole	D,Pole	D,Pole	
Quality/Exterior	Cheap (No Rates)	Cheap (No Rates)	Cheap (No Rates)	Cheap (No Rates)	
Base Rate/SF	0.00	0.00	0.00	0.00	
# of Walls, Perimeter	4 Wall , 208	4 Wall , 156	4 Wall , 116	4 Wall , 112	
Perimeter Mult.	X 1.007 = 0.00	X 1.062 = 0.00	X 1.143 = 0.00	X 1.154 = 0.00	
Height					
Story Height Mult.	X 0.946 = 0.00	X 0.946 = 0.00	X 0.946 = 0.00	X 0.946 = 0.00	
Heating System	No Heating/Cooling	No Heating/Cooling	No Heating/Cooling	No Heating/Cooling	
Heat Adj./SF					
Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.25 = 0.00	X 1.25 = 0.00	X 1.25 = 0.00	X 1.25 = 0.00	
Final Rate/SF	$0.00	$0.00	$0.00	$0.00	
Length/Width/Area	70 x 34 = 2380	48 x 30 = 1440	26 x 32 = 832	30 x 26 = 780	
Cost New	$	$	$	$	
Phy./Func./Econ. %Good	20/100/130 20.0	30/100/100 30.0	20/100/100 20.0	20/100/100 20.0	
Depreciated Cost	$	$	$	$	
+ Unit-In-Place Items	$	$	$	$	
Description, Size X Rate X %Good = Cost Itemized ->\ Unit-In-Place ->\ Items ->					
E.C.F.	X 0.90	X 0.90	X 0.90	X 0.90	
Est. True Cash Value	$	$	$	$	
Comments:					

Total Estimated True Cash Value of Agricultural Improvements / This Card: 0 / All Cards: 0

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-25-101-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 03/10/2009

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
CASH RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD BOX 249
JACKSON MI 49202

Legal Description
N 1/2 OF NW 1/4 EXC THAT PART THEREOF LYING SWLY OF CEN LN OF CASH RD SEC 25 T4S R2E

Comments/Influences

Class: Agricultural | Zoning: RES

School: District 38040

P.R.E. 100% / /

Map #:

2009 Est TCV 294,937 TCV/TFA: 275.64

Building Permit(s)	Date	Number	Status

X Improved | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who When What

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Acreage Table 'A'			72.500 Acres		2414	125		218,750
			72.50 Total Acres		Total Est. Land Value =			218,750

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2009	109,380	38,090	147,470			46,963C
2008	107,660	37,060	144,720			44,984C
2007	112,813	37,064	149,877			43,973C
2006	111,250	20,905	132,155			42,405C

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Information herein deemed reliable but not guaranteed

Building Type
- X Single Family
- Mobile Home
- Town Home
- Duplex
- A-Frame

- X Wood Frame

Building Style: 1 STORY

YearBuilt: 0 | Remodeled:

Condition for Age: Good

Room List
- Basement
- 1st Floor
- 2nd Floor
- Bedrooms

(1) Exterior
- X Wood/Shingle
- Aluminum/Vinyl
- Brick

Insulation

(2) Windows

X	Many Ave.	X	Large Ave.
	Few		Small

- Wood Sash
- Metal Sash
- Vinyl Sash
- Double Hung
- Horiz. Slide
- Casement
- Double Glass
- Patio Doors
- Storms&Screens

(3) Roof

X	Gable		Gambrel
	Hip		Mansard
	Flat		Shed

- X Asphalt Shingle

Chimney: Brick

(3) Roof (cont.)
- Eavestrough
- Insulation
- 0 Front Overhang
- 0 Other Overhang

(4) Interior

	Drywall		Plaster
	Paneled		Wood T&G

Trim & Decoration

Ex	X	Ord		Min

Size of Closets

Lg	X	Ord		Small

Doors		Solid	X	H.C.

(5) Floors

Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation

Basement: 0 S.F.
Crawl: 856 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement
- Conc. Block
- Poured Conc.
- Stone
- Treated Wood
- Concrete Floor

(9) Basement Finish
- Recreation SF
- Living SF
- Walkout Doors
- No Floor SF

(10) Floor Support

Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling

X	Gas		Oil		Elec.	
	Wood		Coal		Steam	

- X Forced Air w/o Ducts
- Forced Air w/ Ducts
- Forced Hot Water
- Electric Baseboard
- Elec. Ceil. Radient
- Radiant (in-floor)
- Electric Wall Heat
- Space Heater
- Wall/Floor Furnace
- Forced Heat & Cool
- Heat Pump
- No Heating/Cooling

- Central Air
- Wood Furnace

(12) Electric

Amps Service

No./Qual. of Fixtures

Ex.	X	Ord.		Min

No. of Elec. Outlets

Many	X	Ave.		Few

(13) Plumbing

1	Average Fixture(s)
	3 Fixture Bath
	2 Fixture Bath
	Softener, Auto
	Softener, Manual
	Solar Water Heat
	No Plumbing
	Extra Toilet
	Extra Sink
	Separate Shower
	Ceramic Tile Floor
	Ceramic Tile Wains
	Ceramic Tub Alcove
	Vent Fan

(14) Water/Sewer

	Public Water
	Public Sewer
1	Water Well
1	1000 Gal Septic
	2000 Gal Septic

Lump Sum Items:

(15) Built-ins
- Appliance Allow.
- Cook Top
- Dishwasher
- Garbage Disposal
- Bath Heater
- Vent Fan
- Hot Tub
- Unvented Hood
- Vented Hood
- Intercom
- Jacuzzi Tub
- Jacuzzi repl.Tub
- Oven
- Microwave
- Standard Range
- Self Clean Range
- Sauna
- Trash Compactor
- Central Vacuum
- Security System

(15) Fireplaces
- Interior 1 Story
- Interior 2 Story
- 2nd/Same Stack
- Two Sided
- Exterior 1 Story
- Exterior 2 Story
- Prefab 1 Story
- Prefab 2 Story
- Heat Circulator
- Raised Hearth
- Wood Stove
- Direct-Vented Ga

Class: CD+10
Effec. Age: 30
Floor Area: 1070
Total Base Cost: 60,777
Total Cost New : 73,540
Total Depr Cost: 51,478
Estimated T.C.V: 76,187

CntyMult X 1.210
E.C.F. X 1.480

(16) Porches/Decks

Area	Type
176	WGEP (1 Story)

(17) Garage

Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
1.25 Story	Siding	Crawl Space	65.90	-6.47	0.00	856	49,160

Other Additions/Adjustments	Rate	Size	Cost
(14) Water/Sewer			
Well, 200 Feet	4250.00	1	4,250
1000 Gal Septic	2495.00	1	2,495
(16) Porches			
WGEP (1 Story), Standard	27.68	176	4,872

Phy/Ab.Phy/Func/Econ/Comb.%Good= 70/100/100/100/70.0, Depr.Cost = 51,478
ECF (50 AGRICULTURAL) 1.480 => TCV of Bldg: 1 = 76,187

Information herein deemed reliable but not guaranteed

FARM ASSESSMENT RECORD

000-20-24-301-001-00

COU 000-20-24-301-001-00
TOW GLYNN TROLZ & ASSOC INC
OWN 3460 ANN ARBOR RD BOX 249
DESC JACKSON MI 49202
SECTI

PHYSICAL AND ECONOMIC FACTORS

(name) ____ miles
____ miles
____ miles

☐ Electricity ☐ Telephone ☐ Gas Line

LAWRENCE RD (1061 7) 10/22/11

39.5A

WER
11/90

FRUIT

Type	Acres or No.	Age	Rate	Total
			$	$
				4[illegible]

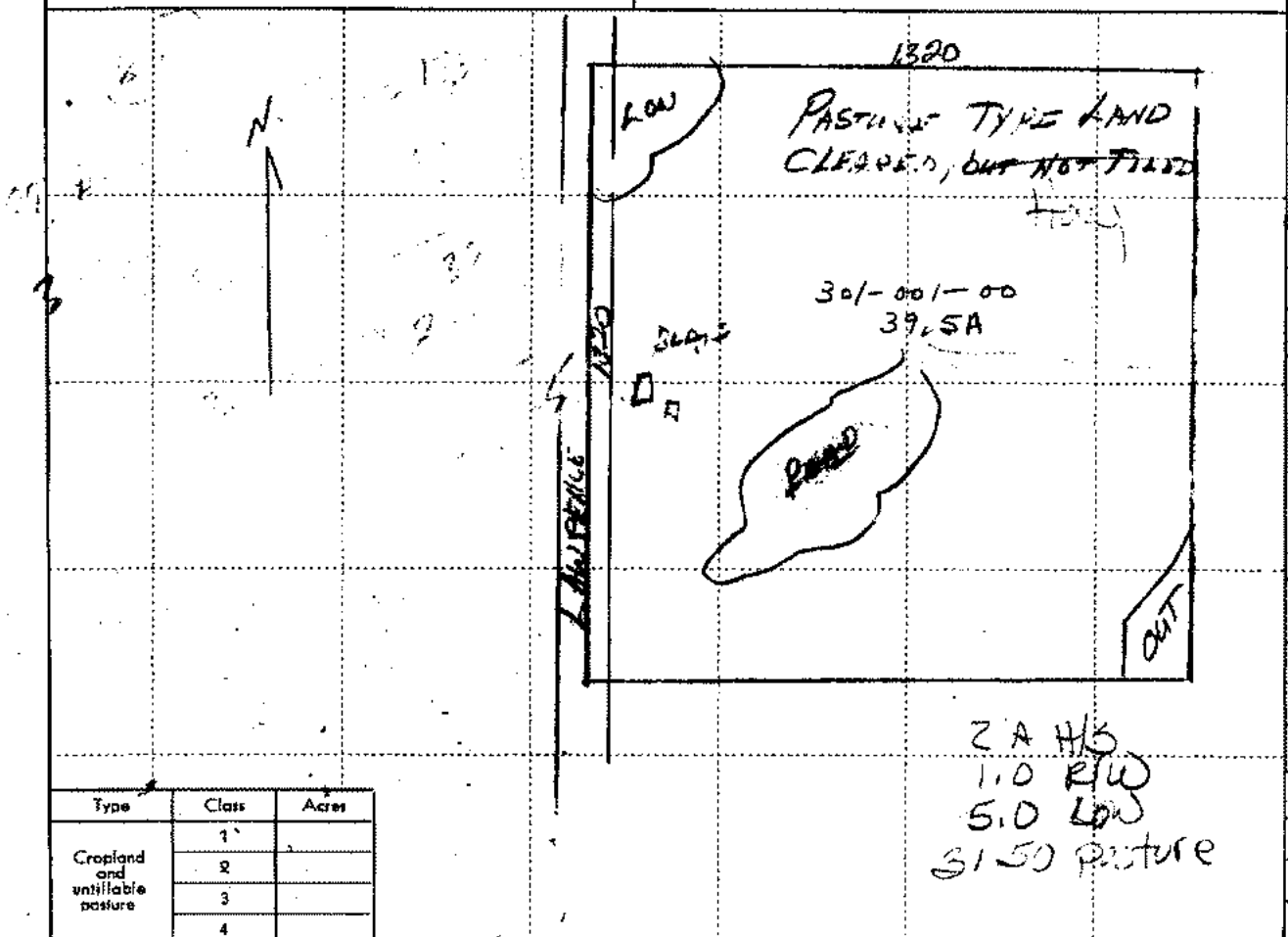
Total Fruit $

39.5

LAND VALUE

Area No.	No. Acres	Value/A.	Total
R/W	1.0A	$	$
CONSERVATION	38.5	400	15,400

Total Land $



Type	Class	Acres
Cropland and untillable pasture	1	
	2	
	3	
	4	

2A HAY
1.0 R/W
5.0 LOW
31.50 PASTURE

SUMMARY OF APPRAISAL

TOTAL LAND . . . . . $ 15,400
TOTAL FRUIT . . . WELL & SEPTIC . . 2000
TOTAL BUILDINGS . . . . . 17,524 (est.)
TOTAL APPRAISED VALUE . . . . . $ 34,924

Board of Review	19 81	19 82	19 86	19 89
LAND	20000	21,045	17,250	19,000
BUILDINGS	90	71	94	
Total	17,000	17000	17200	
State Tax Commission				
LAND				
BUILDINGS				
Total				

SEE APEX DRAWING

1. Type
- ✓ Single Family

2. Frame
- ✓ Wood

3. Exterior
- Wood
- ✓ Aluminum
- Brick
- Block

4. Roof
- Hip
- ✓ Gable
- Front Overhang
- Other Overhang
- Eavestrough
- Chimney Type:
- Brick / Block
- Stone / Metal
- Asphalt Shingles

5. Windows
- Many / Few
- Large / Small
- Wood Sash
- Metal Sash
- Double Hung
- Hor. Sliding
- Double Glass
- Complete Trim
- No Inside Trim
- Storms & Scr.

6. Year Built:

7. Year Remod.

8. Number Rooms
- Basement
- 1st Floor
- 2nd Floor
- Baths

9. Insulation
- Ceiling
- Entire
- None

10. Floor Support
- Joists " x ", " o.c.
- Unsupported Length ft.
- Sill Plate: ☐ Yes ☐ No
- Diag. Sub-Floor " x "
- Ply. Sub-Floor " x "
- Center Support

11. Basement & Foundation
- Crawl Space s.f.
- Slab House s.f.
- Basement s.f.
- Height to Joists ft.
- Concrete Block "
- Concrete Walls "
- Concrete Floor
- Asphalt Tile s.f.
- Recreation Room s.f.

12. Heating & Air Conditioning
- Gas - Forced Warm Air / ✓
- Oil - Forced Warm Air
- Gas / Oil / Coal
- Wall Fur. / Floor Fur.
- Stove or Space Heat
- Steam Radiators
- Forced Warm Water
- AIR CONDITIONER tons
- FIREPLACE ft.

13. Interior
- Trim & Decoration: Elab. / Ord. / Min.
- Size of Closets: Large / Ord. / Small
- Number of Closets: Many / Ord. / Few
- No. & Qual. Electric Fixtures: Ex. / Ord. / Min.
- No. Electric Outlets: Many / Ord. / Few
- Foyer
- Kit. Fl.
- Other Fl.
- Drywall
- Plaster
- Coved Ceilings
- Paneled Wainscot
- Hardware Qual.

14. Plumbing
- No. of Baths $
- Cer. Tile Walls
- Cer. Tile Floor
- Plastic Tile Walls
- Extra Stool
- Extra Wash Bowl
- Water Heater: Gals. / Gas / Elec.

15. Built-In Items
- Oven Range $
- Disposal
- Hood & Fan
- Dishwasher
- Refrigerator
- Incinerator
- Vanities
- Cupboard Length
- Cupboard Quality

16. Garage
- Year Built 1200
- Attached / Separate
- Cars / Condition
- Wide / Deep
- Walls
- Floor
- Doors
- Common Wall
- Other Walls
- Ceiling

17. Porches

Wide	Deep	Type
14	7	CBEP
14	8	"
9	7	"
5	4	CPP

Priced by
Date
Checked By
Date

CLASS Size for Rates 850

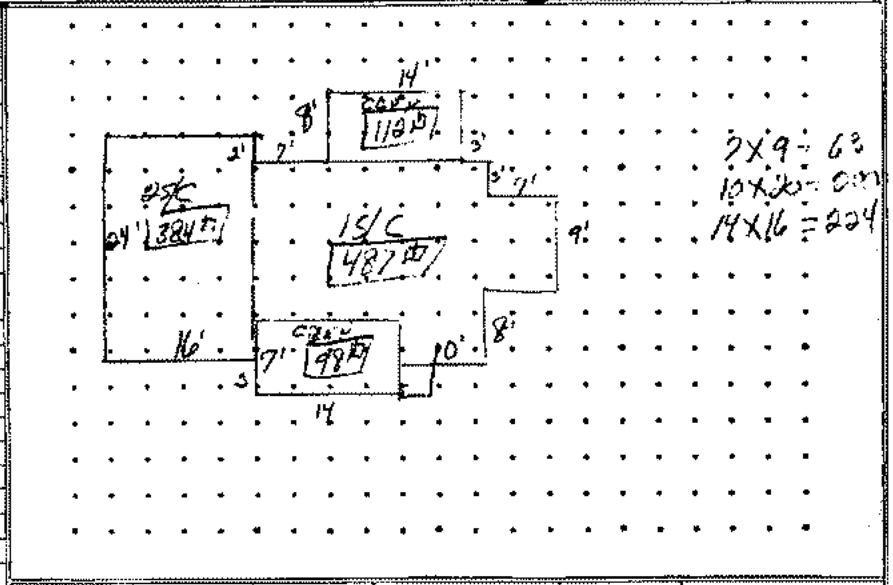
Typical Classes of Other Houses in this Neighborhood

Neighborhood is ☐ Improving ☐ Stable ☐ Declining

Condition for Age

Effective Age

25/B 44.88 15/3 30.18
[illegible] 6.10 — 6.10
24.68



ITEM OR NO. STORIES	SQUARE FEET	UNIT COST	BASE VALUE	DEPR. & OBSOL. % GOOD	DEPR. VALUE
25/C	384	$ 38.78	$ 14,892		$
15/C	487	24.[illegible]	11,727		
# 17	210	19.91	4,181		
			30,800	1.06 50%	16,324
	OLD GARAGE FEAT				1200

Total Depr. Value $

Econ. Cond. Factor x %

True Cash Value $ 17,524

SKETCH/AREA TABLE ADDENDUM

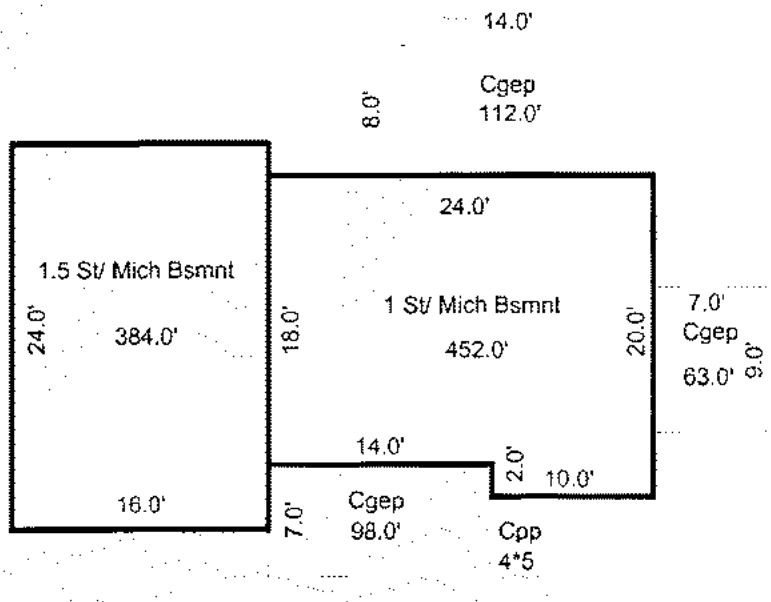
File No 000-20-24-301-001-00

SUBJECT

Property Address 10617 LAWRENCE RD
City County JACKSON State Zip
Owner GLYNN TROLZ & ASSOC INC
Client
Appraiser Name

IMPROVEMENTS SKETCH

Not livable
10/22/2011



AREA CALCULATIONS

AREA CALCULATIONS SUMMARY

Code	Description	Factor	Net Size	Perimeter	Net Totals
GLA1	1.5 St/ Mich Bsmnt	1.00	384.0	80.0	
	1 St/ Mich Bsmnt	1.00	452.0	88.0	836.0
P/P	Cgep	1.00	98.0	42.0	
	Cgep	1.00	63.0	32.0	
	Cgep	1.00	112.0	44.0	273.0

Net LIVABLE Area (Rounded w/ Factors) 836

Parcel Number: 000-20-24-301-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 05/02/2012

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
10617 LAWRENCE RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD.-BOX 249
JACKSON MI 49202

Description
NW 1/4 OF SW 1/4 EXC LD DESCD AS---BEG AT SE COR OF NW 1/4 OF SW 1/4 TH W ALG S 1/8 LN 8.5 RDS TH NLY 6.5 RDS TO A PT DISTANT 8.125 RDS W OF W 1/8 LN TH NELY 6.5 RDS TO PT 2 1/4 RDS W OF W 1/8 LN TH NELY 10 RDS TO W 1/8 LN TH S ALG W 1/8 LN 20 RDS M/L TO BEG. SEC 24 T4S R2E

Comments/Influences

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Licensed to: Norvell Township, Jackson County

Class: Agricultural | Zoning: RES | School: District 38040 | P.R.E. 45% / / | Map #:

2012 Est TCV 155,649 TCV/TFA: 151.41

Building Permit(s)	Date	Number	Status

X Improved | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who	When	What
JG	10/30/2011	Data Ent
JG	10/29/2011	Inspecte

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Rate Table BUILDING SITE	2.00 Acres		10000		100			20,000
Rate Table CONSERVATION	33.50 Acres		3250		100			108,875
Rate Table ROAD R/W	1.00 Acres		0		100			
Rate Table LOW SW/WW 40+	3.00 Acres		750		100			2,250
	39.50 Total Acres						Total Est. Land Value =	131,125

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2012	65,560	12,260	77,820			27,727C
2011	27,630	38,250	65,880			26,999C
2010	33,380	52,270	85,650			25,653C
2009	33,380	55,660	89,040			25,731C

Information herein deemed reliable but not guaranteed

Building Type

X	Single Family
	Mobile Home
	Town Home
	Duplex
	A-Frame

X	Wood Frame

Building Style: 1 STORY

YearBuilt	Remodeled
0	

Condition for Age: Good

Room List

	Basement
	1st Floor
	2nd Floor
	Bedrooms

(1) Exterior

X	Wood/Shingle
	Aluminum/Vinyl
	Brick
	Insulation

(2) Windows

X	Many Ave. Few	X	Large Ave. Small

Wood Sash
Metal Sash
Vinyl Sash
Double Hung
Horiz. Slide
Casement
Double Glass
Patio Doors
Storms&Screens

(3) Roof

X	Gable Hip Flat		Gambrel Mansard Shed

X	Asphalt Shingle

Chimney: Brick

(3) Roof (cont.)

	Eavestrough
	Insulation
0	Front Overhang
0	Other Overhang

(4) Interior

	Drywall Paneled		Plaster Wood T&G

Trim & Decoration

	Ex	X	Ord	Min

Size of Closets

	Lg	X	Ord	Small

Doors			Solid	X	H.C.

(5) Floors

Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation

Basement: 836 S.F.
Crawl: 0 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement

	Conc. Block
	Poured Conc.
	Stone
	Treated Wood
	Concrete Floor

(9) Basement Finish

	Recreation SF
	Living SF
	Walkout Doors
	No Floor SF

(10) Floor Support

Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling

X	Gas Wood		Oil Coal		Elec. Steam

	Forced Air w/o Ducts
X	Forced Air w/ Ducts
	Forced Hot Water
	Electric Baseboard
	Elec. Ceil. Radient
	Radiant (in-floor)
	Electric Wall Heat
	Space Heater
	Wall/Floor Furnace
	Forced Heat & Cool
	Heat Pump
	No Heating/Cooling

	Central Air
	Wood Furnace

(12) Electric

Amps Service

No./Qual. of Fixtures

	Ex.	X	Ord.	Min

No. of Elec. Outlets

	Many	X	Ave.	Few

(13) Plumbing

	Average Fixture(s)
1	3 Fixture Bath
	2 Fixture Bath
	Softener, Auto
	Softener, Manual
	Solar Water Heat
	No Plumbing
	Extra Toilet
	Extra Sink
	Separate Shower
	Ceramic Tile Floor
	Ceramic Tile Wains
	Ceramic Tub Alcove
	Vent Fan

(14) Water/Sewer

	Public Water
	Public Sewer
1	Water Well
1	1000 Gal Septic
	2000 Gal Septic

Lump Sum Items:

(15) Built-ins

1	Appliance Allow.
	Cook Top
	Dishwasher
	Garbage Disposal
	Bath Heater
	Vent Fan
	Hot Tub
	Unvented Hood
	Vented Hood
	Intercom
	Jacuzzi Tub
	Jacuzzi repl.Tub
	Oven
	Microwave
	Standard Range
	Self Clean Range
	Sauna
	Trash Compactor
	Central Vacuum
	Security System

(15) Fireplaces

	Interior 1 Story
	Interior 2 Story
	2nd/Same Stack
	Two Sided
	Exterior 1 Story
	Exterior 2 Story
	Prefab 1 Story
	Prefab 2 Story
	Heat Circulator
	Raised Hearth
	Wood Stove
	Direct-Vented Ga

Class: CD
Effec. Age: 45
Floor Area: 1028
Total Base Cost: 72,932
Total Cost New : 91,165
Total Depr Cost: 27,249
Estimated T.C.V: 24,524

CntyMult
X 1.250
E.C.F.
X 0.900

(16) Porches/Decks

Area	Type
112	CGEP (1 Story)
63	CGEP (1 Story)
68	CGEP (1 Story)
20	CPP

(17) Garage

Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
1	Story Siding	Mich Bsmnt.	61.64	-4.60	0.00	452	25,782
1.5	Story Siding	Mich Bsmnt.	78.63	-4.60	0.00	384	28,428

Other Additions/Adjustments	Rate	Size	Cost
(14) Water/Sewer			
Well, 100 Feet	2550.00	1	2,550
1000 Gal Septic	2895.00	1	2,895
(15) Built-Ins & Fireplaces			
Appliance Allowance	1415.00	1	1,415
(16) Porches			
CGEP (1 Story), Standard	51.73	63	3,259
CPP , Standard	30.25	20	605
Phy/Ab.Phy/Func/Econ/Comb.%Good= 55/100/100/ 50/27.5,		Depr.Cost =	22,321
Separately Depreciated Items:			
(16) Porches			
CGEP (1 Story), Standard	41.03	112	4,595
County Multiplier = 1.25 =>		Cost New =	5,744
Phy/Ab.Phy/Func/Econ/Comb.%Good= 99/100/100/ 50/49.5,		Depr.Cost =	2,843
CGEP (1 Story), Standard	50.05	68	3,403
County Multiplier = 1.25 =>		Cost New =	4,254
Phy/Ab.Phy/Func/Econ/Comb.%Good= 98/100/100/ 50/49.0,		Depr.Cost =	2,085
		Total Depreciated Cost =	27,249
SCF (AGRICULTURAL)	0.900 => TCV of Bldg: 1 =		24,524

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-24-301-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 03/10/2009

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
10617 LAWRENCE RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD.-BOX 249
JACKSON MI 49202

Legal Description
NW 1/4 OF SW 1/4 EXC LD DESCD AS---BEG AT SE COR OF NW 1/4 OF SW 1/4 TH W ALG S 1/8 LN 8.5 RDS TH NLY 6.5 RDS TO A PT DISTANT 8.125 RDS W OF W 1/8 LN TH NELY 6.5 RDS TO PT 2 1/4 RDS W OF W 1/8 LN TH NELY 10 RDS TO W 1/8 LN TH S ALG W 1/8 LN 20 RDS M/L TO BEG. SEC 24 T4S R2E

Comments/Influences

Class: Agricultural | Zoning: RES

School: District 38040

P.R.E. 45% / /

Map #:

2009 Est TCV 178,072 TCV/TPA: 137.83

Building Permit(s)	Date	Number	Status

X Improved | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who When What

WER 12/15/1994 Data Ent

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Rate Table BUILDING SITE	2.00 Acres		15000	125				37,500
Rate Table PASTURE- 10-40A	7.50 Acres		3900	100				29,250
	9.50 Total Acres				Total Est. Land Value =			66,750

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2009	33,380	55,660	89,040			25,731C
2008	4,510	83,430	87,940			24,647C
2007	33,787	54,157	87,944			24,093C
2006	73,664		73,664			23,234C

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Information herein deemed reliable but not guaranteed

Building Type
- X Single Family
- Mobile Home
- Town Home
- Duplex
- A-Frame

X Wood Frame

Building Style: 1 STORY

YearBuilt 0 | Remodeled

Condition for Age: Good

Room List
- Basement
- 1st Floor
- 2nd Floor
- Bedrooms

(1) Exterior
- X Wood/Shingle
- Aluminum/Vinyl
- Brick

Insulation

(2) Windows

X Many Ave. Few | X Large Ave. Small

- Wood Sash
- Metal Sash
- Vinyl Sash
- Double Hung
- Horiz. Slide
- Casement
- Double Glass
- Patio Doors
- Storms&Screens

(3) Roof

X Gable Hip Flat | Gambrel Mansard Shed

X Asphalt Shingle

Chimney: Brick

(3) Roof (cont.)

Eavestrough Insulation
0 Front Overhang
0 Other Overhang

(4) Interior

Drywall Paneled | Plaster Wood T&G

Trim & Decoration: Ex | X Ord | Min

Size of Closets: Lg | X Ord | Small

Doors: Solid | X H.C.

(5) Floors

Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation

Basement: 1196 S.F.
Crawl: 0 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement
- Conc. Block
- Poured Conc.
- Stone
- Treated Wood
- Concrete Floor

(9) Basement Finish

Recreation SF
Living SP
Walkout Doors
No Floor SF

(10) Floor Support

Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling

X Gas Wood | Oil Coal | Elec. Steam

- X Forced Air w/o Ducts
- Forced Air w/ Ducts
- Forced Hot Water
- Electric Baseboard
- Elec. Ceil. Radient
- Radiant (in-floor)
- Electric Wall Heat
- Space Heater
- Wall/Floor Furnace
- Forced Heat & Cool
- Heat Pump
- No Heating/Cooling

Central Air
Wood Furnace

(12) Electric

Amps Service

No./Qual. of Fixtures: Ex. | X Ord. | Min

No. of Elec. Outlets: Many | X Ave. | Few

(13) Plumbing

1 Average Fixture(s)
- 3 Fixture Bath
- 2 Fixture Bath
- Softener, Auto
- Softener, Manual
- Solar Water Heat
- No Plumbing
- Extra Toilet
- Extra Sink
- Separate Shower
- Ceramic Tile Floor
- Ceramic Tile Wains
- Ceramic Tub Alcove
- Vent Fan

(14) Water/Sewer
- Public Water
- Public Sewer
- 1 Water Well
- 1 1000 Gal Septic
- 2000 Gal Septic

Lump Sum Items:

(15) Built-ins

1 Appliance Allow.
- Cook Top
- Dishwasher
- Garbage Disposal
- Bath Heater
- Vent Fan
- Hot Tub
- Unvented Hood
- Vented Hood
- Intercom
- Jacuzzi Tub
- Jacuzzi repl.Tub
- Oven
- Microwave
- Standard Range
- Self Clean Range
- Sauna
- Trash Compactor
- Central Vacuum
- Security System

(15) Fireplaces
- Interior 1 Story
- Interior 2 Story
- 2nd/Same Stack
- Two Sided
- Exterior 1 Story
- Exterior 2 Story
- Prefab 1 Story
- Prefab 2 Story
- Heat Circulator
- Raised Hearth
- Wood Stove
- Direct-Vented Ga

Class: CD
Effec. Age: 15
Floor Area: 1292
Total Base Cost: 72,521
Total Cost New : 87,751
Total Depr Cost: 75,218
Estimated T.C.V: 111,322

CntyMult X 1.210
E.C.F. X 1.480

(16) Porches/Decks

Area	Type
120	CGEP (1 Story)
68	CGEP (1 Story)

(17) Garage

Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
1	Story Siding	Basement	48.48	0.00	0.00	812	39,366
1.25	Story Siding	Mich Bsmnt.	56.22	-3.53	0.00	384	20,233

Other Additions/Adjustments	Rate	Size	Cost
(14) Water/Sewer			
Well, 100 Feet	2275.00	1	2,275
1000 Gal Septic	2495.00	1	2,495
(15) Built-Ins & Fireplaces			
Appliance Allowance	1260.00	1	1,260
(16) Porches			
CGEP (1 Story), Standard	42.49	68	2,889
Phy/Ab.Phy/Func/Econ/Comb.%Good= 85/100/100/100/85.0,		Depr.Cost =	70,471
Separately Depreciated Items:			
(16) Porches			
CGEP (1 Story), Standard	33.36	120	4,003
County Multiplier = 1.21 =>		Cost New =	4,844
Phy/Ab.Phy/Func/Econ/Comb.%Good= 98/100/100/100/98.0,		Depr.Cost =	4,747
		Total Depreciated Cost =	75,218
ECF (50 AGRICULTURAL)	1.480 => TCV of Bldg: 1 =		111,322

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-24-301-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 06/27/2007

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
10617 LAWRENCE RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD.-BOX 249
JACKSON MI 49202

Legal Description
NW 1/4 OF SW 1/4 EXC LD DESCD AS---BEG AT SE COR OF NW 1/4 OF SW 1/4 TH W ALG S 1/8 LN 8.5 RDS TH NLY 6.5 RDS TO A PT DISTANT 8.125 RDS W OF W 1/8 LN TH NELY 6.5 RDS TO PT 2 1/4 RDS W OF W 1/8 LN TH NELY 10 RDS TO W 1/8 LN TH S ALG W 1/8 LN 20 RDS M/L TO BEG. SEC 24 T4S R2E

Comments/Influences

Class: Agricultural | Zoning: RES

School: District 38040

P.R.E. 45% / /

Map #:

2008 Est TCV 174,624 TCV/TFA: 135.16

Building Permit(s)	Date	Number	Amount

X Improved | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Land Value Estimates for Land Table 51.AGRICULTURAL VACANT

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
AGRICULTUR AG SITE 5. 1-10	9.50 Acres		7113	100				67,574
	9.50 Total Acres				Total Est. Land Value =			67,574

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2008	33,787	53,525	87,312			24,093C
2007	33,787	54,157	87,944			24,093C
2006	73,664		73,664			23,234C
2005		70,838	70,838			22,492C

Who	When	What
WER	12/15/1994	Data Ent

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Information herein deemed reliable but not guaranteed

Building Type
X Single Family
Mobile Home
Town Home
Duplex
A-Frame

X Wood Frame

Building Style:
1 STORY

YearBuilt 0 | Remodeled

Condition for Age:
Good

Room List
Basement
1st Floor
2nd Floor
Bedrooms

(1) Exterior
X Wood/Shingle
Aluminum/Vinyl
Brick

Insulation

(2) Windows
X Many Ave. | X Large Ave.
Few | Small

Wood Sash
Metal Sash
Vinyl Sash
Double Hung
Horiz. Slide
Casement
Double Glass
Patio Doors
Storms&Screens

(3) Roof
X Gable | Gambrel
Hip | Mansard
Flat | Shed

X Asphalt Shingle

Chimney: Brick

(3) Roof (cont.)
Eavestrough
Insulation
0 Front Overhang
0 Other Overhang

(4) Interior
Drywall
Paneled
Plaster
Wood T&G

Trim & Decoration
Ex | X Ord | Min

Size of Closets
Lg | X Ord | Small

Doors | Solid | X H.C.

(5) Floors
Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation
Basement: 1196 S.F.
Crawl: 0 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement
Conc. Block
Poured Conc.
Stone
Treated Wood
Concrete Floor

(9) Basement Finish
Recreation SF
Living SF
Walkout Doors
No Floor SF

(10) Floor Support
Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling
X Gas | Oil | Elec.
Wood | Coal | Steam

X Forced Air w/o Ducts
Forced Air w/ Ducts
Forced Hot Water
Electric Baseboard
Elec. Ceil. Radient
Radiant (in-floor)
Electric Wall Heat
Space Heater
Wall/Floor Furnace
Forced Heat & Cool
Heat Pump
No Heating/Cooling

Central Air
Wood Furnace

(12) Electric
Amps Service

No./Qual. of Fixtures
Ex. | X Ord. | Min

No. of Elec. Outlets
Many | X Ave. | Few

(13) Plumbing
1 Average Fixture(s)
3 Fixture Bath
2 Fixture Bath
Softener, Auto
Softener, Manual
Solar Water Heat
No Plumbing
Extra Toilet
Extra Sink
Separate Shower
Ceramic Tile Floor
Ceramic Tile Wains
Ceramic Tub Alcove
Vent Fan

(14) Water/Sewer
Public Water
Public Sewer
1 Water Well
1 1000 Gal Septic
2000 Gal Septic

Lump Sum Items:

(15) Built-ins
1 Appliance Allow.
Cook Top
Dishwasher
Garbage Disposal
Bath Heater
Vent Fan
Hot Tub
Unvented Hood
Vented Rood
Intercom
Jacuzzi Tub
Jacuzzi repl.Tub
Oven
Microwave
Standard Range
Self Clean Range
Sauna
Trash Compactor
Central Vacuum
Security System

(15) Fireplaces
Interior 1 Story
Interior 2 Story
2nd/Same Stack
Two Sided
Exterior 1 Story
Exterior 2 Story
Prefab 1 Story
Prefab 2 Story
Heat Circulator
Raised Hearth
Wood Stove
Direct-Vented Ga

Class: CD
Effec. Age: 16
Floor Area: 1292
Total Base Cost: 72,521 CntyMult X 1.210
Total Cost New : 87,751 E.C.F.
Total Depr Cost: 74,340 X 1.440
Estimated T.C.V: 107,050

(16) Porches/Decks

Area	Type
120	CGEP (1 Story)
68	CGEP (1 Story)

(17) Garage
Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
1	Story Siding	Basement	48.48	0.00	0.00	812	39,366
1.25	Story Siding	Mich Bsmnt.	56.22	-3.53	0.00	384	20,233

Other Additions/Adjustments	Rate	Size	Cost
(14) Water/Sewer			
Well, 100 Feet	2275.00	1	2,275
1000 Gal Septic	2495.00	1	2,495
(15) Built-Ins & Fireplaces			
Appliance Allowance	1260.00	1	1,260
(16) Porches			
CGEP (1 Story), Standard	42.49	68	2,889
Phy/Ab.Phy/Func/Econ/Comb.%Good= 84/100/100/100/84.0,		Depr.Cost =	69,642
Separately Depreciated Items:			
(16) Porches			
CGEP (1 Story), Standard	33.36	120	4,003
County Multiplier = 1.21 =>		Cost New =	4,844
Phy/Ab.Phy/Func/Econ/Comb.%Good= 97/100/100/100/97.0,		Depr.Cost =	4,699
	Total Depreciated Cost =		74,340
ECF (50 AGRICULTURAL)	1.440 => TCV of Bldg: 1 =		107,050

Information herein deemed reliable but not guaranteed

Building Type
- X Single Family
- Mobile Home
- Town Home
- Duplex
- A-Frame

- X Wood Frame

Building Style: 1 STORY

YearBuilt	Remodeled
0	

Condition for Age: Good

Room List
- Basement
- 1st Floor
- 2nd Floor
- Bedrooms

(1) Exterior
- X Wood/Shingle
- Aluminum/Vinyl
- Brick
- Insulation

(2) Windows

X	Many Ave.		Large Ave.
	Few	X	Small

- Wood Sash
- Metal Sash
- Vinyl Sash
- Double Hung
- Horiz. Slide
- Casement
- Double Glass
- Patio Doors
- Storms&Screens

(3) Roof

X	Gable		Gambrel
	Hip		Mansard
	Flat		Shed

- X Asphalt Shingle

Chimney: Brick

(3) Roof (cont.)
- Eavestrough
- Insulation
- 0 Front Overhang
- 0 Other Overhang

(4) Interior

	Drywall		Plaster
	Paneled		Wood T&G

Trim & Decoration

	Ex	X	Ord	Min

Size of Closets

	Lg	X	Ord	Small

Doors		Solid	X	H.C.

(5) Floors

Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation

Basement: 1196 S.F.
Crawl: 0 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement
- Conc. Block
- Poured Conc.
- Stone
- Treated Wood
- Concrete Floor

(9) Basement Finish
- Recreation SF
- Living SF
- Walkout Doors
- No Floor SF

(10) Floor Support

Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling

X	Gas		Oil		Elec.
	Wood		Coal		Steam

- X Forced Air w/o Ducts
- Forced Air w/ Ducts
- Forced Hot Water
- Electric Baseboard
- Elec. Ceil. Radient
- Radiant (in-floor)
- Electric Wall Heat
- Space Heater
- Wall/Floor Furnace
- Forced Heat & Cool
- Heat Pump
- No Heating/Cooling

- Central Air
- Wood Furnace

(12) Electric

Amps Service

No./Qual. of Fixtures

Ex.	X	Ord.		Min

No. of Elec. Outlets

Many	X	Ave.		Few

(13) Plumbing

1	Average Fixture(s)
	3 Fixture Bath
	2 Fixture Bath
	Softener, Auto
	Softener, Manual
	Solar Water Heat
	No Plumbing
	Extra Toilet
	Extra Sink
	Separate Shower
	Ceramic Tile Floor
	Ceramic Tile Wains
	Ceramic Tub Alcove
	Vent Fan

(14) Water/Sewer

	Public Water
	Public Sewer
1	Water Well
1	1000 Gal Septic
	2000 Gal Septic

Lump Sum Items:

(15) Built-ins

1	Appliance Allow.
	Cook Top
	Dishwasher
	Garbage Disposal
	Bath Heater
	Vent Fan
	Hot Tub
	Unvented Hood
	Vented Hood
	Intercom
	Jacuzzi Tub
	Jacuzzi repl.Tub
	Oven
	Microwave
	Standard Range
	Self Clean Range
	Sauna
	Trash Compactor
	Central Vacuum
	Security System

(15) Fireplaces
- Interior 1 Story
- Interior 2 Story
- 2nd/Same Stack
- Two Sided
- Exterior 1 Story
- Exterior 2 Story
- Prefab 1 Story
- Prefab 2 Story
- Heat Circulator
- Raised Hearth
- Wood Stove
- Direct-Vented Ga

Class: CD
Effec. Age: 15
Floor Area: 1292
Total Base Cost: 72,521 CntyMult
Total Cost New : 87,751 X 1.210
Total Depr Cost: 75,218 B.C.F.
Estimated T.C.V: 108,314 X 1.440

(16) Porches/Decks

Area	Type
120	CGEP (1 Story)
68	CGEP (1 Story)

(17) Garage

Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
1	Story Siding	Basement	48.48	0.00	0.00	812	39,366
1.25	Story Siding	Mich Bsmnt.	56.22	-3.53	0.00	384	20,233

Other Additions/Adjustments	Rate	Size	Cost
(14) Water/Sewer			
Well, 100 Feet	2275.00	1	2,275
1000 Gal Septic	2495.00	1	2,495
(15) Built-Ins & Fireplaces			
Appliance Allowance	1260.00	1	1,260
(16) Porches			
CGEP (1 Story), Standard	42.49	68	2,889
Phy/Ab.Phy/Func/Econ/Comb.%Good= 85/100/100/100/85.0,		Depr.Cost =	70,471
Separately Depreciated Items:			
(16) Porches			
CGEP (1 Story), Standard	33.36	120	4,003
County Multiplier = 1.21 =>		Cost New =	4,844
Phy/Ab.Phy/Func/Econ/Comb.%Good= 98/100/100/100/98.0,		Depr.Cost =	4,747
	Total Depreciated Cost =		75,218
ECF (50 AGRICULTURAL)	1.440 => TCV of Bldg: 1 =		108,314

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-24-301-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 05/19/2008

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
10617 LAWRENCE RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD.-BOX 249
JACKSON MI 49202

Legal Description
NW 1/4 OF SW 1/4 EXC LD DESCD AS---BEG AT SE COR OF NW 1/4 OF SW 1/4 TH W ALG S 1/8 LN 8.5 RDS TH NLY 6.5 RDS TO A PT DISTANT 8.125 RDS W OF W 1/8 LN TH NELY 6.5 RDS TO PT 2 1/4 RDS W OF W 1/8 LN TH NELY 18 RDS TO W 1/8 LN TH S ALG W 1/8 LN 20 RDS M/L TO BEG. SEC 24 T4S R2E

Comments/Influences

Class: Agricultural | Zoning: RES

School: District 38040

P.R.E. 45% / /

Map #:

2008 Est TCV 117,339 TCV/TPA: 90.82

Building Permit(s)	Date	Number	Status

X Improved | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who When What

WER 12/15/1994 Data Ent

Land Value Estimates for Land Table 51.AGRICULTURAL VACANT

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
AGRICULTUR LOW SW/WW			9.50 Acres		950	100		9,025
			9.50 Total Acres		Total Est. Land Value =			9,025

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2008	4,510	83,430	87,940			24,647C
2007	33,787	54,157	87,944			24,093C
2006	73,664		73,664			23,234C
2005		70,838	70,838			22,492C

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Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-24-301-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 03/31/2010

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
10617 LAWRENCE RD

Owner's Name/Address
GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD.-BOX 249
JACKSON MI 49202

Description
NW 1/4 OF SW 1/4 EXC LD DESCD AS---BEG AT SE COR OF NW 1/4 OF SW 1/4 TH W ALG S 1/8 LN 8.5 RDS TH NLY 6.5 RDS TO A PT DISTANT 8.125 RDS W OF W 1/8 LN TH NELY 6.5 RDS TO PT 2 1/4 RDS W OF W 1/8 LN TH NELY 10 RDS TO W 1/8 LN TH S ALG W 1/8 LN 20 RDS M/L TO BEG. SEC 24 T4S R2E

Comments/Influences

Class: Agricultural | Zoning: RES

School: District 38040

P.R.E. 45% / /

Map #:

2010 Est TCV 171,303 TCV/TFA: 132.59

Building Permit(s)	Date	Number	Status

X Improved | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who	When	What
WER	12/15/1994	Data Ent

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Rate Table BUILDING SITE	2.00 Acres		15000		125			37,500
Rate Table PASTURE- 10-40A	7.50 Acres		3900		100			29,250
	9.50 Total Acres						Total Est. Land Value =	66,750

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2010	33,380	52,270	85,650			25,653C
2009	33,380	55,660	89,040			25,731C
2008	4,510	83,430	87,940			24,647C
2007	33,787	54,157	87,944			24,093C

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Information herein deemed reliable but not guaranteed

Building Type
X Single Family
Mobile Home
Town Home
Duplex
A-Frame

X Wood Frame

Building Style: 1 STORY

YearBuilt: 0 | Remodeled:

Condition for Age: Good

Room List
Basement
1st Floor
2nd Floor
Bedrooms

(1) Exterior
X Wood/Shingle
Aluminum/Vinyl
Brick
Insulation

(2) Windows
X Many Ave. | Few
X Large Ave. | Small
Wood Sash
Metal Sash
Vinyl Sash
Double Hung
Horiz. Slide
Casement
Double Glass
Patio Doors
Storms&Screens

(3) Roof
X Gable | Hip | Flat
Gambrel | Mansard | Shed
X Asphalt Shingle
Chimney: Brick

(3) Roof (cont.)
Eavestrough
Insulation
0 Front Overhang
0 Other Overhang

(4) Interior
Drywall Paneled | Plaster Wood T&G
Trim & Decoration: Ex | X Ord | Min
Size of Closets: Lg | X Ord | Small
Doors: Solid | X H.C.

(5) Floors
Kitchen:
Other:
Other:

(6) Ceilings

(7) Excavation
Basement: 1196 S.F.
Crawl: 0 S.F.
Slab: 0 S.F.
Height to Joists: 0.0

(8) Basement
Conc. Block
Poured Conc.
Stone
Treated Wood
Concrete Floor

(9) Basement Finish
Recreation SF
Living SF
Walkout Doors
No Floor SF

(10) Floor Support
Joists:
Unsupported Len:
Cntr.Sup:

(11) Heating/Cooling
X Gas | Wood | Oil | Coal | Elec. | Steam

X Forced Air w/o Ducts
Forced Air w/ Ducts
Forced Hot Water
Electric Baseboard
Elec. Ceil. Radient
Radiant (in-floor)
Electric Wall Heat
Space Heater
Wall/Floor Furnace
Forced Heat & Cool
Heat Pump
No Heating/Cooling

Central Air
Wood Furnace

(12) Electric
Amps Service
No./Qual. of Fixtures: Ex. | X Ord. | Min
No. of Elec. Outlets: Many | X Ave. | Few

(13) Plumbing
1 Average Fixture(s)
3 Fixture Bath
2 Fixture Bath
Softener, Auto
Softener, Manual
Solar Water Heat
No Plumbing
Extra Toilet
Extra Sink
Separate Shower
Ceramic Tile Floor
Ceramic Tile Wains
Ceramic Tub Alcove
Vent Fan

(14) Water/Sewer
Public Water
Public Sewer
1 Water Well
1 1000 Gal Septic
2000 Gal Septic

Lump Sum Items:

(15) Built-ins
1 Appliance Allow.
Cook Top
Dishwasher
Garbage Disposal
Bath Heater
Vent Fan
Hot Tub
Unvented Hood
Vented Hood
Intercom
Jacuzzi Tub
Jacuzzi repl.Tub
Oven
Microwave
Standard Range
Self Clean Range
Sauna
Trash Compactor
Central Vacuum
Security System

(15) Fireplaces
Interior 1 Story
Interior 2 Story
2nd/Same Stack
Two Sided
Exterior 1 Story
Exterior 2 Story
Prefab 1 Story
Prefab 2 Story
Heat Circulator
Raised Hearth
Wood Stove
Direct-Vented Ga

Class: CD
Effec. Age: 15
Floor Area: 1292
Total Base Cost: 72,521
Total Cost New : 87,751
Total Depr Cost: 75,218
Estimated T.C.V: 104,553

CntyMult
X 1.210
E.C.F.
X 1.390

(16) Porches/Decks

Area	Type
120	CGEP (1 Story)
68	CGEP (1 Story)

(17) Garage
Year Built:
Car Capacity:
Class:
Exterior:
Brick Ven.:
Stone Ven.:
Common Wall:
Foundation:
Finished ?:
Auto. Doors:
Mech. Doors:
Area:
% Good:
Storage Area:
No Conc. Floor:

Bsmnt Garage:

Carport Area:
Roof:

Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
1	Story Siding	Basement	48.48	0.00	0.00	812	39,366
1.25	Story Siding	Mich Bsmnt.	56.22	-3.53	0.00	384	20,233

Other Additions/Adjustments	Rate	Size	Cost
(14) Water/Sewer			
Well, 100 Feet	2275.00	1	2,275
1000 Gal Septic	2495.00	1	2,495
(15) Built-Ins & Fireplaces			
Appliance Allowance	1260.00	1	1,260
(16) Porches			
CGEP (1 Story), Standard	42.49	68	2,889
Phy/Ab.Phy/Func/Econ/Comb.%Good= 85/100/100/100/85.0,		Depr.Cost =	70,471
Separately Depreciated Items:			
(16) Porches			
CGEP (1 Story), Standard	33.36	120	4,003
County Multiplier = 1.21 =>		Cost New =	4,844
Phy/Ab.Phy/Func/Econ/Comb.%Good= 98/100/100/100/98.0,		Depr.Cost =	4,747
	Total Depreciated Cost =		75,218
ECF (AGRICULTURAL)	1.390 => TCV of Bldg: 1 =		104,553

Information herein deemed reliable but not guaranteed

FARM ASSESSMENT RECORD

000-. 4-276-00100

Jackson

000-23-12-275-001-00
TROLZ SLYNN A
3450 ANN ARBOR RD
JACKSON MI 49202

NE 1/4 of SE 1/4 - 40 A

E 1/2 of NE 1/4 - 47 A

Total 87A

3460 Ann Arbor Rd. Jackson, Mi.

10-30-75 45,000

PHYSICAL AND ECONOMIC FACTORS

Road

Center (name) ____ miles

(name) ____ miles

(type) ____ miles

☐ Electricity ☐ Telephone ☐ Gas Line

Insp 4/1/11 Jane

FRUIT

Type	Acres or No.	Age	Rate	Total
VACANT	87.A		$	$
LOW WOODS	14.91			
SWAMP	2.92			
BRUSH	69.17			

Total Fruit $

LAND VALUE

Area No.	No. Acres	Value/A.	Total
	86	$ 600	$ 51,600

Total Land $

91

87

ROLLING HILLS
GOOD CONSERVATION

AUSTIN RD

86 ACRES
VACANT

276-001-00
87A

SUMMARY OF APPRAISAL

TOTAL LAND . . . . . $

TOTAL FRUIT . . . . . $

TOTAL BUILDINGS . . . . . $

TOTAL APPRAISED VALUE . . . . . $

Board of Review	19 91	19	19	19 V
LAND	25,800			
BUILDINGS				
Total	81	86	89	90
State Tax Commission	36,000	29,000	32,000	28000
LAND				
BUILDINGS	41	93		
Total	V	(illegible)		

Type	Class	Acres
Cropland and untillable pasture	1	
	2	
	3	
	4	

1. Type
- Single Family

2. Frame
- Wood

3. Exterior
- Wood
- Aluminum
- Brick
- Block

4. Roof
- Hip
- Gable
- Front Overhang
- Other Overhang
- Eavestrough
- Chimney Type: Brick / Block / Stone / Metal
- Asphalt Shingles

5. Windows
- Many / Few
- Large / Small
- Wood Sash
- Metal Sash
- Double Hung
- Hor. Sliding
- Double Glass
- Complete Trim
- No Inside Trim
- Storms & Scr.

6. Year Built:

7. Year Remod.

8. Number Rooms
- Basement
- 1st Floor
- 2nd Floor
- Baths

9. Insulation
- Ceiling
- Entire
- None

10. Floor Support
- Joists " x " , " o.c.
- Unsupported Length ft.
- Sill Plate: ☐ Yes ☐ No
- Dbng. Sub-Floor " x "
- Ply. Sub-Floor " x "
- Center Support

11. Basement & Foundation
- Crawl Space s.f.
- Slab House s.f.
- Basement s.f.
- Height to Joists ft.
- Concrete Block "
- Concrete Walls "
- Concrete Floor
- Asphalt Tile s.f.
- Recreation Room s.f.

12. Heating & Air Conditioning
- Gas - Forced Warm Air
- Oil - Forced Warm Air
- Gas / Oil / Coal
- Wall Fur. / Floor Fur.
- Stove or Space Heat
- Steam Radiators
- Forced Warm Water
- AIR CONDITIONER tons
- FIREPLACE ft.

13. Interior
- Trim & Decoration: Elab. / Ord. / Min.
- Size of Closets: Large / Ord. / Small
- Number of Closets: Many / Ord. / Few
- No. & Qual. Electric Fixtures: Ex. / Ord. / Min.
- No. Electric Outlets: Many / Ord. / Few
- Foyer
- Kit. Fl.
- Other Fl.
- Drywall
- Plaster
- Coved Ceilings
- Paneled Wainscot
- Hardware Qual.

14. Plumbing
- No. of Baths $
- Cer. Tile Walls
- Cer. Tile Floor
- Plastic Tile Walls
- Extra Stool
- Extra Wash Bowl
- Water Heater: Gals. / Gas / Elec.

15. Built-In Items
- Oven Range $
- Disposal
- Hood & Fan
- Dishwasher
- Refrigerator
- Incinerator
- Vanities
- Cupboard Length
- Cupboard Quality

16. Garage
- Year Built
- Attached / Separate
- Cars / Condition
- Wide / Deep
- Walls
- Floor
- Doors
- Common Wall
- Other Walls
- Ceiling

17. Porches

Wide	Deep	Type

- Priced by
- Date
- Checked By
- Date

CLASS Size for Rates

Typical Classes of Other Houses in this Neighborhood

Neighborhood is ☐ Improving ☐ Stable ☐ Declining

Condition for Age

Effective Age

ITEM OR NO. STORIES	SQUARE FEET	UNIT COST	BASE VALUE	DEPR. & OBSOL. % GOOD	DEPR. VALUE
		$	$		$

Total Depr. Value $ _____

Econ. Cond. Factor x _____ %

True Cash Value $ _____

ACROSS FROM

Jackson County GIS - Interactive Mapping Application

Jackson County Map

Legend

- Remonuments
- Census 2000 Urban Areas
- Census 2000 Blocks
- Census 2000 Block Groups
- Census 2000 Tracts
- Major Road
- Section
- Quarter Section
- School
- Polling Locations
- Parcel

Reference Line
- Condominium Reference Line
- Landlock
- Parcel Reference Line
- Subdivision Reference Line
- Village Reference Line

Boundary
- Condominium
- Drain Centerline
- Drain Easement
- Highway Right of Way
- Hydrology
- Railroad Right of Way
- Right of Way Easement
- Road Right of Way
- Subdivision
- Utility Easement
- Vacated Right of Way

Disclaimer: Jackson County makes no representation, warranty or guarantee as to the content, accuracy, currency or completeness of the information provided. Jackson County explicitly disclaims any representations, warranties and guarantees, including, without limitation, the implied warranties of merchantability and suitability

Woods 14.91
Swamp - 2.92
Brush - 69.17

87A

Parcel Number: 000-20-12-276-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 04/27/2012

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
AUSTIN RD

Owner's Name/Address
TROLZ GLYNN A

3460 ANN ARBOR RD
JACKSON MI 49202

Description
E 1/2 OF NE 1/4 LYING S OF AUSTIN RD ALSO NE 1/4 OF SE 1/4. SEC 12 T4S R2E

Comments/Influences

The Equalizer. Copyright (c) 1999 - 2000. Licensed to: Norvell Township, Jackson County

Class: Agricultural Vaca | Zoning: RES
School: District 81080
P.R.E. 100% / /
Map #:
2012 Est TCV 276,041

Building Permit(s)	Date	Number	Status

Improved | X | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who	When	What
JG	04/02/2011	Data Ent
JG	04/01/2011	Inspecte

Land Value Estimates for Land Table 00050.50 AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
Rate Table +40 - 80 ACRES	69.17 Acres		3750		100			259,387
Rate Table SW/WW - 10-40A	2.92 Acres		950		100			2,774
Rate Table ROAD R/W	0.30 Acres		0		100			
Rate Table SW/WW - 10-40A	14.61 Acres		950		100			13,879
	87.00 Total Acres						Total Est. Land Value =	276,041

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2012	138,020		138,020			41,210C
2011	131,110		131,110			40,127C
2010	146,090		146,090			39,457C
2009	152,680		152,680			39,576C

Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-12-276-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 03/29/2010

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
AUSTIN RD

Owner's Name/Address
TROLZ GLYNN A

3460 ANN ARBOR RD
JACKSON MI 49202

Description
E 1/2 OF NE 1/4 LYING S OF AUSTIN RD ALSO NE 1/4 OF SE 1/4. SEC 12 T4S R2E

Comments/Influences

Class: Agricultural Vaca Zoning: RES
School: District 81080
P.R.E. 100% / /
Map #:
2010 Est TCV 292,188

Building Permit(s)	Date	Number	Status

Improved | X | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who When What

Land Value Estimates for Land Table 51.AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
AGRICULTUR +80 - 100 ACRES	52.70 Acres		3300		125			217,388
AGRICULTUR PASTURE	34.00 Acres		2200		100			74,800
AGRICULTUR ROAD R/W	0.30 Acres		0		100			
	87.00 Total Acres				Total Est. Land Value =			292,188

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2010	146,090		146,090			39,457C
2009	152,680		152,680			39,576C
2008	145,010		145,010			37,909C
2007	145,006		145,006			37,057C

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Information herein deemed reliable but not guaranteed

Parcel Number: 1-00 Jurisdiction: NORVELL County: JACKSON Printed on 03/10/2009

Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
AUSTIN RD

Owner's Name/Address
TROLZ GLYNN A

3460 ANN ARBOR RD
JACKSON MI 49202

Legal Description
E 1/2 OF NE 1/4 LYING S OF AUSTIN RD ALSO NE 1/4 OF SE 1/4. SEC 12 T4S R2E

Comments/Influences

Class: Agricultural Vaca Zoning: RES
School: District 81080
P.R.E. 100% / /
Map #:
2009 Est TCV 305,363

Building Permit(s)	Date	Number	Status

Improved | X | Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Who When What

Land Value Estimatee for Land Table 51.AGRICULTURAL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
AGRICULTUR +80 - 100 ACRES	52.70 Acres		3500	125				230,563
AGRICULTUR PASTURE	34.00 Acres		2200	100				74,800
AGRICULTUR ROAD R/W	0.30 Acres		0	100				
	87.00 Total Acres				Total Est. Land Value =			305,363

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2009	152,680		152,680			39,576C
2008	145,010		145,010			37,909C
2007	145,006		145,006			37,057C
2006	132,328		132,328			35,735C

The Equalizer. Copyright (c) 1999 - 2000. Printed to Norvell Township, Jackson County

Information herein deemed reliable but not guaranteed

X

Parcel Number: 000-20-12-276-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 04/14/2008

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
AUSTIN RD

Owner's Name/Address
TROLZ GLYNN A

3460 ANN ARBOR RD
JACKSON MI 49202

Legal Description
E 1/2 OF NE 1/4 LYING S OF AUSTIN RD ALSO NE 1/4 OF SE 1/4. SEC 12 T4S R2E

Comments/Influences

Class: Agricultural Vaca Zoning: RES

School: District 81080

P.R.E. 100% / /

Map #:

2008 Est TCV 290,012

Building Permit(s)	Date	Number	Status

Improved	X	Vacant

Public Improvements

- Dirt Road
- Gravel Road
- Paved Road
- Storm Sewer
- Sidewalk
- Water
- Sewer
- Electric
- Gas
- Curb
- Street Lights
- Standard Utilities
- Underground Utils.

Topography of Site

- Level
- Rolling
- Low
- High
- Landscaped
- Swamp
- Wooded
- Pond
- Waterfront
- Ravine
- Wetland
- Flood Plain

Land Value Estimates for Land Table 51.AGRICULTURAL VACANT

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
			87.000 Acres		0	100		
Flat Value:								290,012
			87.00 Total Acres		Total Est. Land Value =			290,012

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2008	145,010		145,010			37,909C
2007	145,006		145,006			37,057C
2006	132,328		132,328			35,735C
2005	127,251		127,251			34,594C

Who When What

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Information herein deemed reliable but not guaranteed

Parcel Number: 000-20-12-276-001-00 Jurisdiction: NORVELL County: JACKSON Printed on 05/21/2007

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
AUSTIN RD

Owner's Name/Address
TROLZ GLYNN A

3460 ANN ARBOR RD
JACKSON MI 49202

Legal Description
E 1/2 OF NE 1/4 LYING S OF AUSTIN RD ALSO NE 1/4 OF SE 1/4. SEC 12 T4S R2E

Comments/Influences

Class: Agricultural Vaca Zoning: RES
School: District 81080
P.R.E. 100% / /
Map #:
2007 Est TCV 290,012

Building Permit(s)	Date	Number	Amount

[ ] Improved [X] Vacant

Public Improvements

- [ ] Dirt Road
- [ ] Gravel Road
- [ ] Paved Road
- [ ] Storm Sewer
- [ ] Sidewalk
- [ ] Water
- [ ] Sewer
- [ ] Electric
- [ ] Gas
- [ ] Curb
- [ ] Street Lights
- [ ] Standard Utilities
- [ ] Underground Utils.

Topography of Site

- [ ] Level
- [ ] Rolling
- [ ] Low
- [ ] High
- [ ] Landscaped
- [ ] Swamp
- [ ] Wooded
- [ ] Pond
- [ ] Waterfront
- [ ] Ravine
- [ ] Wetland
- [ ] Flood Plain

Who When What

Land Value Estimates for Land Table 51.AGRICULTURAL VACANT

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
		87.000 Acres			0	100		
Flat Value:								290,012
		87.00 Total Acres			Total Est. Land Value =			290,012

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2007	145,006		145,006			37,057C
2006	132,328		132,328			35,735C
2005	127,251		127,251			34,594C
2004	122,507		122,507			33,817C

The Equalizer. Copyright (c) 1999 - 2000. Licensed to Norvell Township, Jackson County

Information herein deemed reliable but not guaranteed

[illegible]

FARM ASSESSMENT RECORD

COUNTY
TOWNSHIP NORVELL
OWNER GLYNN TROLZ
DESCRIPTION
CODE No. T12-1B
SECTION TOWN RANGE

3460 ANN ARBOR RD.
JACKSON, MI

PHYSICAL AND ECONOMIC FACTORS

Type of Road
Trading Center (name) miles
Market (name) miles
School (type) miles
☐ Electricity ☐ Telephone ☐ Gas Line

T12-1B	87	30,000

FRUIT

Type	Acres or No.	Age	Rate	Total
	87		$	$
CONS	86		400	34400
R/W	1			
PART OF A LARGER PARCEL				

Total Fruit $

PASTURED LAND
MORE
LIFE
CONSERV
BELLEFONTAINE
CARLISLE MUCK

LAND VALUE

Area No.	No. Acres	Value/A.	Total
		$	$

Total Land $

SUMMARY OF APPRAISAL

TOTAL LAND . . . . . $ 34,400
TOTAL FRUIT . . . . . .
TOTAL BUILDINGS . . . . . .
TOTAL APPRAISED VALUE . . . . . $

Board of Review	1981	19	19	19
LAND				
BUILDINGS				
Total	30,000			
State Tax Commission				
LAND				
BUILDINGS				
Total				

Type	Class	Acres
Cropland and untillable pasture	1	
	2	
	3	
	4	

Michigan Department of Treasury
T-1063 (5/94)

Issued under P.A. 331 of 1993, or P.A. 312 of 1993.
Filing is required if you wish to receive an exemption.

CLAIM FOR FARMLAND EXEMPTION FROM SOME SCHOOL OPERATING TAXES

Do you need to file this claim?

If you answer **"YES"** to either of these questions, you do NOT need to file this form.

- ➔ Is the property vacant and classified agricultural?
  (Note: Vacant property classified as agricultural is automatically exempt from some school taxes and the changes will be made on your next tax bill.)
- ➔ Have you already filed the *Homestead Exemption Affidavit* for this property?

If you answered "NO" to both of these questions and the property is used primarily for agricultural purposes but is not classified as agricultural, complete this form and file it with your local unit by **June 1, 1994.**

If your property has a residence or other buildings on it, your assessor may ask you to complete this form.

Section 1. File a separate claim for each qualified parcel.

1. Name of Owner (first, middle, last): GLYNN A. TROLZ
   Name of Co-Owner (first, middle, last):
   Street Address of Property Claimed: P. O. Box 249
   City and State: Jackson, MI
   ZIP Code: 49204-0249
   Name of Township/City Where Property is Located: Norvell
   County of Property: Jackson
   Check one: ☑ Township ☐ City

2. Enter below the property tax identification number of the qualified property you are claiming. This number is on your tax bill or your assessment notice. Start at the left and leave any extra spaces blank. Use a full space for any hyphens (-) in the number.

   0 0 0 - 2 0 - 1 2 - 2 7 6 - 0 0 1 - 0 0

Section 2: Farmland.

a. If this property is not classified as agricultural, is more than 50% of the acreage devoted to an agricultural use? (Skip this question if your property is classified agricultural.) ..... Yes ☐ No ☐

b. Does this property include any residences occupied by a person who is not involved in the agricultural operation? ..... Yes ☐ No ☐

c. If the property includes a residence, has the occupant filed a *Homestead Exemption Affidavit* for a different residence? ..... Yes ☐ No ☐

d. Does this property include any buildings not involved in the agricultural operation? ..... Yes ☐ No ☐

If you answered 'yes' to items 2b, 2c or 2d, part of your property does not qualify. You must enter a percentage in Section 3.

Section 3: Multi-Purpose Property. *If you answered 'yes' to item 2b, 2c or 2d, give the percentage of the property value that is devoted to agricultural use. Exclude from this percentage the value of any property that does not qualify (see instructions on back). This information is necessary for your township or city to adjust your property taxes properly. (See back for computation.)* .....

Certification: *This affidavit is invalid unless it is signed.*

I certify, under penalty of perjury, that I own (or co-own) the property claimed on this affidavit, that it is qualified agricultural property, and that all information is true to the best of my knowledge.

Owner's signature	Date	Co-owner's signature	Date
[signature]	5-26-94		

Norvell

LIBER 2028 PAGE 0349 1 of 2

STATE OF MICHIGAN - JACKSON COUNTY
Received 03/12/2014 01:43:37 PM 2675937
Processed 03/12/2014 01:44:46 PM DQC
Amanda L. Riske , Clerk/Register of Deed

QUIT CLAIM DEED

Grantors, Gary Trolz and Julius J. Hoffman, as Co-Personal Representatives of the Estate of Glynn A. Trolz, deceased, File No. 98-88464-SE, Jackson County Probate Court, whose address is 3460 Ann Arbor Rd., Jackson, MI 49202, quit claim to Grantee, Glynn Trolz and Associates, Inc., a Michigan corporation, whose address is 3460 Ann Arbor Rd., Jackson, MI 49202, the following described premises situated in the Township of Norvell, County of Jackson, and State of Michigan:

2

Northeast quarter (NE ¼) of the Southeast quarter (SE ¼), of Section 12, Town 4 South, Range 2 East, Township of Norvell, containing 40 acres more or less, and the East one-half (E ½) of the Northeast quarter (NE ¼) of Section 12, Town 4 South, Range 2 East, lying South of the Austin Road, containing 47 acres of land more or less.

Parcel #: 000-20-12-276-001-00

for the sum of One and No/100 Dollar ($1.00). [Exempt from transfer tax pursuant to MCL §207.505(a); MCL §207.526(a).] This land is being transferred in the settlement of the Estate.

Grantors grant to Grantee the right to make all division(s) under §108 of the Land Division Act, Act No. 288 of the Public Acts of 1967. This property may be located within the vicinity of farmland or a farm operation. Generally accepted agricultural and management practices which may generate noise, dust, odors, and other associated conditions may be used and are protected by the Michigan Right to Farm Act.

Dated this 12th day of March, 2014.

ESTATE OF GLYNN A. TROLZ

By _____
Gary Trolz
Co-Personal Representative

By _____
Julius J. Hoffman
Co-Personal Representative

000-20-12-276-001-00

STATE OF MICHIGAN)
ss.
COUNTY OF JACKSON)

The foregoing instrument was acknowledged before me this 12th day of March, 2014, by Gary Trolz, Co-Personal Representative of the Estate of Glynn A. Trolz.

Judith C. Williams
Judith C. Williams
Notary Public,
Jackson County, Michigan
Acting in Jackson County, Michigan
My commission expires: 10-29-18

STATE OF MICHIGAN)
ss.
COUNTY OF JACKSON)

The foregoing instrument was acknowledged before me this 12th day of March, 2014, by Julius J. Hoffman, Co-Personal Representative of the Estate of Glynn A. Trolz.

Judith C. Williams
Judith C. Williams
Notary Public,
Jackson County, Michigan
Acting in Jackson County, Michigan
My commission expires: 10-29-18

SEND SUBSEQUENT BILLS TO:
Glynn Trolz and Associates, Inc.
3460 Ann Arbor Road
Jackson, MI 49202

DRAFTED BY
Catherine A. Jacobs
124 W. Allegan, Ste. 700
Lansing, Michigan 48933

Tax Parcel No. _____

Recording Fee _____

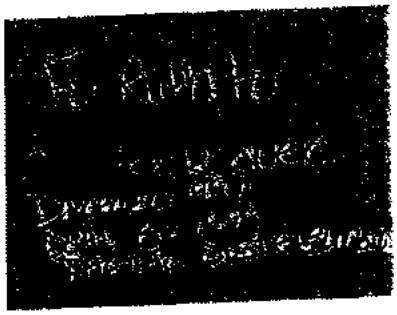
P.O. BOX 249
JACKSON MI 49204

RECEIVED
9/8/2014

LOOMIS

LOOMIS, EWERT, PARSLEY, DAVIS & GOTTING P.C.

ATTORNEYS AT LAW



JACK C. DAVIS PC
KARL L. GOTTING PLLC
JAMES R. NEAL
KENNETH W. BEALL PLLC
MICHAEL G. OLIVA
CATHERINE A. JACOBS
MICHAEL H. RHODES [1,2]
JEFFREY L. GREEN
JEFFREY S. THEUER[3]
KEVIN J. RORAGEN
RICHARD W. PENNINGS

TED S. ROZEBOOM
MICHAEL F. MATHESON[4]
SARA L. CUNNINGHAM[1]
TRACEY L. LACKMAN
JAMES F. ANDERTON, V[5]
MICHAEL G. STEFANKO[7]
MIEKE V. WEISSERT
LEAH J. BROOKS
WARREN H. KRUEGER, III
ELIZABETH HUSA BRIGGS[6]
DOMINIC R. RIOS

OF COUNSEL:
WILLIAM D. PARSLEY
MICHAEL A. HOLMES
PAULA K. MANIS PLLC[1,4,5]
KELLY REED LUCAS[8]
COLIN W. MAGUIRE

[1] ALSO LICENSED IN OH
[2] ALSO LICENSED IN PA
[3] ALSO LICENSED IN MD
[4] ALSO LICENSED IN IL
[5] ALSO LICENSED IN FL
[6] ALSO LICENSED IN NY
[7] ALSO CPA
[8] EASTWOOD OFFICE

August 28, 2014

Ms. Ruth A. Scott, Assessor of Record
Norvell Township
PO Box 385
Norvell, Michigan 49263-0188

Re: Transfers from Estate of Glynn Trolz, Glynn Trolz and Associates to G.T. Ranch LLC

Dear Ms. Scott:

I am writing this letter to follow through on discussions regarding the tax exemptions for transfers between the above entities.

The following parcels were transferred from the Estate of Glynn A. Trolz to Glynn Trolz and Associates, Inc.:

000-20-12-251-002-00
000-20-12-276-001-00

Those properties were then transferred from Glynn Trolz and Associates to GT Ranch, LLC

In addition, the following parcels were transferred from Glyn Trolz and Associates to GT Ranch, LLC.

000-20-12-101-001-00
000-20-12-176-001-00
000-20-12-251-001-00
000-20-12-251-002-00

LANSING OFFICE:
124 W. ALLEGAN STREET, SUITE 700
LANSING, MI 48933-1784
517-482-2400

EASTWOOD OFFICE:
2400 LAKE LANSING ROAD, SUITE E
LANSING, MI 48912-3674
517-485-0400

000-20-12-376-001-00
000-20-12-376-001-00

000-20-13-151-001-00
000-20-13-151-003-00
000-20-13-201-001-00
000-20-13-251-001-00
000-20-13-301-001-00
000-20-13-400-001-00

000-20-14-201-001-00
000-20-14-276-001-00
000-20-14-400-001-00
000-20-24-200-001-00
000-20-24-301-001-00
000-20-24-301-002-00
000-20-24-351-001-00

000-20-25-101-001-00

In my opinion, all of these parcels would be exempt from having the real estate taxes uncapped under two theories: 1) the properties are qualified agricultural property MCL 211.7dd; and 2) commonly controlled entities, MCL 211.27a(7)(1). The agricultural property exemption is clear. However, I want to give you the history of the corporations and individuals and the exemption under the commonly controlled entities theory.

The beneficiaries of the Estate of Glynn A. Trolz at the time of the transfers were Gary Trolz, Glynn Trolz, II, James Trolz and Lisa Hunt. Glynn Trolz and Associates had only one stockholder, Glynn A. Trolz, and therefore, when he died, the sole shareholder was the Estate of Glynn A. Trolz. Therefore, when the transfers occurred from the Estate of Glynn A. Trolz to Glynn Trolz and Associates, the control was the same individuals, the ultimate beneficiaries of the estate, Gary Trolz, Glynn Trolz II, James Trolz and Lisa Hunt. Glynn Trolz and Associates, Inc. then established GT Ranch, LLC and was the sole member of GT Ranch, LLC. Because the beneficiaries, Gary Trolz, Glynn Trolz, II, James Trolz and Lisa Hunt were vested owners of Glynn Trolz and Associates, Inc., they were the only vested owners of GT Ranch, LLC at the time the transfers occurred.

The State Tax Commission has directed that the Michigan Revenue Administrative Bulletin 1989-48 is to be used in determining whether entities are commonly controlled. The Michigan Revenue Administrative Bulletin 1989-48 and case law determining common control look to the owners of an entity to see if they are common and to the beneficiaries of trusts and estates, such as you have in this instance. Who is the trustee of a trust or personal representative of an estate is not the issue. The issue is who are the beneficiaries of these entities. In *Sebastian J. Mancuso Family Trust v City of Charlevoix COA, unpublished February 5, 2013,* the court

held that beneficiaries have an ownership interest in the property. Therefore, two entities with the same beneficiaries may constitute "commonly controlled" entities. This finding was based on the fact that although the trustee, or personal representative, has extensive control over the trust, or the estate, he or she is ultimately liable to the beneficiaries. The Michigan Tax Tribunal applied the *Mancuso Family Trust* decision and found that a trust (estate) and a partnership were legal entities which were commonly controlled by looking through to the beneficiaries of the trust (estate). The beneficiaries have the control of the trust and the trust was the sole owner of the partnership. In the case of the Trolz family, the beneficiaries of the Estate of Glynn A. Trolz were the ultimate owners of Glynn Trolz and Associates, Inc. and the ultimate owners of GT Ranch, LLC, which was solely owned by Glynn Trolz and Associates, Inc.

In my opinion, the transfers addressed in this letter are exempt under MCL 211.7dd and MCL 211.27a(7)(1). I do not recall if the proper documentation had been given to you at the time of recording. If the proper documents were not presented to you at the time of recording, please let me know and I will have them completed.

Very truly yours,

LOOMIS, EWERT, PARSLEY,
DAVIS & GOTTING, P.C.

Catherine A. Jacobs

Catherine A. Jacobs

cc: Gary Trolz

Allocated 9/30

#16-05

SPLIT/COMBINATION/REVISED LEGAL CHECKLIST

TOWNSHIP Norvell DATE 9/30/16

OLD PARENT(S)	Check Taxes	Liber & Page of Vesting Deed
000-20-12-176-001-00		

NEW PARENT(S)/CHILDREN	New Acreage	New Property Address
000-20-12-176-001-01	80.52	vacant
000-20-12-176-001-02	19.48	vacant

✓ COPY OF TWP APPROVAL

✓ COPY OF SURVEY (IF APPLICABLE)

✓ NEW DESCRIPTION(S)

_____ New Combination (make sure all entities are the same on parcels to be combined)

Submitted By: J. Caster

Real Estate Summary Sheet

Information herein deemed reliable but not guaranteed 09/30/2016 11:25 AM

Parcel:	000-20-12-176-001-00	**Current Class:**	102.AGRICULTURAL – VACANT
Owner's Name:	GT RANCH LLC (NOTE)	**Previous Class:**	102.AGRICULTURAL – VACANT
Property Address:	AUSTIN RD MANCHESTER, MI 48158	**Gov. Unit:**	10 NORVELL
		MAP #	
		School:	81080 MANCHESTER
		Neighborhood:	00017 AGRICULTURAL
Liber/Page:	PER PTA	**Created:**	/ /
Split:	/ /	**Active:**	Active
Public Impr.:	None		
Topography:	None		

Mailing Address:

GT RANCH LLC (NOTE)
3460 ANN ARBOR RD
JACKSON MI 49202

Description:

THE W 1/2 OF NE 1/4 OF NW 1/4 AND SE 1/4 OF NW 1/4 AND NE 1/4 OF SW 1/4. SEC 12 T4S R2E
Split on 09/30/2016 into 000-20-12-176-001-01, 000-20-12-176-001-02;

Most Recent Sale Information

Sold on 06/15/2016 for 0 by GLYNN TROLZ & ASSOC INC.

Terms of Sale: MUNICIPAL **Liber/Page:** PER PTA

Most Recent Permit Information

None Found

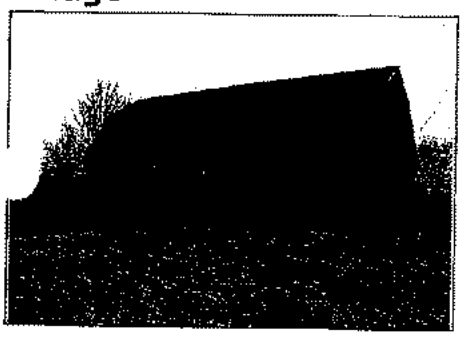
Physical Property Characteristics

2017 S.E.V.:	158,200	**2017 Taxable:**	46,792	**Lot Dimensions:**	
2016 S.E.V.:	148,500	**2016 Taxable:**	46,792	**Acreage:**	100.00
Zoning:	RES (*)	**Land Value:**	310,000	**Frontage:**	0.0
RE:	100.000 (Qual. Ag.)	**Land Impr. Value:**	0	**Average Depth:**	0.0

Improvement Data

of Agricultural Buildings: 1
Estimated TCV: 6,457
Cmts:

Image



Real Estate Summary Sheet

Information herein deemed reliable but not guaranteed 09/30/2016 11:54 AM

Parcel:	000-20-12-176-001-01	**Current Class:**	103.DNR-STC Value Assigned
Owner's Name:	MICHIGAN DEPT OF TREASURY	**Previous Class:**	102.AGRICULTURAL – VACANT
Property Address:	AUSTIN RD MANCHESTER, MI 48158	**Gov. Unit:**	10 NORVELL
		MAP #	
		School:	81080 MANCHESTER
		Neighborhood:	00017 AGRICULTURAL
Liber/Page:	2079-1232	**Created:**	09/30/2016
Split:	09/30/2016	**Active:**	Active
Public Impr.:	None		
Topography:	None		

Mailing Address:

MICHIGAN DEPT OF TREASURY
PAYMENT IN-LIEU-OF TAX PROGRAM
PO BOX 30722
LANSING MI 48909

Description:

THE W 1/2 OF NE 1/4 OF NW 1/4 AND SE 1/4 OF NW 1/4 AND NE 1/4 OF SW 1/4. EXC COM AT THE N 1/4 CORNER OF SEC 12 TH S83°47'19"W 642.54 FT ALG THE N LN OF SD SEC 12 TO THE E LN OF THE W 1/2 OF THE NE 1/4 OF THE NW 1/4 OF SD SEC 12 AND THE POB TH S1°7'26"E 1325.40 FT ALG SD E LN TO THE S LN OF THE NE 1/4 OF THE NW 1/4 OF SD SEC 12 TH S84°6'40"W 644.14 FT ALG SD S LN TO THE W LN OF THE NE 1/4 OF THE NW 1/4 OF SD SEC 12 TH N1°2'29"W 1321.93 FT ALG SD W LN TO THE N LN OF SD SEC 12 TH N83°47'19"E 642.54 FT ALG SD N LN TO THE BEG. SEC 12 T4S R2E SPLIT/COMBINED ON 09/30/2016 FROM 000-20-12-176-001-00;

Most Recent Sale Information

Sold on 06/15/2016 for 2,900,000 by GT RANCH LLC.

Terms of Sale: ARMS LENGTH **Liber/Page:** 2079-1232

Most Recent Permit Information

None Found

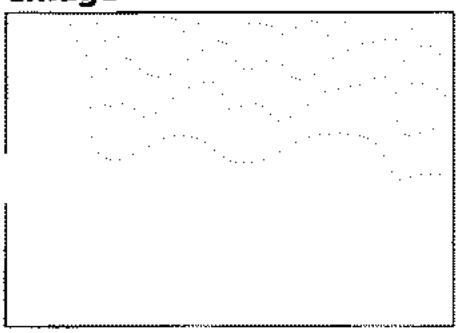
Physical Property Characteristics

2017 S.E.V.:	0	**2017 Taxable:**	0	**Lot Dimensions:**	
2016 S.E.V.:	0	**2016 Taxable:**	0	**Acreage:**	80.52
Zoning:	RES (*)	**Land Value:**	249,612	**Frontage:**	0.0
RE:	100.000 (Qual. Ag.)	**Land Impr. Value:**	0	**Average Depth:**	0.0

Improvement Data

None

Image



Real Estate Summary Sheet

Information herein deemed reliable but not guaranteed

09/30/2016 11:25 AM

Parcel:	000-20-12-176-001-02	**Current Class:**	101.AGRICULTURAL – IMPROVED
Owner's Name:	GT RANCH LLC	**Previous Class:**	102.AGRICULTURAL – VACANT
Property Address:	AUSTIN RD MANCHESTER, MI 48158	**Gov. Unit:**	10 NORVELL
		MAP #	
		School:	81080 MANCHESTER
		Neighborhood:	00017 AGRICULTURAL
Liber/Page:	PER PTA	**Created:**	/ /
Split:	/ /	**Active:**	Active
Public Impr.:	None		
Topography:	None		

Mailing Address:

GT RANCH LLC
3460 ANN ARBOR RD
JACKSON MI 49202

Description:

COM AT THE N 1/4 CORNER OF SEC 12 TH S83°47'19"W 642.54 FT ALG THE N LN OF SD SEC 12 TO THE E LN OF THE W 1/2 OF THE NE 1/4 OF THE NW 1/4 OF SD SEC 12 AND THE POB TH S1°7'26"E 1325.40 FT ALG SD E LN TO THE S LN OF THE NE 1/4 OF THE NW 1/4 OF SD SEC 12 TH S84°6'40"W 644.14 FT ALG SD S LN TO THE W LN OF THE NE 1/4 OF THE NW 1/4 OF SD SEC 12 TH N1°2'29"W 1321.93 FT ALG SD W LN TO THE N LN OF SD SEC 12 TH N83°47'19"E 642.54 FT ALG SD N LN TO THE BEG. SEC 12 T4S R2E
SPLIT ON 09/30/2016 FROM 000-20-12-176-001-00

Most Recent Sale Information

Sold on 06/15/2016 for 0 by GLYNN TROLZ & ASSOC INC.

Terms of Sale: MUNICIPAL **Liber/Page:** PER PTA

Most Recent Permit Information

None Found

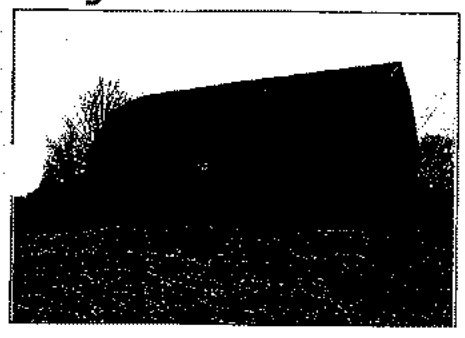
Physical Property Characteristics

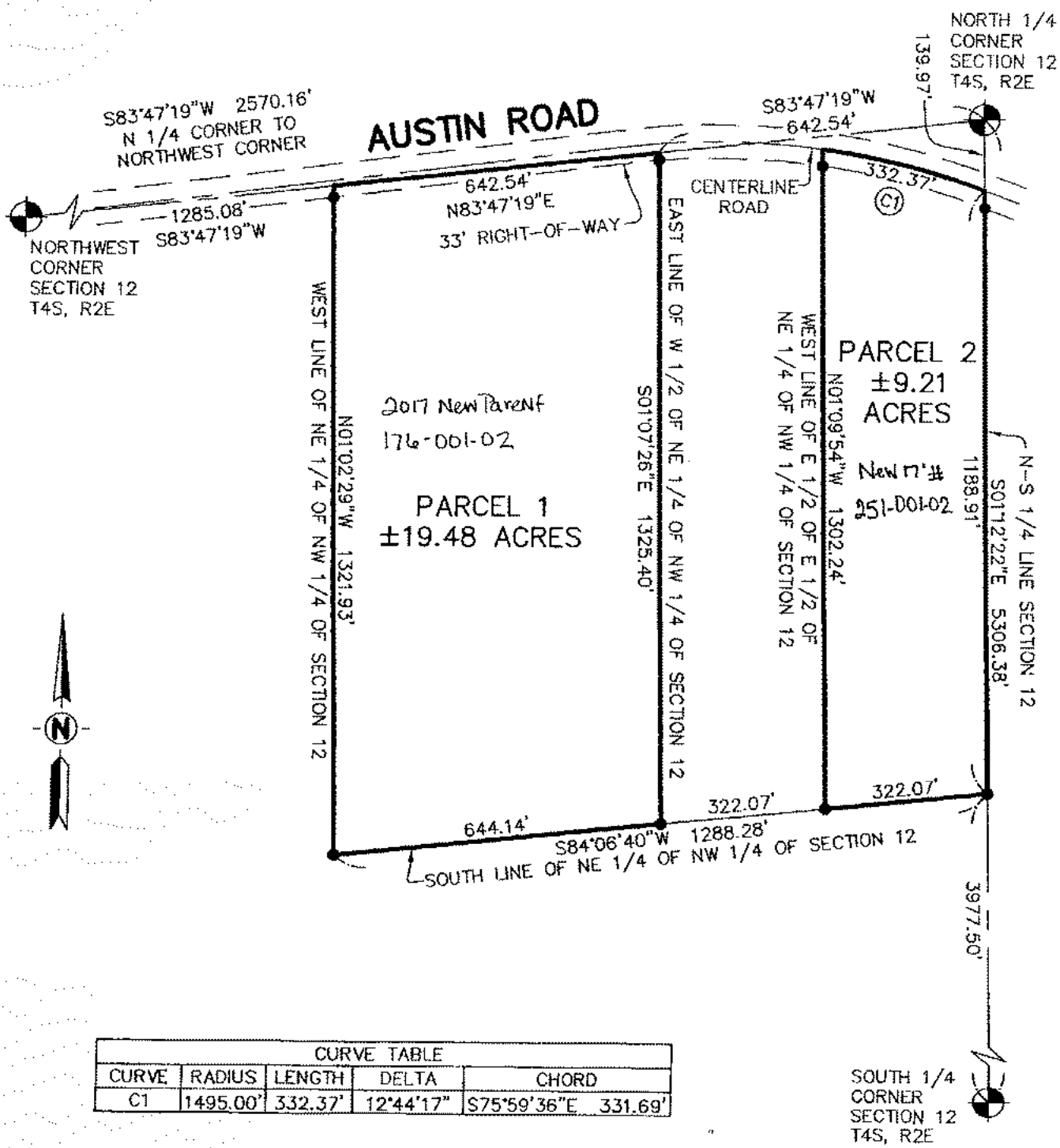
2017 S.E.V.:	37,600	**2017 Taxable:**	0	**Lot Dimensions:**	
2016 S.E.V.:	0	**2016 Taxable:**	0	**Acreage:**	19.48
Zoning:	RES (*)	**Land Value:**	68,667	**Frontage:**	0.0
RE:	100.000 (Qual. Ag.)	**Land Impr. Value:**	0	**Average Depth:**	0.0

Improvement Data

of Agricultural Buildings: 1
Estimated TCV: 6,457
Cmts:

Image





CURVE TABLE				
CURVE	RADIUS	LENGTH	DELTA	CHORD
C1	1495.00'	332.37'	12°44'17"	S75°59'36"E 331.69'

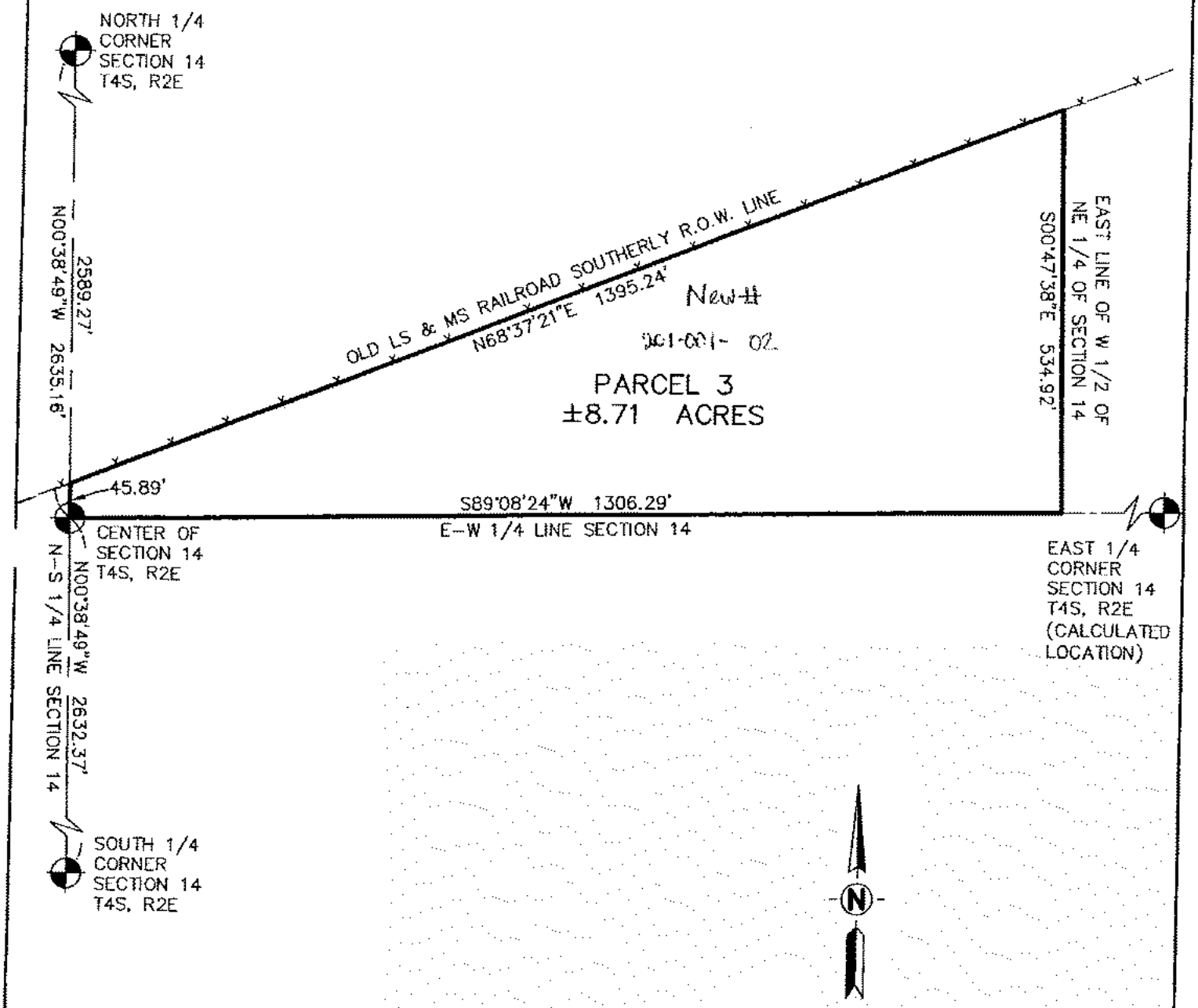
SCALE 1" = 300'

0 300' 600' 900'

LEGEND

- ● = Set 5/8" Bar with Cap
- □ = Found Iron as Noted
- ——— = Survey Boundary Line
- ——\/—— = Distance Not to Scale

KEBS, INC. KYES ENGINEERING BRYAN LAND SURVEYS
13432 PRESTON DRIVE, MARSHALL, MI 49068
PH. 269-781-9800 FAX. 269-781-9805



SCALE 1" = 200'

0 200' 400' 600'

LEGEND

- ● = Set 5/8" Bar with Cap
- □ = Found Iron as Noted
- ——— = Survey Boundary Line
- ——/\—— = Distance Not to Scale

KEBS, INC. KYES ENGINEERING BRYAN LAND SURVEYS
13432 PRESTON DRIVE, MARSHALL, MI 49068
PH. 269-781-9800 FAX. 269-781-9805

CERTIFICATE OF SURVEY:

I hereby certify only to the parties named hereon that we have surveyed, at the direction of said parties, the following described parcels of land, and that we have found or set, as noted hereon, permanent markers to all corners of said parcels and that all visible encroachments of a permanent nature upon said parcels are as shown on this survey.

PARCEL 1

A parcel of land located in the Northwest 1/4 of Section 12, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan being described as: Commencing at the North 1/4 Corner of Section 12, T4S, R2E; thence S83°47'19"W, 642.54 feet along the North line of said Section 12 to the East line of the West 1/2 of the Northeast 1/4 of the Northwest 1/4 of said Section 12 and the point of beginning of the following described parcel; thence S01°07'26"E, 1325.40 feet along said East line to the South line of the Northeast 1/4 of the Northwest 1/4 of said Section 12; thence S84°06'40"W, 644.14 feet along said South line to the West line of the Northeast 1/4 of the Northwest 1/4 of said Section 12; thence N01°02'29"W, 1321.93 feet along said West line to the North line of said Section 12; thence N83°47'19"E, 642.54 feet along said North line to the point of beginning; said parcel contains 19.48 acres, more or less; said parcel being subject to the rights of the public over and across that portion currently being used for road purposes; said parcel being subject to any easements or restrictions of use or record.

PARCEL 2

A parcel of land located in the Northwest 1/4 of Section 12, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan being described as: Commencing at the North 1/4 Corner of Section 12, T4S, R2E; thence S01°12'22"E, 139.97 feet along the North-South 1/4 line of said Section 12 to the Centerline of Austin Road and the point of beginning of the following described parcel; thence continuing S01°12'22"E, 1188.91 feet along the said North-South 1/4 line to the South line of the Northeast 1/4 of the Northwest 1/4 of said Section 12; thence S84°06'40"W, 322.07 feet along said South line to the West line of the East 1/2 of the East 1/2 of the Northeast 1/4 of the Northwest 1/4 of said Section 12; thence N01°09'54"W, 1302.24 feet along said West line to the centerline of Austin Road; thence Southeasterly 332.27 feet along said centerline along the arc of a curve to the left, said curve having a radius of 1495.00 feet, a delta angle of 12°44'17", and a chord bearing S75°59'36"E, 331.69 feet to the point of beginning; said parcel contains 9.21 acres, more or less; said parcel being subject to the rights of the public over and across that portion currently being used for road purposes; said parcel being subject to any easements or restrictions of use or record.

PARCEL 3

A parcel of land located in the Northeast 1/4 of Section 14, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan being described as: Commencing at the South 1/4 Corner of Section 14, T4S, R2E; thence N00°38'49"W, 2632.37 feet along the North-South 1/4 line of said Section 14 to the Center of said Section 14 and the point of beginning of the following described parcel; thence continuing N00°38'49"W, 45.89 feet along said North-South 1/4 line to the Old LS & MS Railroad Southerly right-of-way line; thence N68°37'21"E, 1395.24 feet along said right-of-way line to the East line of the West 1/2 of the Northeast 1/4 of said Section 14; thence S00°47'38"E, 534.92 feet along said East line to the East-West 1/4 line of said Section 14; thence S89°08'24"W, 1306.29 feet along said East-West 1/4 line to the point of beginning; said parcel contains 8.71 acres, more or less; said parcel being subject to any easements or restrictions of use or record.

KEBS, INC. KYES ENGINEERING BRYAN LAND SURVEYS
13432 PRESTON DRIVE, MARSHALL, MI 49068
PH. 269-781-9800 FAX. 269-781-9805

WITNESSES TO SECTION CORNERS:

Northwest Corner Section 12, Town 4 South, Range 2 East
Found concrete monument with Jackson County Remonumentation Cap LS 18658 in a monument box, 4.5' South of the centerline of Austin Road and in line with fences to the North and South. (L. 1501, P. 1131)

24" Maple	N65°E	83.42'
Concrete Post	S30°E	30.97'
RR Tie Post	North	32.25'
30" Maple	S85°W	231.95'
Survey Sign	South	24.2'

North 1/4 Corner Section 12, Town 4 South, Range 2 East
Found concrete monument with Jackson County Remonumentation Cap LS 29245. (L. 1580, P. 519)

20" Oak	West	74.76'
NW Cor. Garage	S02°W	14.56'
Utility Pole	N26°W	377.80'
Utility Pole	N18°E	504.54'

South 1/4 Corner Section 12, Town 4 South, Range 2 East
Found 5/8" rebar with cap in Oak Stump. (L. 2006, P. 1187)

42" Red Oak	N85°W	47.06'
8" Elm	N25°E	35.39'
18" Cherry	N70°E	72.57'
10" Cherry	S40°E	12.59'
30" Red Oak	S60°W	43.49'
RR Tie Post	South	231.10'

North 1/4 Corner Section 14, Town 4 South, Range 2 East
Found concrete monument with Jackson County Remonumentation Cap LS 18658. (L. 1549, P. 132)

16" Beech	S75°E	47.87'
9" Birch	S60°W	6.85'
18" W. Oak	S20°E	22.74'
18" Oak	N10°E	5.80'
30" Oak	S20°W	15.08'
18" W. Oak	S50°E	10.14'
Survey Sign	South	2'

South 1/4 Corner Section 14, Town 4 South, Range 2 East
Found concrete monument with Jackson County Remonumentation Cap LS 18658 in a monument box. (L. 1501, P. 1125)

14" Maple	S75°W	85.21'
12" Cherry	S45°W	38.06'
10" Maple	S45°E	42.79'
RR Tie Post	N15°E	69.23'

Center of Section 14, Town 4 South, Range 2 East
Set 5/8" rebar with KEBS cap #39079, no accessories available in vicinity of corner.

This survey complies with the requirements of Public Act 132 of 1970, as amended, and is subject to Public Act 591 of 1996, as amended, and was performed with an error of closure no greater than a ratio of 1 in 5000.

All bearings are derived from GPS observations.

Michael A. Groat Date:
Professional Surveyor No. 39079

KEBS, INC. KYES ENGINEERING BRYAN LAND SURVEYS
13432 PRESTON DRIVE, MARSHALL, MI 49068
PH. 269-781-9800 FAX. 269-781-9805

Parcel # 000-20-12-176-001-00

Unit # 10

Owner GT RANCH LLC Address AUSTIN RD

1. Delinquent Taxes | 2. Owner Info. | 3. Misc | 4. Comments | 5. Mail Tracking

Payoff Date: 09/30/2016 | Batch Payment

Year	Pay?	Base Tax	Tax Due	Interest/Fees	Total Due	Status	Last Paid
2015		1,341.29	0.00	0.00	0.00	PDC	02/17/2016
2014		1,317.40	0.00	0.00	0.00	PDC	02/18/2015
2013		1,230.91	0.00	0.00	0.00	PDC	02/14/2014
2012		1,202.07	0.00	0.00	0.00	PDC	02/11/2013
2011		1,175.62	0.00	0.00	0.00	PDC	02/10/2012
2010		1,150.79	0.00	0.00	0.00	PDC	02/14/2011
2009		1,154.62	0.00	0.00	0.00	PDC	02/12/2010
2008		1,105.97	0.00	0.00	0.00	PDC	02/16/2009
2007		1,102.61	0.00	0.00	0.00	PDC	02/06/2008
2006		1,063.69	0.00	0.00	0.00	PDC	02/12/2007
2005		1,032.43	0.00	0.00	0.00	PDC	02/13/2006
2004		1,051.61	0.00	0.00	0.00	PDC	02/25/2005
2003		948.08	0.00	0.00	0.00	PDC	02/16/2004
2002		916.78	0.00	0.00	0.00	PDC	03/06/2003
2001		877.04	0.00	0.00	0.00	PDC	02/15/2002
2000		710.73	0.00	0.00	0.00	PDC	02/16/2001
1998		0.00	0.00	0.00	0.00	PDC	/ /
1997		630.27	0.00	0.00	0.00	PDC	02/14/1998
1996		652.66	0.00	0.00	0.00	PDC	02/12/1997
1995		652.02	0.00	0.00	0.00	PDC	/ /

NORVELL TOWNSHIP
LAND DIVISION APPLICATION

Pursuant to the statutory authority granted by the Land Division Act of 1967, P.A. 288 as amended.

Application # 16-05

(Print or Type)

1. Name of Applicant GT RANCH, LLC Property ID# 000-20-12-176-001-00

THE PROPOSED DIVISION WILL NOT BE CONSIDERED IF APPLICATION IS INCOMPLETE

MINIMAL REQUIREMENTS FOR LAND DIVISION:

(APPLICANT SHALL CHECK OFF EACH ITEM)

- o Application Fee: $100 for the first division; $50 for each additional division.
- o Proof of ownership (Warranty Deed or Evidence of Fee Simple) is required.
- o If the applicant is not the titleholder of the property, a notarized letter is required from the owner(s).
- o Land divisions shall not be granted without verification that the real estate taxes are currently paid in full.
- o Completed application shall be returned 14 days prior to Township Board meeting.
- o For all land divisions less than ten (10) acres, the maximum depth to width ratio shall be not greater than 4:1.
- o Three (3) copies of a tentative parcel map drawn to scale (1"=50') showing the location and setback distances from all lot lines of each building and structure, including wells, septic systems, public utility easements, drains, wetlands, roads, etc., on the original parent parcel, and all newly created parcels. (Properties without buildings or structures can be drawn to scale (1"=200')
- o Each resulting parcel shall meet the minimum lot width, lot area and setback requirements of Section 5.1, and the lot building relationship of Section 5.7 of the Norvell Township Zoning Ordinance.
    - Lot Width: The width of the lot measured at the required front yard setback line, and extending to a depth at least equal to the minimum width requirement of the zoning district in which the lot is located.
    - Lot Area: The area within the lot lines, but excluding that portion in a road or street right-of-way, and/or lakes and streams.
    - Lot Building Relationship: Except in the case of an approved multiple-family development (district), there shall be no more than one (1) principal structure (Single Family Dwelling) located on each recorded parcel or lot in the Agricultural District and any Residential District.

- Each resulting parcel shall meet the requirements of Section 8.11, access to public streets, and the funneling Section 8.19.5. of the Norvell Township Zoning Ordinance.

  - Access to Public Streets: In any district, every use, building, or structure shall be on a lot or parcel which adjoins a public street. (Public Street: A public right-of-way which is certified and maintained by the Jackson County Road Commission.) Further, said frontage shall meet the land use requirements of Section 5.1 of the Norvell Township Zoning Ordinance.

  - Funneling: The use of an inland waterfront property, parcel, or lot contiguous to a body of water for access to such body of water.

ALL PARTIES CLAIMING AN INTEREST IN THE PROPERTY TO BE DIVIDED SHALL SIGN THIS APPLICATION

Date 1/22/16 Applicant(s) _____
Signature

_____ _____
Signature Signature

2. Address 3460 Ann Arbor Rd., Box 249 Phone (517) 764-0700
Street Home Business

Jackson MI 49204
City State Zip Code

3. Property Owner(s) Name (if different from Applicant) _____

4. Address _____ Phone _____
Street Home Business

_____
City State Zip Code

5. Road location of property to be divided Austin Road

6. Existing Zoning AG-1 Dates of Previous Divisions (if applicable) _____

7. Purpose of requested Land Division Sale to State of Michigan

- Name and address of the person(s) who will be responsible for payment of the real estate taxes for the newly created parcel(s) for the current and next calendar year. If no name is listed, the property tax notice will be sent to the last known property owner of record.

  Name STATE OF MICH Address _____

REQUIREMENTS FOR FINAL APPROVAL OF TOWNSHIP:

- For the land division to be considered in the next tax year, the final legal survey must be submitted and approved by the Township Assessor before tax day (December 31) of this year. (The last day the Township will accept this legal survey for review, is the 2nd Wednesday in December.)

- The term "exception" is prohibited when used to describe a new property description from the parent parcel or vice versa.

- Three (3) copies of a legal survey (prepared by a registered land surveyor) showing all existing building and structures shall be required for each land division and one for the remainder (the original parent parcel) before the split can be finalized.

- This Land Division permit will expire 180 days after approval of the Township Board, unless a legal survey for the proposed parcel is finalized by the Township Assessor.

- Did the parent parcel or parent tract have any unallocated divisions under the land division act, 1967 P.A. 288, MCL560.101 to 560.293? If so, how many?_____Date_____

- Were any unallocated divisions transferred to the newly created parcel? If so, how many?_____Date_____

I/We Gary Trolz _____ do hereby Swear that the above information is true and correct to the best of my/our knowledge. If any of the above information is found not to be true, this application and any approval will be void. I agree to comply with the Land Decision Act of 1967, P.A. 288, as amended, and the conditions and regulations provided with this parent parcel division. I understand and agree that the Township and its officers and employees shall not be liable for approving a land division if building permits for construction on the parcels are subsequently denied because of inadequate water supply or sewage disposal facilities or denial of an entrance driveway permit. If this division is approved, I understand zoning, local ordinances and State Acts change from time to time and, if changed, the divisions made here must comply with the new requirements (apply for division approval again) unless deeds, land contracts, leases, or surveys representing the approved divisions are recorded with the Register of Deeds or the division is built upon before the changes to laws are made.

FOR OFFICIAL USE

Fees received: $ 100.00

Date: 1-25-16 L. Miller
Signature

LOT PARTITIONING ACTION:

- Township Assessor: Preliminary review _____ Date _____
  Signature
- Land Division Committee: Approved, Tabled, Denied _____ Date _____
  Signature
- Township Board: Approved, Tabled, Denied _____ Date _____
  Signature
- Township Assessor: Final Approval of Legal Survey _____ Date _____
  Signature

LIBER 2029 PAGE 1077 1 of 2

STATE OF MICHIGAN - JACKSON COUNTY
Received 04/08/2014 01:39:52 PM 2677965
Processed 04/08/2014 01:42:27 PM DQC
Amanda L. Riska , Clerk/Register of Deed

QUIT CLAIM DEED

Grantor, Glynn Trolz and Associates, Inc., a Michigan corporation, whose address is 3460 Ann Arbor Rd., Jackson, MI 49202, quit claims to Grantee, GT Ranch, LLC, a Michigan limited liability company, whose address is 3460 Ann Arbor Rd., Jackson, MI 49202, the following described premises situated in the Township of Norvell, County of Jackson, and State of Michigan:

> The West one-half (1/2) of the Northeast quarter (1/4) of the Northwest quarter (1/4) and the Southeast quarter (1/4) of the Northwest quarter (1/4) and the Northeast quarter (1/4) of the Southwest quarter (1/4) of Section 12, Town 4 South, Range 2 East. 100 acres.

Parcel #000-20-12-176-001-00

for the sum of One and No/100 Dollar ($1.00). [Exempt from transfer tax pursuant to MCL §207.505(a); MCL §207.526(a).] This land is being transferred in the settlement of the Estate, and is subject to a certain mortgage dated March 14, 2014 to Union Bank.

Grantor grants to Grantee the right to make all division(s) under §108 of the Land Division Act, Act No. 288 of the Public Acts of 1967. This property may be located within the vicinity of farmland or a farm operation. Generally accepted agricultural and management practices which may generate noise, dust, odors, and other associated conditions may be used and are protected by the Michigan Right to Farm Act.

Dated this 15th day of March, 2014.

GLYNN TROLZ AND ASSOCIATES, INC.

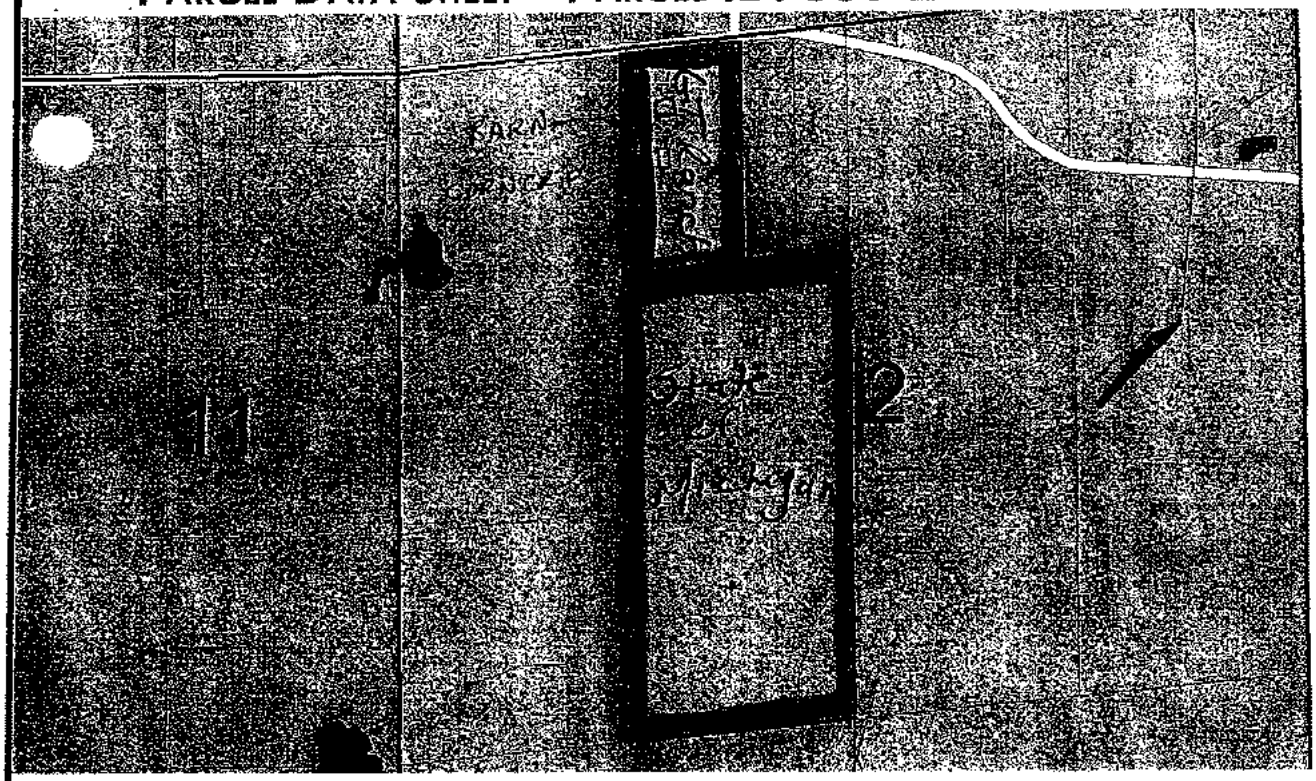
By _____
Gary Trolz, President

000-20-12-176-001-00 GT Ranch, LLC

Land Division Description of property to be Sold to State of Michigan

The SE ¼ of NW ¼ and NE ¼ of SW ¼.

PARCEL DATA SHEET - PARCEL ID: 000-20-12-176-001-00

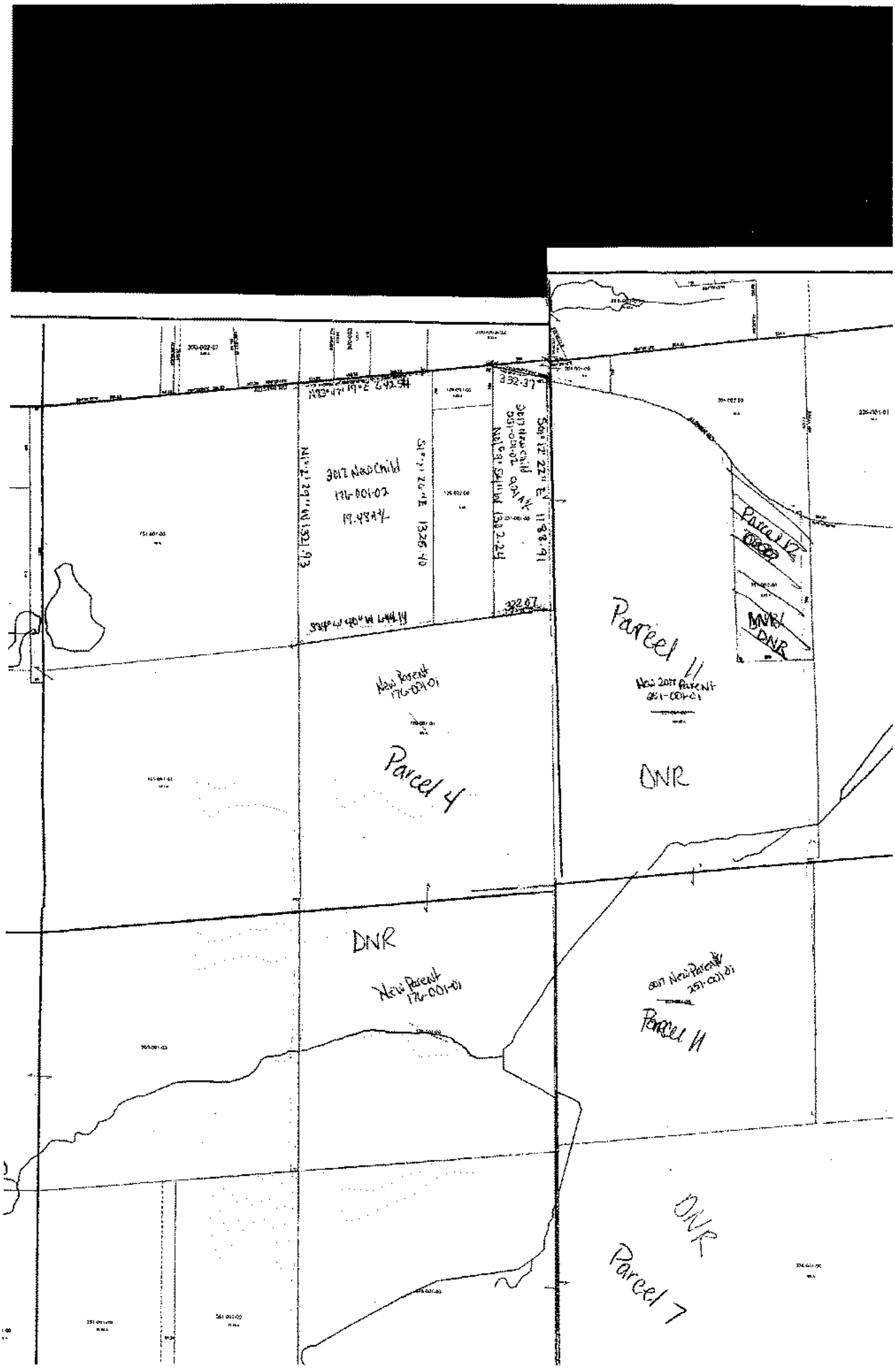


OWNER NAME	GT RANCH LLC
OWNER ADDRESS	3460 ANN ARBOR RD JACKSON MI 49202
HOMESTEAD	100%
PARCEL ADDRESS	AUSTIN RD JACKSON MI 49202
PROPERTY CLASS	102 - AGRICULTURAL VACANT
STATUS	Active
ACREAGE	100 Acres
GOV'T UNIT	Norvell
TAX UNIT	Norvell
SCHOOL DISTRICT	MANCHESTER SCHOOL
LIBER/PAGE	2029-1077

	2013	2014	2015
TAXABLE VALUE	$45,196	$45,919	$46,653
ASSESSED VALUE	$146,990	$160,050	$165,800

TAX DESCRIPTION
THE W 1/2 OF NE 1/4 OF NW 1/4 AND SE 1/4 OF NW 1/4 AND NE 1/4 OF SW 1/4. SEC 12 T4S R2E 100A

This generated map is provided to allow easy access and visual display of governmental information and services, as well as to information from other sources. Every reasonable effort has been made to ensure the accuracy of the maps and data provided; nevertheless, some information may not be accurate. The burden of determining the accuracy, timliness, completness, merchantability, and fitness or appropriateness of use rests solely on you, the user. The parcel data on this sheet was last updated on January 19, 2016.



2017 New Child
176-001-02
19.48 ±/-
Parcel 12
DNR
Parcel 11
New Parent
176-001-01
New 2017 Parent
251-001-01
Parcel 4
DNR
DNR
New Parent
176-001-01
2017 New Parent
251-001-01
Parcel 11
DNR
Parcel 7

arcel #: 000-20-12-176-001-00

Tax Year: 2015

Owner: **GT RANCH LLC**

Address: **AUSTIN RD**

ouble-click or hit the [ENTER] key to view details.

Quick Find... View Graph...

Tax Year	Season	Billed	Interest	Paid	Balance	Last Payment Date
2016	Summer	579.54	0.00	579.54	0.00	09/07/2016
2015	Winter	763.47	0.00	763.47	0.00	02/17/2016
2015	Summer	577.82	0.00	577.82	0.00	09/11/2015
2014	Winter	751.43	0.00	751.43	0.00	02/18/2015
2014	Summer	565.97	0.00	565.97	0.00	09/12/2014
2013	Winter	671.13	0.00	671.13	0.00	02/14/2014
2013	Summer	559.78	0.00	559.78	0.00	09/16/2013
2012	Winter	655.41	0.00	655.41	0.00	02/11/2013
2012	Summer	546.66	0.00	546.66	0.00	09/12/2012
2011	Winter	638.05	0.00	638.05	0.00	02/10/2012
2011	Summer	532.30	5.27	537.57	0.00	09/30/2011
2010	Winter	627.39	0.00	627.39	0.00	02/14/2011
2010	Summer	523.40	0.00	523.40	0.00	09/15/2010
2009	Winter	629.64	0.00	629.64	0.00	02/12/2010
2009	Summer	524.98	0.00	524.98	0.00	09/14/2009
2008	Winter	603.11	0.00	603.11	0.00	02/16/2009
2008	Summer	502.86	0.00	502.86	0.00	09/15/2008
2007	Winter	611.05	0.00	611.05	0.00	02/06/2008
2007	Summer	491.56	0.00	491.56	0.00	09/10/2007
2006	Winter	655.37	0.00	655.37	0.00	02/12/2007
2006	Summer	408.32	0.00	408.32	0.00	09/14/2006

JACKSON COUNTY
JUNE 20, 2016
RECEIPT # 857694

STATE OF MICHIGAN
REAL ESTATE TRANSFER TAX

$3,190.00- CO
$21,750.00- ST
STAMP # 74217

LIBER 2079 PAGE 1232 1 of 6

STATE OF MICHIGAN - JACKSON COUNTY
Received 06/20/2016 12:36:03 PM 2743120
Processed 06/20/2016 12:36:16 PM DW
Amanda L. Riska , Clerk/Register of Deed

JACKSON COUNTY TREASURER'S CERTIFICATE
No. 156950 Jackson, MI 6-20 2016
I HEREBY CERTIFY that there are no TAX LIENS or TITLES held by the State or any individual against the within description, and all TAXES on same are paid for five years previous to the date of this instrument, as appears by the records in this office except as stated

Karen A. Coffman CT

KAREN A. COFFMAN, County Treasurer
Sec. 135 Act 206, 1893 As Am

WARRANTY DEED

The Grantor, GT RANCH, LLC, a Michigan limited liability company, 3460 Ann Arbor Road, Jackson, Michigan 49294, conveys and warrants to the State of Michigan, P.O. Box 30448, Lansing, Michigan 48909-7948 all of its interest in the following described premises located in the Township of Norvell, County of Jackson, State of Michigan:

SEE ATTACHED RIDER A

for the full consideration of Two Million Nine Hundred Thousand and 00/100 Dollars ($2,900,000.00), subject to easements and building and use restrictions, if any, the lien of taxes not yet due and payable, and zoning ordinances.

The Grantor grants to the Grantee the right to make 18 legally permissible division(s) under Section 108 of the Land Division Act, Act 288 of the Public Acts of 1967, MCL 560.108, as amended.

This property may be located within the vicinity of farm land or a farm operation. Generally accepted agricultural and management practices which may generate noise, dust, odors, and other associated conditions may be used and are protected by the Michigan Right to Farm Act.

The terms of this conveyance shall extend to the administrators, successors and the assigns of the parties hereto.

Subject to easements, reservations and restrictions of record, if any.

Dated this 15th day of June, 2016

GRANTOR: GT RANCH, LLC

By: Gary Trolz
Its: Managing Member

STATE OF MICHIGAN)
) SS
COUNTY OF JACKSON)

The foregoing instrument was acknowledged before me this 15th day of JUNE, 2016, by Gary Trolz, as Managing Member of GT Ranch, LLC, who executed the same as his free act and deed.

Susan L. Bues, Notary Public
Jackson County, Michigan
Acting in Jackson County, MI
My Commission Expires: 10-23-19

000-20-13-151-003-00 EQ
000-20-14-276-001-00 EQ
PART OF 000-20-14-201-001-00 EQ
, -OF 000-20-12-176-001-00 EQ
PART OF 000-20-13-400-001-00 EQ
000-20-12-376-001-00 EQ

000-20-13-201-001-00 EQ
PART OF 000-20-13-251-001-00 EQ
PART OF 000-20-13-101-003-00 EQ
PART OF 000-20-12-251-001-00 EQ
000-20-12-251-002-00 EQ

14752

RIDER A

PROPERTY DESCRIPTION

The land referred to is described as follows:

[redacted]

Commencing at the Northwest corner of the Southwest 1/4 of Northwest 1/4 of Section 13, thence East along the North East-West 1/4, 1/4 section line of the Southwest 1/4 of Northwest 1/4 660 feet for a place of beginning, thence 90 degrees to the left to the North line of the LS & MS Railroad, thence Westerly along said North line to a point in the West North-South Section line of Section 13, (also called the West line of said Section 13) , thence South in said Section line to a point in the South line of the LS & MS Railroad, thence Northeasterly along said South line to a point in a line 660 feet East of the West North-South Section line of Section 13, thence North to the place of beginning, being a part of the West 1/2 of the Northwest 1/4 of Section 13, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan.

PARCEL 2: 000-20-14-276-001-00

Commencing at the Northeast corner of the Southeast 1/4 of the Northeast 1/4 of Section 14, thence South on the East Section line to a point on the North line of the LS & MS Railroad for a place of beginning, thence Southwesterly along said North line to the centerline of Fay Lake Highway, thence South on the centerline of the highway to a point on the South line of the LS & MS Railroad, thence Northeasterly along said South line to a point on the East Section line of Section 14, thence North on said line to the place of beginning, being a part of the South 1/2 of the Northeast 1/4 and Northeast 1/4 of Southwest 1/4 of Section 14, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan.

PARCEL 3: Part Of: 000-20-14-201-001-00

The Northeast 1/4 of the Northwest 1/4 and the West 1/2 of the Northeast 1/4 of Section 14, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan, excepting and reserving therefrom the land that is situated South of the South line of the railroad right of way of the LS & MS Railroad.

[redacted]

The Southeast 1/4 of the Northwest 1/4 and the Northeast 1/4 of the Southwest 1/4 of Section 12, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan.

PARCEL 5: N/A

SEE RIDER "A" CONTINUED

Allocated 9/30

#16-05

SPLIT/COMBINATION/REVISED LEGAL CHECKLIST

TOWNSHIP Norvell DATE 9/30/16

OLD PARENT(S)	Check Taxes	Liber & Page of Vesting Deed
000-20-12-176-001-00		

NEW PARENT(S)/CHILDREN	New Acreage	New Property Address
000-20-12-176-001-01	80.52	vacant
000-20-12-176-001-02	11.48	vacant

✓ COPY OF TWP APPROVAL

✓ COPY OF SURVEY (IF APPLICABLE)

✓ NEW DESCRIPTION(S)

_____ New Combination (make sure all entities are the same on parcels to be combined)

Submitted By: J. Casler

Real Estate Summary Sheet

Information herein deemed reliable but not guaranteed 09/30/2016 11:25 AM

Parcel:	000-20-12-176-001-00	**Current Class:**	102.AGRICULTURAL – VACANT
Owner's Name:	GT RANCH LLC (NOTE)	**Previous Class:**	102.AGRICULTURAL – VACANT
Property Address:	AUSTIN RD MANCHESTER, MI 48158	**Gov. Unit:**	10 NORVELL
		MAP #	
		School:	81080 MANCHESTER
		Neighborhood:	00017 AGRICULTURAL
Liber/Page:	PER PTA	**Created:**	/ /
Split:	/ /	**Active:**	Active
Public Impr.:	None		
Topography:	None		

Mailing Address:

GT RANCH LLC (NOTE)
3460 ANN ARBOR RD
JACKSON MI 49202

Description:

THE W 1/2 OF NE 1/4 OF NW 1/4 AND SE 1/4 OF NW 1/4 AND NE 1/4 OF SW 1/4. SEC 12 T4S R2E
Split on 09/30/2016 into 000-20-12-176-001-01, 000-20-12-176-001-02;

Most Recent Sale Information

Sold on 06/15/2016 for 0 by GLYNN TROLZ & ASSOC INC.

Terms of Sale: MUNICIPAL **Liber/Page:** PER PTA

Most Recent Permit Information

None Found

Physical Property Characteristics

2017 S.E.V.:	158,200	**2017 Taxable:**	46,792	**Lot Dimensions:**	
2016 S.E.V.:	148,500	**2016 Taxable:**	46,792	**Acreage:**	100.00
Zoning:	RES (*)	**Land Value:**	310,000	**Frontage:**	0.0
RE:	100.000 (Qual. Ag.)	**Land Impr. Value:**	0	**Average Depth:**	0.0

Improvement Data

of Agricultural Buildings: 1
Estimated TCV: 6,457
Cmts:

Image

Real Estate Summary Sheet

Information herein deemed reliable but not guaranteed 09/30/2016 11:54 AM

Parcel:	000-20-12-176-001-01	**Current Class:**	103.DNR-STC Value Assigned
Owner's Name:	MICHIGAN DEPT OF TREASURY	**Previous Class:**	102.AGRICULTURAL – VACANT
Property Address:	AUSTIN RD MANCHESTER, MI 48158	**Gov. Unit:** **MAP #**	10 NORVELL
		School:	81080 MANCHESTER
		Neighborhood:	00017 AGRICULTURAL
Liber/Page:	2079-1232	**Created:**	09/30/2016
Split:	09/30/2016	**Active:**	Active
Public Impr.:	None		
Topography:	None		

Mailing Address:

MICHIGAN DEPT OF TREASURY
PAYMENT IN-LIEU-OF TAX PROGRAM
PO BOX 30722
LANSING MI 48909

Description:

THE W 1/2 OF NE 1/4 OF NW 1/4 AND SE 1/4 OF NW 1/4 AND NE 1/4 OF SW 1/4. EXC COM AT THE N 1/4 CORNER OF SEC 12 TH S83°47'19"W 642.54 FT ALG THE N LN OF SD SEC 12 TO THE E LN OF THE W 1/2 OF THE NE 1/4 OF THE NW 1/4 OF SD SEC 12 AND THE POB TH S1°7'26"E 1325.40 FT ALG SD E LN TO THE S LN OF THE NE 1/4 OF THE NW 1/4 OF SD SEC 12 TH S84°6'40"W 644.14 FT ALG SD S LN TO THE W LN OF THE NE 1/4 OF THE NW 1/4 OF SD SEC 12 TH N1°2'29"W 1321.93 FT ALG SD W LN TO THE N LN OF SD SEC 12 TH N83°47'19"E 642.54 FT ALG SD N LN TO THE BEG. SEC 12 T4S R2E SPLIT/COMBINED ON 09/30/2016 FROM 000-20-12-176-001-00;

Most Recent Sale Information

Sold on 06/15/2016 for 2,900,000 by GT RANCH LLC.

Terms of Sale: ARMS LENGTH **Liber/Page:** 2079-1232

Most Recent Permit Information

None Found

Physical Property Characteristics

2017 S.E.V.:	0	**2017 Taxable:**	0	**Lot Dimensions:**	
2016 S.E.V.:	0	**2016 Taxable:**	0	**Acreage:**	80.52
Zoning:	RES (*)	**Land Value:**	249,612	**Frontage:**	0.0
AE:	100.000 (Qual. Ag.)	**Land Impr. Value:**	0	**Average Depth:**	0.0

Improvement Data

None

Image

Real Estate Summary Sheet

Information herein deemed reliable but not guaranteed 09/30/2016 11:25 AM

Parcel:	000-20-12-176-001-02	**Current Class:**	101.AGRICULTURAL – IMPROVED
Owner's Name:	GT RANCH LLC	**Previous Class:**	102.AGRICULTURAL – VACANT
Property Address:	AUSTIN RD MANCHESTER, MI 48158	**Gov. Unit:**	10 NORVELL
		MAP #	
		School:	81080 MANCHESTER
		Neighborhood:	00017 AGRICULTURAL
Liber/Page:	PER PTA	**Created:**	/ /
Split:	/ /	**Active:**	Active
Public Impr.:	None		
Topography:	None		

Mailing Address:

GT RANCH LLC
3460 ANN ARBOR RD
JACKSON MI 49202

Description:

COM AT THE N 1/4 CORNER OF SEC 12 TH S83°47'19"W 642.54 FT ALG THE N LN OF SD SEC 12 TO THE E LN OF THE W 1/2 OF THE NE 1/4 OF THE NW 1/4 OF SD SEC 12 AND THE POB TH S1°7'26"E 1325.40 FT ALG SD E LN TO THE S LN OF THE NE 1/4 OF THE NW 1/4 OF SD SEC 12 TH S84°6'40"W 644.14 FT ALG SD S LN TO THE W LN OF THE NE 1/4 OF THE NW 1/4 OF SD SEC 12 TH N1°2'29"W 1321.93 FT ALG SD W LN TO THE N LN OF SD SEC 12 TH N83°47'19"E 642.54 FT ALG SD N LN TO THE BEG. SEC 12 T4S R2E
SPLIT ON 09/30/2016 FROM 000-20-12-176-001-00

Most Recent Sale Information

Sold on 06/15/2016 for 0 by GLYNN TROLZ & ASSOC INC.

Terms of Sale: MUNICIPAL **Liber/Page:** PER PTA

Most Recent Permit Information

None Found

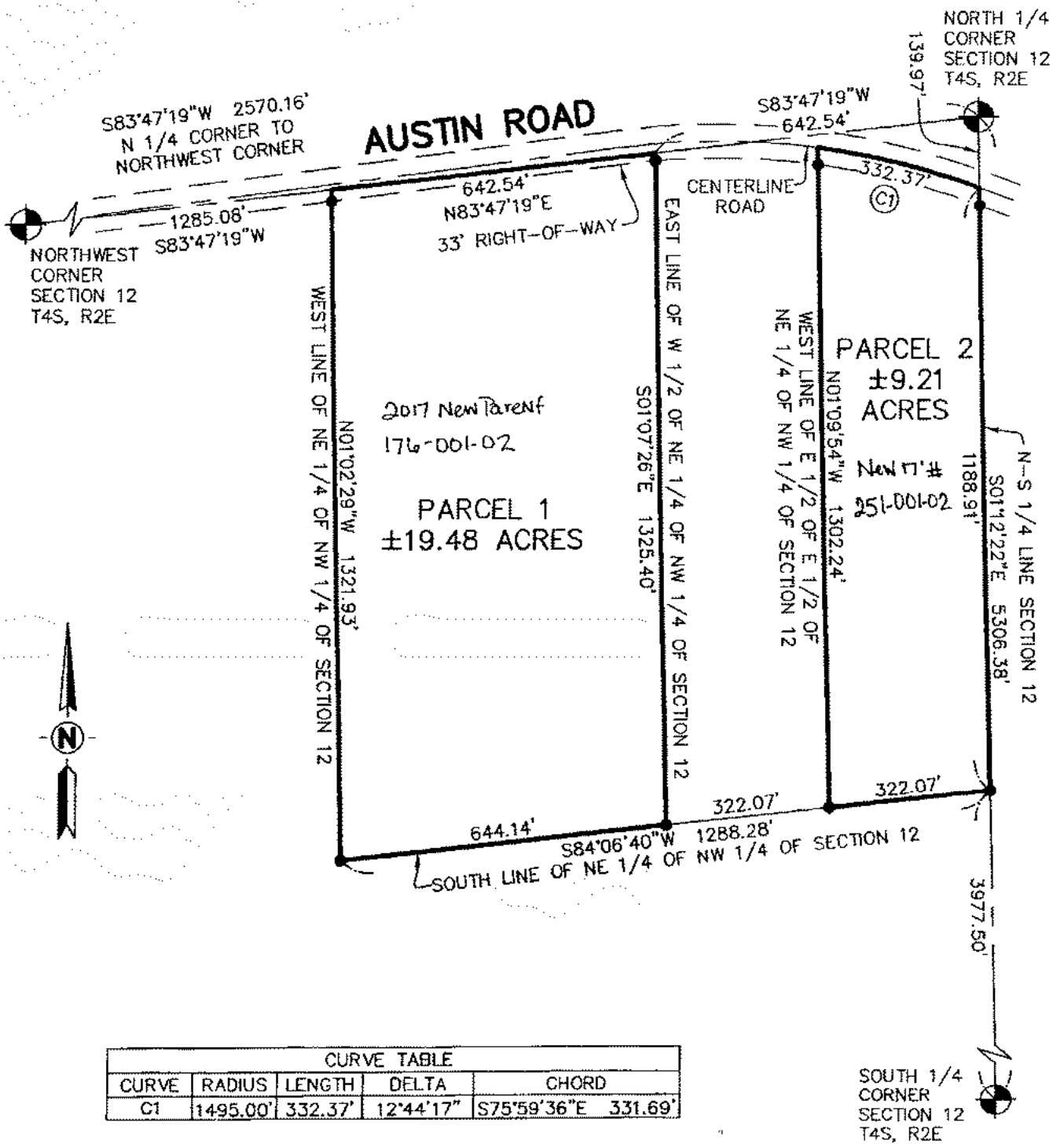
Physical Property Characteristics

2017 S.E.V.:	37,600	**2017 Taxable:**	0	**Lot Dimensions:**	
2016 S.E.V.:	0	**2016 Taxable:**	0	**Acreage:**	19.48
Zoning:	RES (*)	**Land Value:**	68,667	**Frontage:**	0.0
RE:	100.000 (Qual. Ag.)	**Land Impr. Value:**	0	**Average Depth:**	0.0

Improvement Data

of Agricultural Buildings: 1
Estimated TCV: 6,457
Cmts:

Image



CURVE TABLE				
CURVE	RADIUS	LENGTH	DELTA	CHORD
C1	1495.00'	332.37'	12°44'17"	S75°59'36"E 331.69'

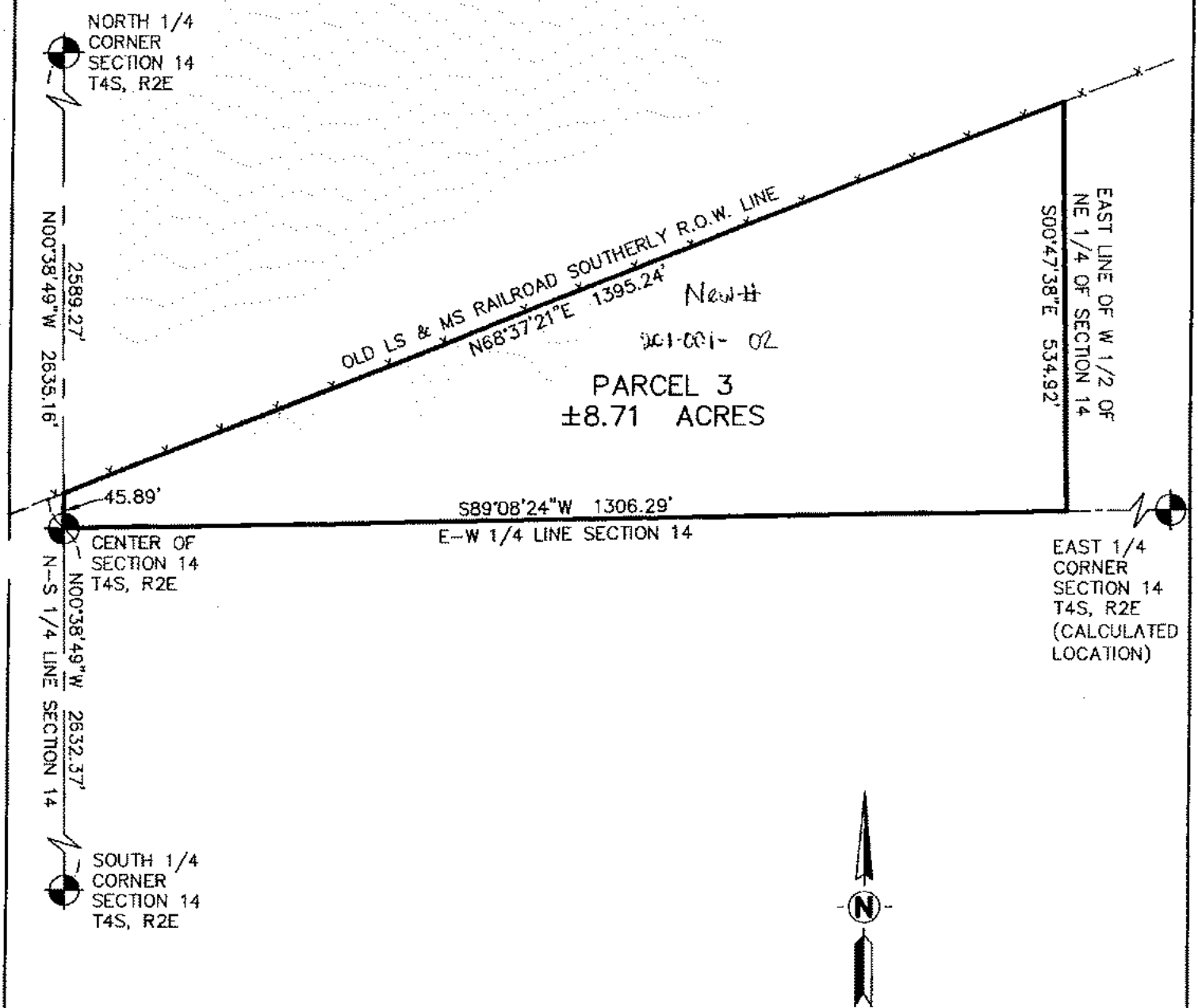
SCALE 1" = 300'

0 300' 600' 900'

LEGEND

- ● = Set 5/8" Bar with Cap
- □ = Found Iron as Noted
- ——— = Survey Boundary Line
- —/\— = Distance Not to Scale

KEBS, INC. KYES ENGINEERING BRYAN LAND SURVEYS
13432 PRESTON DRIVE, MARSHALL, MI 49068
PH. 269-781-9800 FAX. 269-781-9805



SCALE 1" = 200'

0 200' 400' 600'

LEGEND

- ● = Set 5/8" Bar with Cap
- □ = Found Iron as Noted
- ——— = Survey Boundary Line
- —/\/— = Distance Not to Scale

KEBS, INC. KYES ENGINEERING BRYAN LAND SURVEYS
13432 PRESTON DRIVE, MARSHALL, MI 49068
PH. 269-781-9800 FAX. 269-781-9805

CERTIFICATE OF SURVEY:

I hereby certify only to the parties named hereon that we have surveyed, at the direction of said parties, the following described parcels of land, and that we have found or set, as noted hereon, permanent markers to all corners of said parcels and that all visible encroachments of a permanent nature upon said parcels are as shown on this survey.

PARCEL 1

A parcel of land located in the Northwest 1/4 of Section 12, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan being described as: Commencing at the North 1/4 Corner of Section 12, T4S, R2E; thence S83°47'19"W, 642.54 feet along the North line of said Section 12 to the East line of the West 1/2 of the Northeast 1/4 of the Northwest 1/4 of said Section 12 and the point of beginning of the following described parcel; thence S01°07'26"E, 1325.40 feet along said East line to the South line of the Northeast 1/4 of the Northwest 1/4 of said Section 12; thence S84°06'40"W, 644.14 feet along said South line to the West line of the Northeast 1/4 of the Northwest 1/4 of said Section 12; thence N01°02'29"W, 1321.93 feet along said West line to the North line of said Section 12; thence N83°47'19"E, 642.54 feet along said North line to the point of beginning; said parcel contains 19.48 acres, more or less; said parcel being subject to the rights of the public over and across that portion currently being used for road purposes; said parcel being subject to any easements or restrictions of use or record.

PARCEL 2

A parcel of land located in the Northwest 1/4 of Section 12, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan being described as: Commencing at the North 1/4 Corner of Section 12, T4S, R2E; thence S01°12'22"E, 139.97 feet along the North-South 1/4 line of said Section 12 to the Centerline of Austin Road and the point of beginning of the following described parcel; thence continuing S01°12'22"E, 1188.91 feet along the said North-South 1/4 line to the South line of the Northeast 1/4 of the Northwest 1/4 of said Section 12; thence S84°06'40"W, 322.07 feet along said South line to the West line of the East 1/2 of the East 1/2 of the Northeast 1/4 of the Northwest 1/4 of said Section 12; thence N01°09'54"W, 1302.24 feet along said West line to the centerline of Austin Road; thence Southeasterly 332.27 feet along said centerline along the arc of a curve to the left, said curve having a radius of 1495.00 feet, a delta angle of 12°44'17", and a chord bearing S75°59'36"E, 331.69 feet to the point of beginning; said parcel contains 9.21 acres, more or less; said parcel being subject to the rights of the public over and across that portion currently being used for road purposes; said parcel being subject to any easements or restrictions of use or record.

PARCEL 3

A parcel of land located in the Northeast 1/4 of Section 14, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan being described as: Commencing at the South 1/4 Corner of Section 14, T4S, R2E; thence N00°38'49"W, 2632.37 feet along the North-South 1/4 line of said Section 14 to the Center of said Section 14 and the point of beginning of the following described parcel; thence continuing N00°38'49"W, 45.89 feet along said North-South 1/4 line to the Old LS & MS Railroad Southerly right-of-way line; thence N68°37'21"E, 1395.24 feet along said right-of-way line to the East line of the West 1/2 of the Northeast 1/4 of said Section 14; thence S00°47'38"E, 534.92 feet along said East line to the East-West 1/4 line of said Section 14; thence S89°08'24"W, 1306.29 feet along said East-West 1/4 line to the point of beginning; said parcel contains 8.71 acres, more or less; said parcel being subject to any easements or restrictions of use or record.

KEBS, INC. KYES ENGINEERING BRYAN LAND SURVEYS
13432 PRESTON DRIVE, MARSHALL, MI 49068
PH. 269-781-9800 FAX. 269-781-9805

WITNESSES TO SECTION CORNERS:

Northwest Corner Section 12, Town 4 South, Range 2 East
Found concrete monument with Jackson County Remonumentation Cap LS 18658 in a monument box, 4.5' South of the centerline of Austin Road and in line with fences to the North and South. (L. 1501, P. 1131)

24" Maple	N65°E	83.42'
Concrete Post	S30°E	30.97'
RR Tie Post	North	32.25'
30" Maple	S85°W	231.95'
Survey Sign	South	24.2'

North 1/4 Corner Section 12, Town 4 South, Range 2 East
Found concrete monument with Jackson County Remonumentation Cap LS 29245. (L. 1580, P. 519)

20" Oak	West	74.76'
NW Cor. Garage	S02°W	14.56'
Utility Pole	N26°W	377.80'
Utility Pole	N18°E	504.54'

South 1/4 Corner Section 12, Town 4 South, Range 2 East
Found 5/8" rebar with cap in Oak Stump. (L. 2006, P. 1187)

42" Red Oak	N85°W	47.06'
8" Elm	N25°E	35.39'
18" Cherry	N70°E	72.57'
10" Cherry	S40°E	12.59'
30" Red Oak	S60°W	43.49'
RR Tie Post	South	231.10'

North 1/4 Corner Section 14, Town 4 South, Range 2 East
Found concrete monument with Jackson County Remonumentation Cap LS 18658. (L. 1549, P. 132)

16" Beech	S75°E	47.87'
9" Birch	S60°W	6.85'
18" W. Oak	S20°E	22.74'
18" Oak	N10°E	5.80'
30" Oak	S20°W	15.08'
18" W. Oak	S50°E	10.14'
Survey Sign	South	2'

South 1/4 Corner Section 14, Town 4 South, Range 2 East
Found concrete monument with Jackson County Remonumentation Cap LS 18658 in a monument box. (L. 1501, P. 1125)

14" Maple	S75°W	85.21'
12" Cherry	S45°W	38.06'
10" Maple	S45°E	42.79'
RR Tie Post	N15°E	69.23'

Center of Section 14, Town 4 South, Range 2 East
Set 5/8" rebar with KEBS cap #39079, no accessories available in vicinity of corner.

This survey complies with the requirements of Public Act 132 of 1970, as amended, and is subject to Public Act 591 of 1996, as amended, and was performed with an error of closure no greater than a ratio of 1 in 5000.

All bearings are derived from GPS observations.

Michael A. Groat Date:
Professional Surveyor No. 39079

KEBS, INC. KYES ENGINEERING BRYAN LAND SURVEYS
13432 PRESTON DRIVE, MARSHALL, MI 49068
PH. 269-781-9800 FAX. 269-781-9805

Parcel # 000-20-12-176-001-00 Unit # 10

Owner GT RANCH LLC Address AUSTIN RD

1. Delinquent Taxes | 2. Owner Info. | 3. Misc | 4. Comments | 5. Mail Tracking

Payoff Date: 09/30/2016 Batch Payment

Year	Pay?	Base Tax	Tax Due	Interest/Fees	Total Due	Status	Last Paid
2015		1,341.29	0.00	0.00	0.00	PDC	02/17/2016
2014		1,317.40	0.00	0.00	0.00	PDC	02/18/2015
2013		1,230.91	0.00	0.00	0.00	PDC	02/14/2014
2012		1,202.07	0.00	0.00	0.00	PDC	02/11/2013
2011		1,175.62	0.00	0.00	0.00	PDC	02/10/2012
2010		1,150.79	0.00	0.00	0.00	PDC	02/14/2011
2009		1,154.62	0.00	0.00	0.00	PDC	02/12/2010
2008		1,105.97	0.00	0.00	0.00	PDC	02/16/2009
2007		1,102.61	0.00	0.00	0.00	PDC	02/06/2008
2006		1,063.69	0.00	0.00	0.00	PDC	02/12/2007
2005		1,032.43	0.00	0.00	0.00	PDC	02/13/2006
2004		1,051.61	0.00	0.00	0.00	PDC	02/25/2005
2003		848.08	0.00	0.00	0.00	PDC	02/16/2004
2002		916.78	0.00	0.00	0.00	PDC	03/05/2003
2001		877.04	0.00	0.00	0.00	PDC	02/15/2002
2000		710.73	0.00	0.00	0.00	PDC	02/16/2001
1998		0.00	0.00	0.00	0.00	PDC	/ /
1997		630.27	0.00	0.00	0.00	PDC	02/14/1998
1996		652.66	0.00	0.00	0.00	PDC	02/12/1997
1995		652.02	0.00	0.00	0.00	PDC	/ /

NORVELL TOWNSHIP
LAND DIVISION APPLICATION

Pursuant to the statutory authority granted by the Land Division Act of 1967, P.A. 288 as amended.

Application # 16-05

(Print or Type)

1. Name of Applicant GT RANCH, LLC Property ID# 000-20-12-176-001-00

THE PROPOSED DIVISION WILL NOT BE CONSIDERED IF APPLICATION IS INCOMPLETE

MINIMAL REQUIREMENTS FOR LAND DIVISION:

(APPLICANT SHALL CHECK OFF EACH ITEM)

- o Application Fee: $100 for the first division; $50 for each additional division.
- o Proof of ownership (Warranty Deed or Evidence of Fee Simple) is required.
- o If the applicant is not the titleholder of the property, a notarized letter is required from the owner(s).
- o Land divisions shall not be granted without verification that the real estate taxes are currently paid in full.
- o Completed application shall be returned 14 days prior to Township Board meeting.
- o For all land divisions less than ten (10) acres, the maximum depth to width ratio shall be not greater than 4:1.
- o Three (3) copies of a tentative parcel map drawn to scale (1"=50') showing the location and setback distances from all lot lines of each building and structure, including wells, septic systems, public utility easements, drains, wetlands, roads, etc., on the original parent parcel, and all newly created parcels. (Properties without buildings or structures can be drawn to scale (1"=200')
- o Each resulting parcel shall meet the minimum lot width, lot area and setback requirements of Section 5.1, and the lot building relationship of Section 5.7 of the Norvell Township Zoning Ordinance.
    - Lot Width: The width of the lot measured at the required front yard setback line, and extending to a depth at least equal to the minimum width requirement of the zoning district in which the lot is located.
    - Lot Area: The area within the lot lines, but excluding that portion in a road or street right-of-way, and/or lakes and streams.
    - Lot Building Relationship: Except in the case of an approved multiple-family development (district), there shall be no more than one (1) principal structure (Single Family Dwelling) located on each recorded parcel or lot in the Agricultural District and any Residential District.

- Each resulting parcel shall meet the requirements of Section 8.11, access to public streets, and the funneling Section 8.19.5. of the Norvell Township Zoning Ordinance.

  - Access to Public Streets: In any district, every use, building, or structure shall be on a lot or parcel which adjoins a public street. (Public Street: A public right-of-way which is certified and maintained by the Jackson County Road Commission.) Further, said frontage shall meet the land use requirements of Section 5.1 of the Norvell Township Zoning Ordinance.

  - Funneling: The use of an inland waterfront property, parcel, or lot contiguous to a body of water for access to such body of water.

ALL PARTIES CLAIMING AN INTEREST IN THE PROPERTY TO BE DIVIDED SHALL SIGN THIS APPLICATION

Date 1/22/16 Applicant(s) _____
Signature

_____ _____
Signature Signature

2. Address 3460 Ann Arbor Rd., Box 249 Phone (517) 764-0700
Street Home Business

Jackson MI 49204
City State Zip Code

3. Property Owner(s) Name (if different from Applicant) _____

4. Address _____ Phone _____
Street Home Business

_____
City State Zip Code

5. Road location of property to be divided Austin Road

6. Existing Zoning AG-1 Dates of Previous Divisions (if applicable) _____

7. Purpose of requested Land Division Sale to State of Michigan

- Name and address of the person(s) who will be responsible for payment of the real estate taxes for the newly created parcel(s) for the current and next calendar year. If no name is listed, the property tax notice will be sent to the last known property owner of record.

  Name STATE OF MICH. Address _____

REQUIREMENTS FOR FINAL APPROVAL OF TOWNSHIP:

- For the land division to be considered in the next tax year, the final legal survey must be submitted and approved by the Township Assessor before tax day (December 31) of this year. (The last day the Township will accept this legal survey for review, is the 2nd Wednesday in December.)

- The term "exception" is prohibited when used to describe a new property description from the parent parcel or vice versa.

- Three (3) copies of a legal survey (prepared by a registered land surveyor) showing all existing building and structures shall be required for each land division and one for the remainder (the original parent parcel) before the split can be finalized.

- This Land Division permit will expire 180 days after approval of the Township Board, unless a legal survey for the proposed parcel is finalized by the Township Assessor.

- Did the parent parcel or parent tract have any unallocated divisions under the land division act, 1967 P.A. 288, MCL560.101 to 560.293? If so, how many?_____ Date_____

- Were any unallocated divisions transferred to the newly created parcel? If so, how many?_____ Date_____

I/We Gary Trolz do hereby Swear that the above information is true and correct to the best of my/our knowledge. If any of the above information is found not to be true, this application and any approval will be void. I agree to comply with the Land Decision Act of 1967, P.A. 288, as amended, and the conditions and regulations provided with this parent parcel division. I understand and agree that the Township and its officers and employees shall not be liable for approving a land division if building permits for construction on the parcels are subsequently denied because of inadequate water supply or sewage disposal facilities or denial of an entrance driveway permit. If this division is approved, I understand zoning, local ordinances and State Acts change from time to time and, if changed, the divisions made here must comply with the new requirements (apply for division approval again) unless deeds, land contracts, leases, or surveys representing the approved divisions are recorded with the Register of Deeds or the division is built upon before the changes to laws are made.

FOR OFFICIAL USE

Fees received: $ 100.00

Date: 1-25-16 L. Miller
Signature

LOT PARTITIONING ACTION:

- Township Assessor: Preliminary review _____ Date _____
  Signature
- Land Division Committee: Approved, Tabled, Denied _____ Date _____
  Signature
- Township Board: Approved, Tabled, Denied _____ Date _____
  Signature
- Township Assessor: Final Approval of Legal Survey _____ Date _____
  Signature

STATE OF MICHIGAN - JACKSON COUNTY
Received 04/08/2014 01:39:52 PM 2677965
Processed 04/08/2014 01:42:27 PM DQC
Amanda L. Riska , Clerk/Register of Deed

QUIT CLAIM DEED

Grantor, Glynn Trolz and Associates, Inc., a Michigan corporation, whose address is 3460 Ann Arbor Rd., Jackson, MI 49202, quit claims to Grantee, GT Ranch, LLC, a Michigan limited liability company, whose address is 3460 Ann Arbor Rd., Jackson, MI 49202, the following described premises situated in the Township of Norvell, County of Jackson, and State of Michigan:

> The West one-half (1/2) of the Northeast quarter (1/4) of the Northwest quarter (1/4) and the Southeast quarter (1/4) of the Northwest quarter (1/4) and the Northeast quarter (1/4) of the Southwest quarter (1/4) of Section 12, Town 4 South, Range 2 East. 100 acres.

Parcel #000-20-12-176-001-00

for the sum of One and No/100 Dollar ($1.00). [Exempt from transfer tax pursuant to MCL §207.505(a); MCL §207.526(a).] This land is being transferred in the settlement of the Estate, and is subject to a certain mortgage dated March 14, 2014 to Union Bank.

Grantor grants to Grantee the right to make all division(s) under §108 of the Land Division Act, Act No. 288 of the Public Acts of 1967. This property may be located within the vicinity of farmland or a farm operation. Generally accepted agricultural and management practices which may generate noise, dust, odors, and other associated conditions may be used and are protected by the Michigan Right to Farm Act.

Dated this 15th day of March, 2014.

GLYNN TROLZ AND ASSOCIATES, INC.

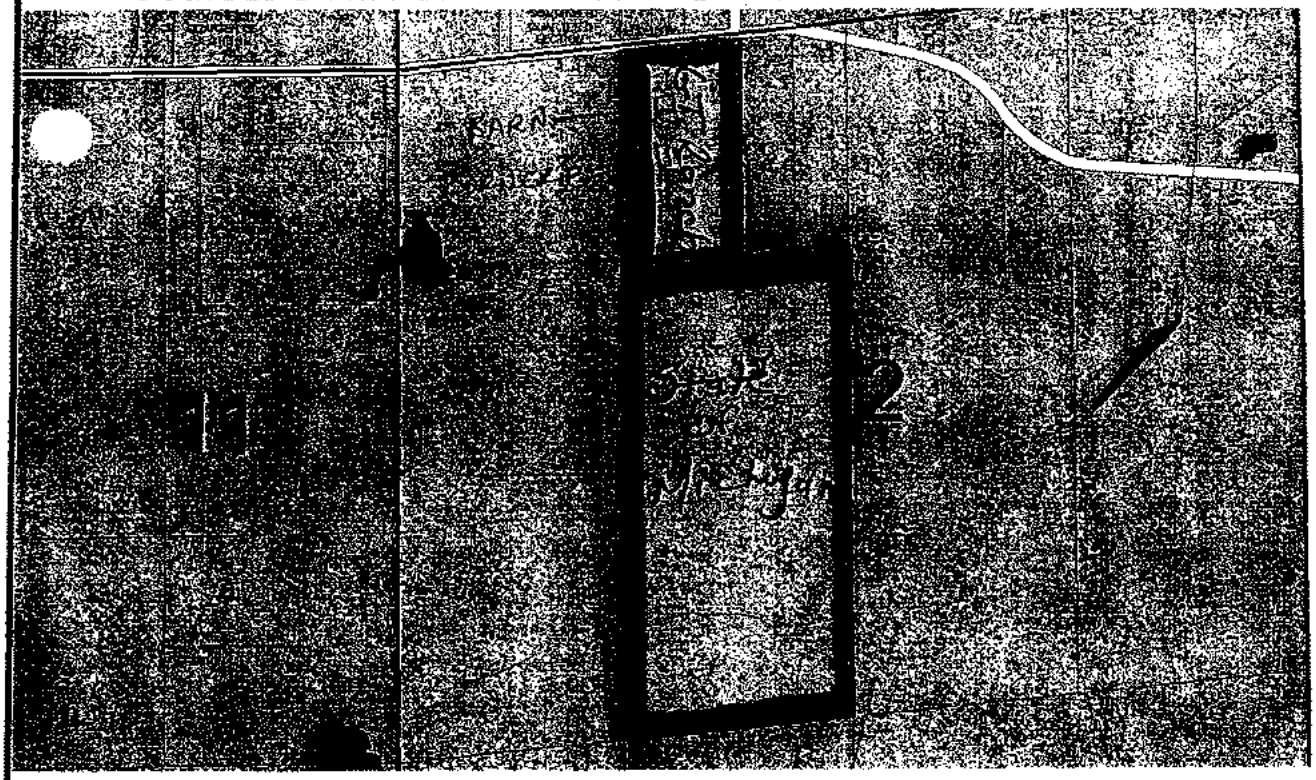
By _____
Gary Trolz, President

000-20-12-176-001-00 GT Ranch, LLC

Land Division Description of property to be Sold to State of Michigan

The SE ¼ of NW ¼ and NE ¼ of SW ¼.

PARCEL DATA SHEET - PARCEL ID: 000-20-12-176-001-00

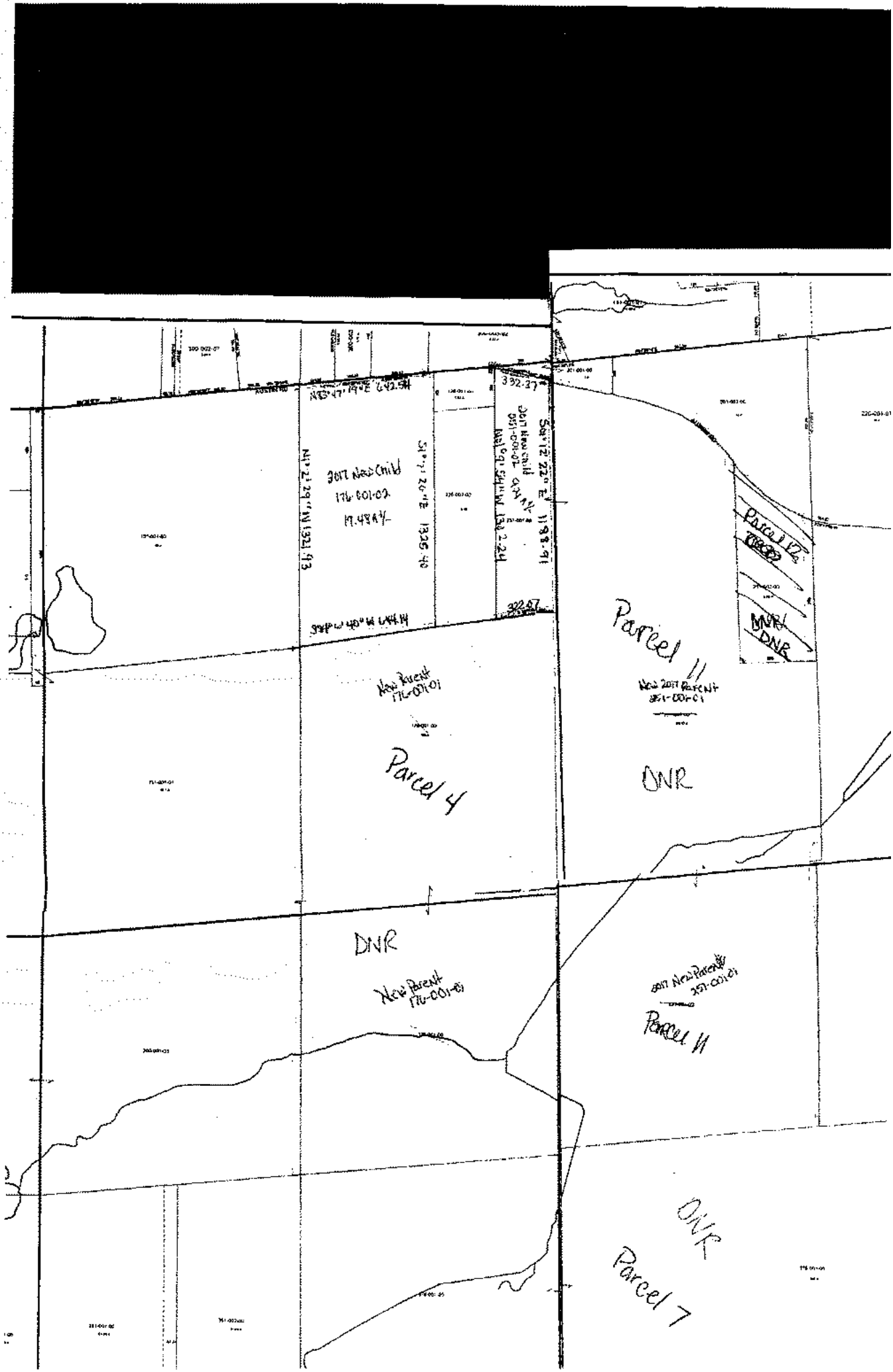


OWNER NAME	GT RANCH LLC
OWNER ADDRESS	3460 ANN ARBOR RD JACKSON MI 49202
HOMESTEAD	100%
PARCEL ADDRESS	AUSTIN RD JACKSON MI 49202
PROPERTY CLASS	102 - AGRICULTURAL VACANT
STATUS	Active
ACREAGE	100 Acres
GOV'T UNIT	Norvell
TAX UNIT	Norvell
SCHOOL DISTRICT	MANCHESTER SCHOOL
LIBER/PAGE	2029-1077

	2013	2014	2015
TAXABLE VALUE	$45,196	$45,919	$46,653
ASSESSED VALUE	$146,990	$160,050	$165,800

TAX DESCRIPTION
THE W 1/2 OF NE 1/4 OF NW 1/4 AND SE 1/4 OF NW 1/4 AND NE 1/4 OF SW 1/4. SEC 12 T4S R2E 100A

This generated map is provided to allow easy access and visual display of governmental information and services, as well as to information from other sources. Every reasonable effort has been made to ensure the accuracy of the maps and data provided; nevertheless, some information may not be accurate. The burden of determining the accuracy, timliness, completness, merchantability, and fitness or appropriateness of use rests solely on you, the user. The parcel data on this sheet was last updated on January 19, 2016.


2017 New Child
176-001-02
19.48A+/-
New Parent
176-001-01
Parcel 4
DNR
New Parent
176-001-01
Parcel 11
New 2017 Parent
351-001-01
DNR
2017 New Parent
351-001-01
Parcel 11
DNR
Parcel 7

arcel #: 000-20-12-176-001-00

Tax Year: 2015

Owner: GT RANCH LLC

Address: AUSTIN RD

ouble-click or hit the [ENTER] key to view details.

Quick Find... View Graph...

Tax Year	Season	Billed	Interest	Paid	Balance	Last Payment Date
2016	Summer	579.54	0.00	579.54	0.00	09/07/2016
2015	Winter	763.47	0.00	763.47	0.00	02/17/2016
2015	Summer	577.82	0.00	577.82	0.00	09/11/2015
2014	Winter	751.43	0.00	751.43	0.00	02/18/2015
2014	Summer	565.97	0.00	565.97	0.00	09/12/2014
2013	Winter	671.13	0.00	671.13	0.00	02/14/2014
2013	Summer	559.78	0.00	559.78	0.00	09/16/2013
2012	Winter	655.41	0.00	655.41	0.00	02/11/2013
2012	Summer	546.66	0.00	546.66	0.00	09/12/2012
2011	Winter	638.05	0.00	638.05	0.00	02/10/2012
2011	Summer	532.30	5.27	537.57	0.00	09/30/2011
2010	Winter	627.39	0.00	627.39	0.00	02/14/2011
2010	Summer	523.40	0.00	523.40	0.00	09/15/2010
2009	Winter	629.64	0.00	629.64	0.00	02/12/2010
2009	Summer	524.98	0.00	524.98	0.00	09/14/2009
2008	Winter	603.11	0.00	603.11	0.00	02/16/2009
2008	Summer	502.86	0.00	502.86	0.00	09/15/2008
2007	Winter	611.05	0.00	611.05	0.00	02/06/2008
2007	Summer	491.56	0.00	491.56	0.00	09/10/2007
2006	Winter	655.37	0.00	655.37	0.00	02/12/2007
2006	Summer	408.32	0.00	408.32	0.00	09/14/2006

JACKSON COUNTY
JUNE 20, 2016
RECEIPT # 657694

STATE OF MICHIGAN
REAL ESTATE
TRANSFER TAX

$3,190.00- CO
$21,750.00- ST
STAMP # 74217

LIBER 2079 PAGE 1232 1 of 6

STATE OF MICHIGAN - JACKSON COUNTY
Received 06/20/2016 12:36:03 PM 2743120
Processed 06/20/2016 12:36:16 PM DW
Amanda L. Riska , Clerk/Register of Deed

JACKSON COUNTY TREASURER'S CERTIFICATE
No 156950 Jackson, MI 6-20 2016
I HEREBY CERTIFY that there are no TAX LIENS or TITLES held by the State or any individual against the within description, and all TAXES on same are paid for five years previous to the date of this instrument as appears by the records in this office except as stated

Karen A. Coffman CT

KAREN A. COFFMAN, County Treasurer
Sec. 135 Act 206 1893 As Am

WARRANTY DEED

The Grantor, GT RANCH, LLC, a Michigan limited liability company, 3460 Ann Arbor Road, Jackson, Michigan 49294, conveys and warrants to the State of Michigan, P.O. Box 30448, Lansing, Michigan 48909-7948 all of its interest in the following described premises located in the Township of Norvell, County of Jackson, State of Michigan:

SEE ATTACHED RIDER A

for the full consideration of Two Million Nine Hundred Thousand and 00/100 Dollars ($2.900,000.00), subject to easements and building and use restrictions, if any, the lien of taxes not yet due and payable, and zoning ordinances.

The Grantor grants to the Grantee the right to make 18 legally permissible division(s) under Section 108 of the Land Division Act, Act 288 of the Public Acts of 1967, MCL 560.108, as amended.

This property may be located within the vicinity of farm land or a farm operation. Generally accepted agricultural and management practices which may generate noise, dust, odors, and other associated conditions may be used and are protected by the Michigan Right to Farm Act.

The terms of this conveyance shall extend to the administrators, successors and the assigns of the parties hereto.

Subject to easements, reservations and restrictions of record, if any.

Dated this 15th day of June, 2016

GRANTOR: GT RANCH, LLC

By: Gary Trolz
Its: Managing Member

STATE OF MICHIGAN)
) SS
COUNTY OF JACKSON)

The foregoing instrument was acknowledged before me this 15th day of JUNE, 2016, by Gary Trolz, as Managing Member of GT Ranch, LLC, who executed the same as his free act and deed.

Susan L. Bues Notary Public
Jackson County, Michigan
Acting in Jackson County, MI
My Commission Expires: 10-23-19

000-20-13-151-003-00 EQ
000-20-14-296-001-00 EQ
PART OF 000-20-14-201-001-00 EQ
PART OF 000-20-12-176-001-00 EQ
PART OF 000-20-13-400-001-00 EQ
000-20-12-376-001-00 EQ

000-20-13-201-001-00 EQ
PART OF 000-20-13-251-001-00 EQ
PART OF 000-20-13-101-003-00 EQ
PART OF 000-20-12-251-001-00 EQ
000-20-12-251-002-00 EQ

RIDER A

PROPERTY DESCRIPTION

The land referred to is described as follows:

[redacted]

Commencing at the Northwest corner of the Southwest 1/4 of Northwest 1/4 of Section 13, thence East along the North East-West 1/4, 1/4 section line of the Southwest 1/4 of Northwest 1/4 660 feet for a place of beginning, thence 90 degrees to the left to the North line of the LS & MS Railroad, thence Westerly along said North line to a point in the West North-South Section line of Section 13, (also called the West line of said Section 13) , thence South in said Section line to a point in the South line of the LS & MS Railroad, thence Northeasterly along said South line to a point in a line 660 feet East of the West North-South Section line of Section 13, thence North to the place of beginning, being a part of the West 1/2 of the Northwest 1/4 of Section 13, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan.

PARCEL 2: 000-20-14-276-001-00
Commencing at the Northeast corner of the Southeast 1/4 of the Northeast 1/4 of Section 14, thence South on the East Section line to a point on the North line of the LS & MS Railroad for a place of beginning, thence Southwesterly along said North line to the centerline of Fay Lake Highway, thence South on the centerline of the highway to a point on the South line of the LS & MS Railroad, thence Northeasterly along said South line to a point on the East Section line of Section 14, thence North on said line to the place of beginning, being a part of the South 1/2 of the Northeast 1/4 and Northeast 1/4 of Southwest 1/4 of Section 14, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan.

PARCEL 3: Part Of 000-20-14-201-001-00
The Northeast 1/4 of the Northwest 1/4 and the West 1/2 of the Northeast 1/4 of Section 14, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan, excepting and reserving therefrom the land that is situated South of the South line of the railroad right of way of the LS & MS Railroad.

PARCEL 4: [redacted]
The Southeast 1/4 of the Northwest 1/4 and the Northeast 1/4 of the Southwest 1/4 of Section 12, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan.

PARCEL 5: N/A

SEE RIDER "A" CONTINUED

RIDER "A" CONTINUED

[redacted]

That part of the Northeast 1/4 and that part of the Southeast 1/4 of Section 13, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan, described as Commencing at the Northeast corner of said Section 13, thence run South 01 degrees 06' 54" East along the East line of said Section 13 a distance of 1080.24 feet to the Southerly line of the LS and MS Railroad and the point of beginning of the following described parcel of land; thence continuing South 01 degrees 06' 54" East along the said East section line a distance of 960 feet more or less to a contour line of 977.36 feet being the overflow elevation of Watkins Lake as determined by a chiseled square in the Southerly inside corner of the top of a concrete structure 108 feet East of Arnold Road and 678 feet South of the railroad; thence run Southwesterly and Southeasterly along the said 977.36 feet contour line to the East and West 1/4 line of said Section 13; thence continuing Southeasterly along the said contour line to the East line of said Section 13; thence run South 01 degrees 33' 30" East approximately 300 feet along the said East Section line to the said 977.36 feet contour line; thence run Southerly, Westerly and Northerly along the said 977.36 feet contour line to a point North 01 degrees 20' 21" West 1066.21 feet and North 88 degrees 39' 39" East approximately 13 feet from the Southwest corner of the Southeast 1/4 of the said Southeast 1/4; thence run South 88 degrees 39' 39" West approximately 13 feet to the West line of the said Southeast 1/4 of the Southeast 1/4 being North 01 degrees 20' 21" West 1066.21 feet from the said Southwest corner of the Southeast 1/4 of the Southeast 1/4 (The 977.36 feet contour property line is supplemented by an Intermediate Traverse Line that is approximately parallel with and Easterly, Southerly and Westerly of the said 977.36 feet contour line, with its point of beginning being South 01 degrees 33' 30" East along the said East Section line at a distance of 323.17 feet from the said East 1/4 corner; thence run along the said Intermediate Traverse Line South of and near the 977.36 feet contour line South 19 degrees 19' 31" West a distance of 410.13 feet; thence continuing along the said Intermediate Traverse Line South 06 degrees 19' 30" West a distance of 997.33 feet; thence continuing along the said Intermediate Traverse Line South 25 degrees 09' 49" West a distance of 362.71 feet; thence continuing along the said Intermediate Traverse Line South 83 degrees 27' 59" West a distance of 390.11 feet ; thence continuing along the said Intermediate Traverse Line South 14 degrees 22' 19" West a distance of 143.68 feet; thence continuing along the said Intermediate Traverse Line South 60 degrees 20' 35" West a distance of 147.76 feet; thence continuing along the said Intermediate Traverse Line North 44 degrees 53' 49" West a distance of 129.12 feet; thence continuing along the said Intermediate Traverse Line North 09 degrees 51' 45" East a distance of 190.46 feet; thence continuing along the said Intermediate Traverse Line North 38 degrees 23' 48" West a distance of 408.85 feet to the said West line of the Southeast 1/4 of the Southeast 1/4 and the point of ending of the said Intermediate Traverse Line, said point being North 01 degrees 20' 21" West a distance of 1066.21 feet from the said Southwest corner of the Southeast 1/4 of the Southeast 1/4); thence run North 01 degrees 20' 21" West along the said West line a distance of 259.01 feet to the Northwest corner of the Southeast 1/4 of the said Southeast 1/4; thence continuing North 01 degrees 20' 21" West along the said West line a distance of 1325.22 feet to the Northwest corner of the Northeast 1/4 of the said Southeast 1/4; thence run North 01 degrees 07' 02" West a distance of 1551.58 feet to the said Southerly line of the LS & MS Railroad; thence run North 87 degrees 49' 10" East along the said South line a distance of 33.01 feet; thence run South 01 degrees 07' 02" East a distance of 48.00 feet; thence run North 85 degrees 08' 37" East along the said South line a distance of 823.00 feet; thence run North 63 degrees 26' 14" East along the said South line a distance of 83.00 feet; thence run Easterly along a 3118.96 feet radius non tangent curve concave to the North a distance of 216.94 feet, the chord bears North 78 degrees 36' 43" East 216.90 feet to the point of compound curvature; thence run Easterly along a 4241.94 feet radius curve to the left a distance of 155.55 feet, the chord bears North 75 degrees 34' 08" East 155.54 feet to the said East Section line and the point of beginning.

SEE RIDER "A" CONTINUED

RIDER "A" CONTINUED

PARCEL 7: 000-20-12-376-001-00
The Southeast 1/4 of the Southwest 1/4 and the South 1/2 of the Southeast 1/4, Section 12, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan.

[redacted]
That part of the Northeast 1/4 lying North of the Southerly right of way line of the LS & MS Railroad right of way; ALSO that part of the Northeast 1/4 of the Northwest 1/4 lying North of center of angling highway, Section 13 Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan.

[redacted]
That part of the Northwest 1/4 and that part of the Northeast 1/4 and that part of the Southeast 1/4 of Section 13, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan, described as Commencing at the North 1/4 corner of said Section 13, thence run South 01 degrees 07' 10" East along the North and South 1/4 line of said Section 13 a distance of 1149.00 feet to the point of beginning of the following described parcel of land; thence run South 73 degrees 06' 45" West along the Southerly line of land described in the first paragraph of Schedule A of deed recorded in Liber 1189, page 82, Jackson County Records, a distance of 1347.12 feet to the West line of the East 1/2 of the said Northwest 1/4; thence run South 01 degrees 00' 47" East along the said West line a distance of 389.51 feet; thence run North 87 degrees 02' 41" East a distance of 1297.82 feet to the said North and South 1/4 line; thence run South 01 degrees 07' 10" East along the said North and South 1/4 line a distance of 786.97 feet to the center of said Section 13; thence continuing South 01 degrees 07' 10" East along the said North and South 1/ 4 line a distance of 1323.01 feet to the Southwest corner of the Northwest 1/4 of the said Southeast 1/4; thence run North 85 degrees 33' 16" East along the South line of the said Northwest 1/4 of the Southeast 1/4 a distance of 1301.20 feet to the Southeast corner of the said Northwest 1/4 of the Southeast 1/4; thence run North 01 degrees 20' 21" West along the East line of the said Northwest 1/4 of the Southeast 1/4 a distance of 1325.22 feet to the Northeast corner of the said Northwest 1/4 of the Southeast 1/4; thence run North 01 degrees 07' 02" West along the East line of the West 1/2 of the said Northeast 1/4 a distance of 1551.58 feet to the Southerly line of the LS & MS Railroad; thence run South 87 degrees 49' 10" West along the said South line a distance of 1294.21 feet to the said North and South 1/4 line; thence run South 01 degrees 07' 10" East along the said North and South line a distance of 104.34 feet to the point of beginning.

PARCEL 10: 000-20-13-12[redacted]
Beginning at a point of intersection of Northerly right of way line of LS and MS Railroad, with the West 1/8 line of Section 13, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan, thence North along the West 1/8 line to the center of angling highway; thence Southeasterly along said center line to Northerly right of way line of said railroad; thence Southwesterly along said right of way line to beginning.

RIDER "A" CONTINUED

Part [redacted]

The Northwest 1/4 of the Southeast 1/4 of Section 12, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan.
ALSO: The West 1/2 of the Northeast 1/4 of Section 12, lying South of Austin Road, except land described in Liber 770, Page 1172, Jackson County Records, described as beginning at the intersection of the centerline of Austin Road with the East line of the West 1/2 of the Northeast 1/4 of Section 12, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan, thence South along the East line of said West 1/2, 700 feet, thence West 370 feet, thence North parallel to said East line to the centerline of Austin Road, thence Southeasterly along the centerline of Austin Road to the place of beginning.

[redacted]

Beginning at the intersection of the centerline of Austin Road with the East line of the West 1/2 of the Northeast 1/4 of Section 12, Town 4 South, Range 2 East, Norvell Township, Jackson County, Michigan, thence South along the East line of said West 1/2 700 feet, thence West 370 feet; thence North parallel to said East line to the centerline of Austin Road; thence Southeasterly along the centerline of Austin Road to the place of beginning.

PARCEL 13: N/A

REVISION NO. 4

148352
PAGE 4 OF 4

AFTER RECORDED, RETURN TO:
State of Michigan
P.O. Box 30448
Lansing, MI 48909-7948

SEND SUBSEQUENT TAX BILLS TO:
Michigan Department of Treasury
Payment In-Lieu-Of Tax Program
P.O. Box 30722
Lansing, MI 48909

DRAFTED BY:
Catherine A. Jacobs (P32996)
Loomis, Ewert, Parsley, Davis & Gotting, P.C.
124 W. Allegan St., Suite 700
Lansing, MI 48933

Recording Fee: _____

FOIA Request for Public Records

Michigan Freedom of Information Act, Public Act 442 of 1976, MCL 15.231, *et seq.*

Request No.:_____ Date Received:_____ Check if received via: [ ] Email [ ] Fax [ ] Other Electronic Method

Date delivered to junk/spam folder:_____

(Please Print or Type) Date discovered in junk/spam folder:_____

Name Aliya Spotts			Phone 810.599.6296
Email Address FOIA@asti-env.com			Fax 810-225-3800
Street 10448 Citation Dr, Suite 100			
City Brighton	State MI	Zip 48116	

Request for: [●] Copy [ ] Certified copy [ ] Record inspection [ ] Subscription to record issued on regular basis

Delivery Method: [ ] Will pick up [ ] Will make own copies onsite [ ] Mail to address above [●] Email to address above

[ ] Deliver on digital media provided by the City:_____

Note: The City is not required to provide records in a digital format or on digital media if the City does not already have the technological capability to do so.

Describe the public record(s) as specifically as possible. You may use this form or attach additional sheets:

-ASTI Environmental is conducting an environmental assessment and respectfully request any:
-Assessing Department records regarding historical and current assessing records and field sheets;
-Building Department records regarding any building permits, site plans, sketches, code violations, and inspections;
-Zoning Department: records regarding permits and maps; and
-Fire Department records regarding any reports of spills/releases, above ground and underground storage tanks, landfilling, fires, code violations, and Hazmat incidents.
We would like to go back as far as possible to present in the history of the property , if costs exceed $50, please let me know before proceeding to FOIA@asti-env.com Thank you!

Vacant land on Herman Rd, Tax ID: P-16-18-200-007

Herman Rd. - GT Ranch
map attached

and/or any historical addresses associated

Requestor's Signature	Date 09.11.24

(Complete both sides)

P 16-18-200-004 010-MANCH FI FI 1

GLYNN TROLZ & ASSOC INC

3460 ANN ARBOR RD B 249
JACKSON MI 49201

*OLD SID - P 16-018-011-00
MA 18-7A
BEG AT THE NW COR OF SEC, TH N 87 DEG 57' E 2310.85 FT IN THE N LINE OF SEC, TH S 10 CHNS, TH E 1.48 CHNS, TH S 30 CHNS, TH S 89 DEG 15' W 346.0 FT, TH N 270 FT, TH W

BOE
KRC
KRd

Old Bldg

AGRICULTURAL

(145)

PROPERTY LOCATION	Herman Rd		ST AV RD
EXAMINED BY	RM	DATE 1ST 12-19-80	DATE 2ND
MAP # 18	BLOCK		CARD

LAND COMPUTATIONS

TYPE	ACREAGE	VALUE/ACRE	FACTOR	TRUE CASH VALUE
Bldg Lot	2.00	800		$ 1600
2	55.00	800		$ 44000
3	55.00	600		$ 33000
10	40.58	500		$ 20290
				$
				$
15	.45			$
	153.03		TOTAL	$ 98890

LAND IMPROVEMENTS

TYPE	AMT.	RATE	0/0 COND.	TRUE CASH VALUE
Well	-			$ 7000
				$
				$
				$

TOTAL LAND PLUS IMPROVEMENTS	$ 96890
TOTAL BUILDINGS	$ 84740
TOTAL TRUE CASH VALUE	$ 181630
ROUNDED	$ 181600

PERSON CONTACTED X _____ DATE _____ LL

LAND TYPES				PU	UTILITIES	PR	STREET/ROAD		TOPOGRAPHY	
HOMESTEAD 1	ORCHARD 5	NEW GROUND 9	REAR LOT 13		WATER		DIRT		LEVEL	
TILLABLE 2	POND 6	SCRUB 10	LANE 14		SEWER		GRAVEL		ROLLING	/
PASTURE 3	WASTE 7	MARSH 11	ROAD R.O.W. 15	/	ELECTRIC	/	PAVED	/	LOW	
WOODS 4	TILL. FLOOD 8	FRONT LOT 12	DRAIN R.O.W. 16		GAS		ST. HWY.		HIGH	

DATE OF TRANSFER	GRANTEE'S NAME	REVENUE STAMP	VERIFICATION SALE PRICE	PERSONAL PROPERTY	ADJUSTED SALE

ASSESSMENT YEAR		19 87	19 90	19 94	19 95	19 96	19 97	19	19	19
REASON FOR CHANGE		REVALUATION								
TRUE CASH VALUE	LAND									
	BLDG.									
	TOTAL				94084 TNA	96718 TV	99426			
ASSESSED VALUE	LAND									
	BLDG.									
	TOTAL	90300	90800	96700	97600	102500	117500			

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19. FARM BUILDINGS AND IMPROVEMENTS

	1	2	3	4	5	6	7	8
BUILDING TYPE	Silo 20	Silo 20	Silo 15	Feeder	Silo 20	Pole Barn	trench Silo	
YEAR BUILT	W/R	W/R	W/o R		W/o R		w/conc walls	
YEAR REMODELED	Conc	Conc						
DIMENSIONS	24x80	24x80	20x60	12X100	24x80	34x80	84x280	
CONSTRUCTION						Pole		
FOUNDATION						Pole	Conc Bunker walls	
EXTERIOR						M		
ROOF TYPE						gable		
ROOF COVER						M	(12'H)	
INTERIOR FINISH						—		
LOFT FLOOR						—		
BASEMENT FLOOR						C		
ATTIC/LIVING QTRS.								
SQUARE FEET				100LF		2720	280LF	
UNIT COST				15.00/LF		470	150.00	
BASE VALUE	25000	25000	13000	1500	25000	12780	42000	
PHYSICAL COND. %	90	90	80	80	90	90	40	
FUNCTIONAL %	80	80	80	—	80	—	40	
DEPRECIATED VALUE	18000	18000	8320	1200	18000	11500	6720	

REMARKS:

19. TOTAL 81740

Parcel Number: P -16-18-200-004 Jurisdiction: MANCHESTER TOWNSHIP County: WASHTENAW Printed on 09/13/2024

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.
TROLZ GLYNN & ASSOCIATES	GT RANCH LLC	0	03/15/2014	QC	QC	5032/0478	DEED	0.0
TROLZ	GT RANCH LLC	0	03/15/2014	QC	QC	5034/0237	DEED	0.0
Trolz, Lydia	Trolz, Glen	0	11/17/2001	QC	NAME CHANGE ONLY	4092/0957	TEMPBUTUSED	0.0

Property Address

HERMAN RD

Owner's Name/Address

GT RANCH LLC
3460 ANN ARBOR RD
P O BOX 249
JACKSON MI 49204-0249

Taxpayer's Name/Address

GT RANCH LLC
3460 ANN ARBOR RD
P O BOX 249
JACKSON MI 49204-0249

Tax Description

*OLD SID - P 16-018-011-00 MA 18-7A BEG AT THE NW COR OF SEC, THN 87 DEG 57' E 2310.85 FT IN THE N LINE OF SEC, TH S 10 CHNS, TH E 1.48 CHNS, TH S 30 CHNS, TH S 89 DEG 15' W346.0 FT, TH N 270 FT, TH W 325.0 FT, TH S 270 FT, TH S 89 DEG 15' W 247.90 FT IN E & W 1/4 LINE, TH S 48 DEG 31' W 1937.10 FT ALG HWY TO W LINE OF SEC TH N 1 DEG 15' W 3893.00 FT ALG W LINE OF SEC TO POB, BEING PART OFW FRL 1/2 SEC 18 T4S R3E. 153.03 AC.
SPLIT ON 11/18/2015 INTO P -16-18-200-006 P -16-18-200-007;

Comments/Influences

DRIVEWAY = NV
16-18-200-004=153.03 AC. SPLIT ON 11/18/2015 INTO 16-18-200-006=86.05AC AND 16-18-200-007=77.98AC

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Licensed To: Township of Manchester,
County of Washtenaw, Michigan

Class: 001 RETIRED REAL | Zoning: AR A

School: 81080 MANCHESTER SD

P.R.E. 100% / /

MAP #:

2017 Est TCV 0

Building Permit(s)	Date	Number	Status

X Improved | Vacant

Public Improvements

	Dirt Road
X	Gravel Road
	Paved Road
	Storm Sewer
	Sidewalk
	Water
	Sewer
	Electric
	Gas
	Curb
	Street Lights
X	Standard Utilities
	Underground Utils.

Topography of Site

	Level
X	Rolling
	Low
	High
	Landscaped
	Swamp
	Wooded
	Pond
	Waterfront
	Ravine
	Wetland
	Flood Plain

Who	When	What
PHZ	06/01/2015	INSPECTED

Land Value Estimates for Land Table 90500.90500 INACTIVE LND TBL

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
			1.91	Acres	0	100		0
			108.66	Acres	0	100		0
			7.76	Acres	0	100		0
			32.11	Acres	0	100		0
			1.28	Acres	0	100		0
			1.31	Acres	0	100		0
			153.03	Total Acres	Total Est. Land Value =			0

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2017	0	0	0			0
2016	0	0	0			0
2015	324,250	53,550	377,800			150,590
2014	321,050	54,250	375,300			148,219

*** Information herein deemed reliable but not guaranteed***

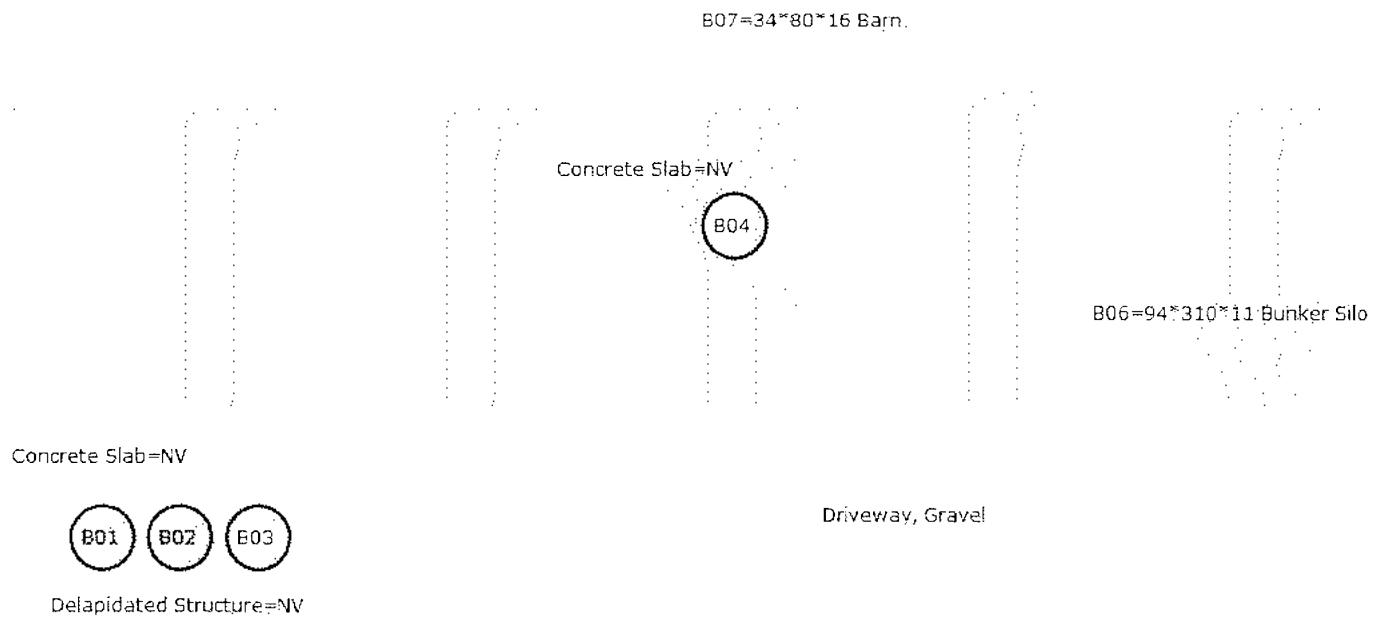
Building Type	Cylindrical Silo	Cylindrical Silo	Cylindrical Silo	Cylindrical Silo	Bunker or Trench Silo
Year Built					
Class/Construction	Concrete Stave	Concrete Stave	Concrete Stave	Concrete Stave	Conc. Wall Panels
Quality/Exterior	Diameter: 24	Diameter: 24	Diameter: 20	Diameter: 24	N/A
Base Rate/SF	44800.00	44800.00	25200.00	44800.00	486.00
# of Walls, Perimeter	Roof: Dome Roof	Roof: Dome Roof	Roof: Flat Roof	Roof: Flat Roof	N/A
Perimeter Mult.	+ 0 = 44800	+ 0 = 44800	+ -1335 = 23865	+ -1923 = 42877	N/A
Height	80	80	60	80	N/A
Story Height Mult.	N/A	N/A	N/A	N/A	N/A
Heating System	N/A	N/A	N/A	N/A	N/A
Heat Adj./SF	N/A	N/A	N/A	N/A	N/A
Misc. Adjustment	N/A	N/A	N/A	N/A	N/A
Misc. Adj./SF	N/A	N/A	N/A	N/A	N/A
County Multiplier	X 1.54 = 68992.00	X 1.54 = 68992.00	X 1.54 = 36751.83	X 1.54 = 66031.11	X 1.54 = 748.44
Final Rate/SF	$68992.00	$68992.00	$36751.83	$66031.11	$748.44
Length/Width/Area	1	1	1	1	310 x 94 = 29140
Cost New	$ 68,992	$ 68,992	$ 36,752	$ 66,031	$ 215,775
Phy./Func./Econ. %Good	36/10/50 1.8	36/10/50 1.8	29/10/50 1.5	36/10/50 1.8	29/30/100 8.7
Depreciated Cost	$ 1,242	$ 1,242	$ 533	$ 1,189	$ 18,772
+ Unit-In-Place Items	$ 0	$ 0	$ 0	$ 0	$ 0
Description, Size X Rate X %Good = Cost Itemized ->* Unit-In-Place ->* Items ->*					
E.C.F.	X 0.000	X 0.000	X 0.000	X 0.000	X 0.000
% Good	36	36	29	36	29
Est. True Cash Value	$ 0	$ 0	$ 0	$ 0	$ 0
Comments:	B03	B02	B01	B04	B06

Total Estimated True Cash Value of Agricultural Improvements / This Card: 0 / All Cards: 0

*** Information herein deemed reliable but not guaranteed***

Building Type	Barn - General Purpose				
Year Built					
Class/Construction	D,Pole				
Quality/Exterior	Average				
Base Rate/SF	14.15				
# of Walls, Perimeter	4 Wall, 228				
Perimeter Mult.	X 0.998 = 14.12				
Height	16				
Story Height Mult.	X 1.115 = 15.75				
Heating System	No Heating/Cooling				
Heat Adj./SF					
Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.54 = 24.25				
Final Rate/SF	$24.25				
Length/Width/Area	80 x 34 = 2720				
Cost New	$ 65,956				
Phy./Func./Econ. %Good	59/100/100 59.0				
Depreciated Cost	$ 38,914				
+ Unit-In-Place Items	$ 0				
Description, Size X Rate X %Good = Cost Itemized ->					
Unit-In-Place ->					
Items ->					
E.C.F.	X 0.000				
% Good	59				
Est. True Cash Value	$ 0				
Comments:					
Total Estimated True Cash Value of Agricultural Improvements / This Card: 0 / All Cards: 0					

*** Information herein deemed reliable but not guaranteed***



Sketch by Apex Sketch

*** Information herein deemed reliable but not guaranteed***

Parcel Number: P -16-18-200-007 Jurisdiction: MANCHESTER TOWNSHIP County: WASHTENAW Printed on 09/13/2024

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.
TROLZ GLYNN & ASSOCIATES	GT RANCH LLC	0	03/15/2014	QC	QC	5032/0478	DEED	0.0

Property Address

HERMAN RD

Owner's Name/Address

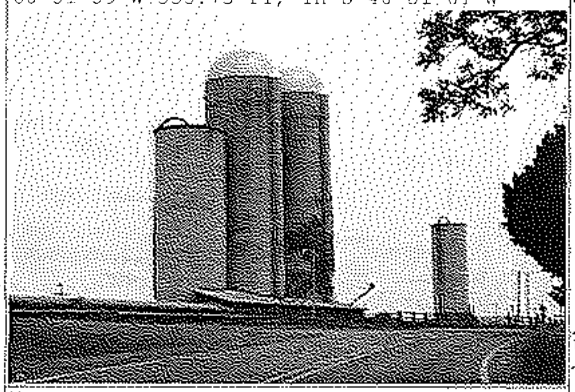
GT RANCH LLC
3460 ANN ARBOR RD
P O BOX 249
JACKSON MI 49204-0249

Taxpayer's Name/Address

GT RANCH LLC
3460 ANN ARBOR RD
P O BOX 249
JACKSON MI 49204-0249

Tax Description

OWNER REQUEST MA 18-7A-2 COM AT S 1/4 COR SEC 7, TH S 88-26-07 W 4013.28 FT, TH S 01-19-43 E 1287.49 FT TO A POB, TH N 88-40-17 E 1851.88 FT, TH S 04-55-27 W 1116.86 FT, TH S 01-16-05 E 270.00 FT, TH S 89-12-57 W 78.62 FT, TH 340.85 FT ALNG ARC OF CURV-LFT-RAD 479.84 FT - CH S 68-51-59 W 333.73 FT, TH S 48-31-01 W



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Licensed To: Township of Manchester,
County of Washtenaw, Michigan

Class: 102 AG VAC | Zoning: AR A

School: 81080 MANCHESTER SD

P.R.E. 100% / /

MAP #:

2017 Est TCV 390,851

Building Permit(s)	Date	Number	Status

X Improved | Vacant

Public Improvements

	Dirt Road
X	Gravel Road
	Paved Road
	Storm Sewer
	Sidewalk
	Water
	Sewer
	Electric
	Gas
	Curb
	Street Lights
X	Standard Utilities
	Underground Utils.

Topography of Site

	Level
X	Rolling
	Low
	High
	Landscaped
	Swamp
	Wooded
	Pond
	Waterfront
	Ravine
	Wetland
	Flood Plain

Who	When	What
PHZ	06/01/2015	INSPECTED

Land Value Estimates for Land Table 00525.00525 AG LND RATE TBL 2017

* Factors * .45

Description	Frontage	Depth	Front	Depth	Rate	%Adj.	Reason	Value
RT AG 2017 A2 TILL #2	0.58 Acres		4590		100			2,662
RT AG 2017 A3 TILL #3	64.42 Acres		4350		100			280,218
RT AG 2017 A4 TILL #4	12.16 Acres		4110		100			49,978
RT AG 2017 ROW	0.82 Acres		0		100			0
	77.98 Total Acres						Total Est. Land Value =	332,858

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2017	166,450	29,000	195,450			86,022C
2016	166,450	28,300	194,750			85,255C
2015	0	0	0			0
2014	0	0	0			0

*** Information herein deemed reliable but not guaranteed***

Building Type	Cylindrical Silo	Cylindrical Silo	Cylindrical Silo	Cylindrical Silo	Bunker or Trench Silo
Year Built					
Class/Construction	Concrete Stave	Concrete Stave	Concrete Stave	Concrete Stave	Conc. Wall Panels
Quality/Exterior	Diameter: 24	Diameter: 24	Diameter: 20	Diameter: 24	N/A
Base Rate/SF	44800.00	44800.00	25200.00	44800.00	486.00
# of Walls, Perimeter	Roof: Dome Roof	Roof: Dome Roof	Roof: Flat Roof	Roof: Flat Roof	N/A
Perimeter Mult.	+ 0 = 44800	+ 0 = 44800	+ -1335 = 23865	+ -1923 = 42877	N/A
Height	80	80	60	80	N/A
Story Height Mult.	N/A	N/A	N/A	N/A	N/A
Heating System	N/A	N/A	N/A	N/A	N/A
Heat Adj./SF	N/A	N/A	N/A	N/A	N/A
Misc. Adjustment	N/A	N/A	N/A	N/A	N/A
Misc. Adj./SF	N/A	N/A	N/A	N/A	N/A
County Multiplier	X 1.54 = 68992.00	X 1.54 = 68992.00	X 1.54 = 36751.83	X 1.54 = 66031.11	X 1.54 = 748.44
Final Rate/SF	$68992.00	$68992.00	$36751.83	$66031.11	$748.44
Length/Width/Area	1	1	1	1	310 x 94 = 29140
Cost New	$ 68,992	$ 68,992	$ 36,752	$ 66,031	$ 215,775
Phy./Func./Econ. %Good	36/10/50 1.8	36/10/50 1.8	29/10/50 1.5	36/10/50 1.8	29/30/100 8.7
Depreciated Cost	$ 1,242	$ 1,242	$ 533	$ 1,189	$ 18,772
+ Unit-In-Place Items	$ 0	$ 0	$ 0	$ 0	$ 0
Description, Size X Rate X %Good = Cost Itemized -> Unit-In-Place -> Items ->					
E.C.F.	X 0.937	X 0.937	X 0.937	X 0.937	X 0.937
% Good	36	36	29	36	29
Est. True Cash Value	$ 1,164	$ 1,164	$ 499	$ 1,114	$ 17,590
Comments:	B03	B02	B01	B04	B06

Total Estimated True Cash Value of Agricultural Improvements / This Card: 21531 / All Cards: 57993

*** Information herein deemed reliable but not guaranteed***

Building Type	Barn - General Purpose				
Year Built					
Class/Construction	D,Pole				
Quality/Exterior	Average				
Base Rate/SF	14.15				
# of Walls, Perimeter	4 Wall, 228				
Perimeter Mult.	X 0.998 = 14.12				
Height	16				
Story Height Mult.	X 1.115 = 15.75				
Heating System	No Heating/Cooling				
Heat Adj./SF					
Misc. Adjustment					
Misc. Adj./SF					
County Multiplier	X 1.54 = 24.25				
Final Rate/SF	$24.25				
Length/Width/Area	80 x 34 = 2720				
Cost New	$ 65,956				
Phy./Func./Econ. %Good	59/100/100 59.0				
Depreciated Cost	$ 38,914				
+ Unit-In-Place Items	$ 0				
Description, Size X Rate X %Good = Cost Itemized ->

Unit-In-Place ->

Items -> | | | | | |
E.C.F.	X 0.937				
% Good	59				
Est. True Cash Value	$ 36,462				
Comments:					
Total Estimated True Cash Value of Agricultural Improvements / This Card: 36462 / All Cards: 57993					

*** Information herein deemed reliable but not guaranteed***

B07=34*80*16 Barn

Concrete Slab=NV

B04

B06=94*310*11 Bunker Silo

Concrete Slab=NV

B01 B02 B03

Delapidated Structure=NV

Driveway, Gravel

Sketch by Apex Sketch

*** Information herein deemed reliable but not guaranteed***

Parcel Number: P -16-18-200-007 Jurisdiction: MANCHESTER TOWNSHIP County: WASHTENAW Printed on 09/13/2024

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.
TROLZ GLYNN & ASSOCIATES	GT RANCH LLC	0	03/15/2014	QC	21-NOT USED/OTHER	5032/0478	DEED	0.0

Property Address
HERMAN RD

Owner's Name/Address
GT RANCH LLC
3460 ANN ARBOR RD
P O BOX 249
JACKSON MI 49204-0249

Class: AGRICULTURAL-VACA | Zoning: AR A
School: MANCHESTER COMMUNITY SCH DST
P.R.E. 100% / /
MAP #:
2024 Est TCV 441,516

Building Permit(s)	Date	Number	Status

X Improved | Vacant

Land Value Estimates for Land Table 00525.00525 AG LND RATE MANCHESTER

Description	Frontage	Depth	* Factors * Front	Depth	.45 Rate	%Adj.	Reason	Value
RT AG 2024 A2 TILL #2	0.58 Acres		5100	100				2,958
RT AG 2024 A3 TILL #3	64.42 Acres		4900	100				315,648
RT AG 2024 A4 TILL #4	12.16 Acres		4300	100				52,288
RT AG 2024 ROW	0.82 Acres		0	100				0
	77.98 Total Acres		Total Est. Land Value =					370,894

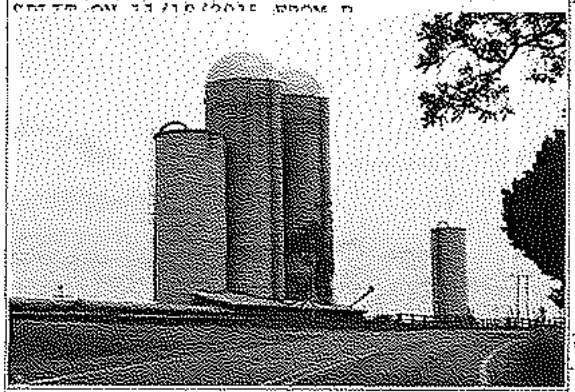
Public Improvements

	Dirt Road
X	Gravel Road
	Paved Road
	Storm Sewer
	Sidewalk
	Water
	Sewer
	Electric
	Gas
	Curb
	Street Lights
X	Standard Utilities
	Underground Utils

Topography of Site

X	Level
	Rolling
	Low
	High
	Landscaped
	Swamp
	Wooded
	Pond
	Waterfront
	Ravine
	Wetland
	Flood Plain

Tax Description
OWNER REQUEST MA 18-7A-2 COM AT S 1/4 COR SEC 7, TH S 88-26-07 W 4013.28 FT, TH S 01-19-43 E 1287.49 FT TO A POB, TH N 88-40-17 E 1851.88 FT, TH S 04-55-27 W 1116.86 FT, TH S 01-16-05 E 270.00 FT, TH S 89-12-57 W 78.62 FT, TH 340.85 FT ALNG ARC OF CURV-LFT-RAD 479.84 FT - CH S 68-51-59 W 333.73 FT, TH S 48-31-01 W 1319.26 FT, TH 807.81 FT ALNG ARC OF CURV-LFT-RAD 924.01 FT - CH S 23-28-19 W 782.33 FT, TH N 01-34-24 W 203.75 FT, TH N 01-19-43 W 1477.78 FT, TH N 01-19-43 W 1371.91 FT TO THE POB. PT OF W 1/2 SEC 18 T4S-R3E. 77.98 AC.
SPLIT ON 11/18/2015 FROM P



Who	When	What
PHZ	08/25/2021	DESKTOP RE
PHZ	06/01/2015	INSPECTED

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2024	185,450	35,300	220,750			105,830C
2023	181,600	34,200	215,800			100,791C
2022	177,450	33,600	211,050			95,992C
2021	174,050	29,950	204,000			92,926C

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Licensed To: Township of Manchester,
County of Washtenaw, Michigan

*** Information herein deemed reliable but not guaranteed***

Building Type	Cylindrical Silo	Cylindrical Silo	Cylindrical Silo	Cylindrical Silo	Bunker or Trench Silo
Year Built					
Class/Construction	Concrete Stave	Concrete Stave	Concrete Stave	Concrete Stave	Conc. Wall Panels
Quality/Exterior	Diameter: 24	Diameter: 24	Diameter: 20	Diameter: 24	N/A
# of Walls, Perimeter	Roof: Dome Roof	Roof: Dome Roof	Roof: Flat Roof	Roof: Flat Roof	N/A
Height	80	80	60	80	N/A
Heating System	N/A	N/A	N/A	N/A	N/A
Length/Width/Area	1	1	1	1	310 x 94 = 29140
Cost New	$ 88,400	$ 88,400	$ 50,080	$ 88,400	$ 296,152
Phy./Func./Econ. %Good	26/10/50 1.3	26/10/50 1.3	20/10/50 1.0	26/10/50 1.3	22/30/100 6.6
Depreciated Cost	$ 1,149	$ 1,149	$ 501	$ 1,149	$ 19,546
+ Unit-In-Place Items	$ 0	$ 0	$ 0	$ 0	$ 0
Description, Size X Rate X %Good = Cost Itemized -> Unit-In-Place -> Items ->					
E.C.F.	X 1.000	X 1.000	X 1.000	X 1.000	X 1.000
% Good	26	26	20	26	22
Est. True Cash Value	$ 1,149	$ 1,149	$ 501	$ 1,149	$ 19,546
Comments:	B03	B02	B01	B04	B06

Total Estimated True Cash Value of Agricultural Improvements / This Card: 23494 / All Cards: 70622

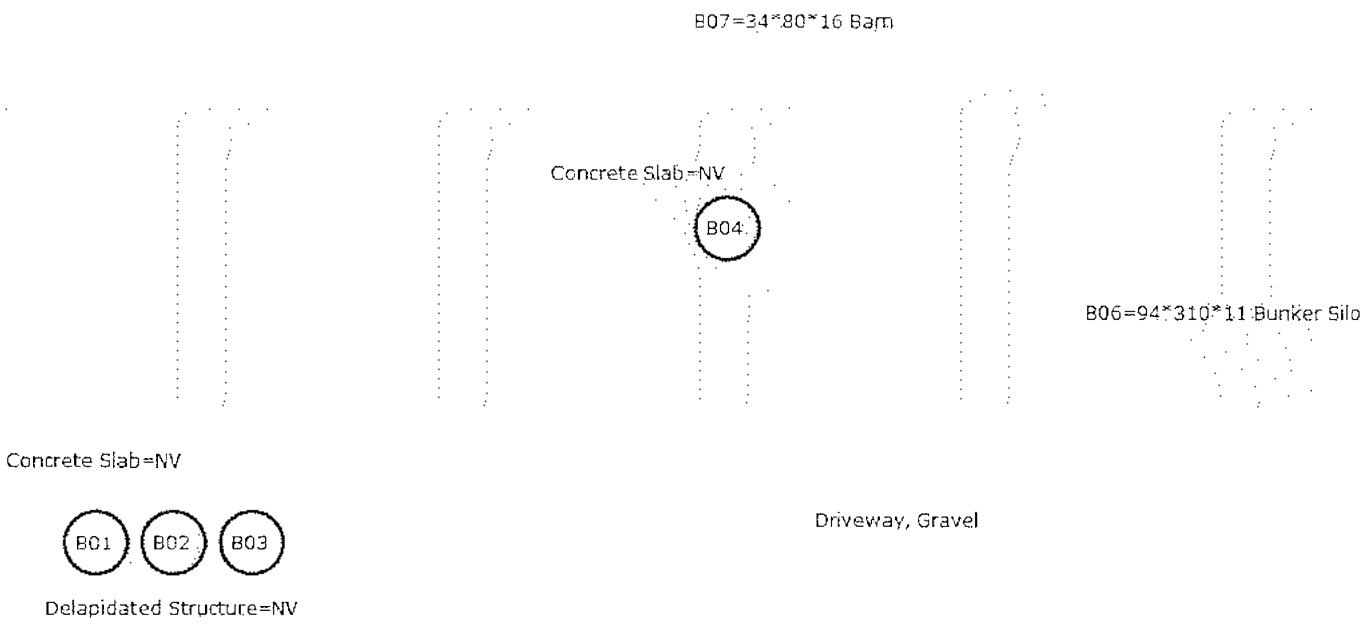
*** Information herein deemed reliable but not guaranteed***

Building Type	Barn - General Purpose				
Year Built					
Class/Construction	D,Pole				
Quality/Exterior	Average				
# of Walls, Perimeter	4 Wall, 228				
Height	16				
Heating System	No Heating/Cooling				
Length/Width/Area	80 x 34 = 2720				
Cost New	$ 90,630				
Phy./Func./Econ. %Good	52/100/100 52.0				
Depreciated Cost	$ 47,128				
+ Unit-In-Place Items	$ 0				
Description, Size X Rate X %Good = Cost Itemized ->

Unit-In-Place ->

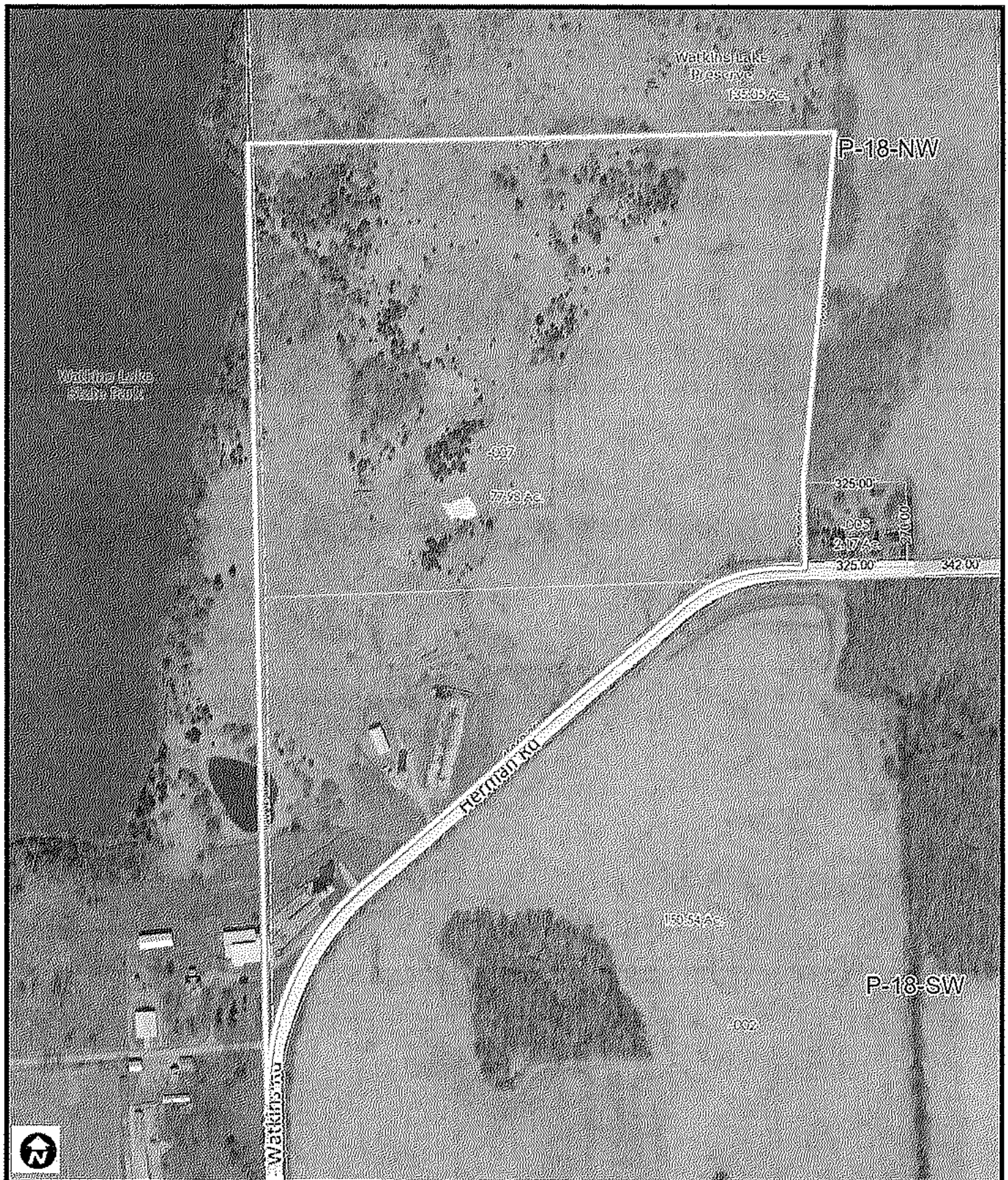
Items -> | | | | | |
E.C.F.	X 1.000				
% Good	52				
Est. True Cash Value	$ 47,128				
Comments:					
Total Estimated True Cash Value of Agricultural Improvements / This Card: 47128 / All Cards: 70622					

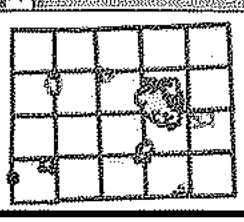
*** Information herein deemed reliable but not guaranteed***



Sketch by Apex Sketch

*** Information herein deemed reliable but not guaranteed***





p -16-18-200-007

0 200.00 400.0 800.0 Feet

1: 4,800

9/13/2024

Geographic Information System

NOTE: Parcels may not be to scale.

The information contained in this cadastral map is used to locate identify and inventory parcels of land in Washtenaw County for appraisal and taxing purposes only and is not to be construed as a "survey-description". The information is provided with the understanding that the conditions drawn from such information are solely the responsibility of the user. Any assumption of legal status of this data is hereby disclaimed.

© 2013 Washtenaw County

This MAP REPRESENTS PARCELS AT THE TIME OF PRINTING. THE OFFICIAL PARCEL TAX MAPS ARE MAINTAINED SOLELY BY THE WASHTENAW COUNTY EQUALIZATION DEPARTMENT AND CAN BE OBTAINED BY CONTACTING THAT OFFICE AT 734-222-6662.

Parcel Number: P -16-18-200-004 Jurisdiction: MANCHESTER TOWNSHIP County: WASHTENAW Printed on 03/09/2011

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans
Trolz, Lydia	Trolz, Glen		11/17/2001	QC	NAME CHANGE ONLY	4092/0957	TEMPBUTUSED	0.0

Property Address
HERMAN RD

Owner's Name/Address
TROLZ GLYNN & ASSOCIATES INC

P O BOX 249
JACKSON MI 49204-0249

Taxpayer's Name/Address
TROLZ GLYNN & ASSOCIATES INC

P O BOX 249
JACKSON MI 49204-0249

Class: 101.AG IMP | Zoning: AG AG

School: 81080 MANCHESTER SD

P.R.E. 100% / /

MAP #:

2011 Est TCV 724,193

Building Permit(s)	Date	Number	Status

X Improved | Vacant

Public Improvements

	Dirt Road
X	Gravel Road
	Paved Road
	Storm Sewer
	Sidewalk
	Water
	Sewer
	Electric
	Gas
	Curb
	Street Lights
X	Standard Utilities
	Underground Utils.

Topography of Site

	Level
	Rolling
	Low
	High
	Landscaped
	Swamp
	Wooded
	Pond
	Waterfront
	Ravine
	Wetland
	Flood Plain

Description

*OLD SID - P 16-018-011-00 MA 18-7A BEG AT THE NW COR OF SEC, THN 87 DEG 57' E 2310.85 FT IN THE N LINE OF SEC, TH S 10 CHNS, TH E 1.48 CHNS, TH S 30 CHNS, TH S 89 DEG 15' W346.0 FT, TH N 270 FT, TH W 325.0 FT, TH S 270 FT, TH S 89 DEG 15' W 247.90 FT IN E & W 1/4 LINE, TH S 48 DEG 31' W 1937.10 FT ALG HWY TO W LINE OF SEC TH N 1 DEG 15' W 3893.00 FT ALG W LINE OF SEC TO POB, BEING PART OFW FRL 1/2 SEC 18 T4S R3E, 153.03 AC.

Comments/Influences

Land Value Estimates for Land Table 00525.00525 AG LND RATE TBL 2011

Description	Frontage	Depth	* Factors * Front	Depth	Rate	%Adj.	Reason	Value
RT AG 2011 A3 TILL #3	97.88 Acres		4221	100				413,151
RT AG 2011 A4 TILL #4	13.07 Acres		3987	100				52,110
RT AG 2011 WOODS (DRY)	39.49 Acres		3500	100				138,215
RT AG 2011 POND/LAKE	1.28 Acres		275	100				352
RT AG 2011 ROW	1.31 Acres		0	100				
	153.03 Total Acres				Total Est. Land Value =			603,829

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2011	301,900	60,200	362,100			138,721C
2010		442,100	442,100			136,403C
2009	391,000	72,150	463,150			136,814C
2008	319,200	72,150	391,350			131,048C

Who	When	What

The Equalizer. Copyright (c) 1999 - 2000. Licensed to: Manchester Township, Washtenaw County

Information herein deemed reliable but not guaranteed

Building Type	Cylindrical Silo	Cylindrical Silo	Cylindrical Silo	Bunk Feeder	Cylindrical Silo
Year Built					
Class/Construction	Concrete Stave	Concrete Stave	Concrete Stave	One Sided	Concrete Stave
Quality/Exterior	Diameter: 24	Diameter: 24	Diameter: 20	Concrete	Diameter: 24
Base Rate/SF	44800.00	44800.00	25200.00	27.88	44800.00
# of Walls, Perimeter	Roof:No Roof	Roof:No Roof	Roof:No Roof	Roof:	Roof:No Roof
Perimeter Mult.	+ -3506 = 41294	+ -3506 = 41294	+ -2435 = 22765	+ 0.00 = 27.88	+ -3506 = 41294
Height	80	80	60	Apron:	80
Story Height Mult.	N/A	N/A	N/A	+ 0.00 = 27.88	N/A
Heating System	N/A	N/A	N/A	FeederNo Controler	N/A
Heat Adj./SF	N/A	N/A	N/A	+ 0.00 = 27.88	N/A
Misc. Adjustment	N/A	N/A	N/A	N/A	N/A
Misc. Adj./SF	N/A	N/A	N/A	N/A	N/A
County Multiplier	X 1.40 = 57811.58	X 1.40 = 57811.58	X 1.40 = 31871.37	X 1.40 = 39.03	X 1.40 = 57811.58
Final Rate/SF	$57811.58	$57811.58	$31871.37	$39.03	$57811.58
Length/Width/Area	1	1	1	Length: 100	1
Cost New	$ 57,812	$ 57,812	$ 31,871	$ 3,903	$ 57,812
Phy./Func./Econ. %Good	45/100/100 45.0	45/100/100 45.0	38/100/100 38.0	74/100/100 74.0	45/100/100 45.0
Depreciated Cost	$ 26,015	$ 26,015	$ 12,111	$ 2,888	$ 26,015
+ Unit-In-Place Items	$	$	$	$	$
Description, Size X Rate X %Good = Cost Itemized ->\ Unit-In-Place ->\ Items ->					
E.C.F.	X 0.95	X 0.95	X 0.95	X 0.95	X 0.95
Est. True Cash Value	$ 24,714	$ 24,714	$ 11,506	$ 2,744	$ 24,714
Comments:					

Total Estimated True Cash Value of Agricultural Improvements / This Card: 88392 / All Cards: 120364

Information herein deemed reliable but not guaranteed

Building Type	Bunker or Trench Silo	Barn, General Purpose			
Year Built					
Class/Construction	Poles & Braces	D,Pole			
Quality/Exterior	N/A	Average			
Base Rate/SF	316.00	14.15			
# of Walls, Perimeter	N/A	4 Wall , 228			
Perimeter Mult.	N/A	X 0.998 = 14.12			
Height	N/A				
Story Height Mult.	N/A	X 0.946 = 13.36			
Heating System	N/A	No Heating/Cooling			
Heat Adj./SF	N/A				
Misc. Adjustment	N/A				
Misc. Adj./SF	N/A				
County Multiplier	X 1.40 = 442.40	X 1.40 = 18.70			
Final Rate/SF	$442.40	$18.70			
Length/Width/Area	280 x 84 = 23520	80 x 34 = 2720			
Cost New	$ 19,820	$ 50,872			
Phy./Func./Econ. %Good	62/100/100 62.0	42/100/100 42.0			
Depreciated Cost	$ 12,288	$ 21,366			
+ Unit-In-Place Items	$	$			
Description, Size X Rate X %Good = Cost Itemized ->\ Unit-In-Place ->\ Items ->					
E.C.F.	X 0.95	X 0.95			
Est. True Cash Value	$ 11,674	$ 20,298			
Comments:					

Total Estimated True Cash Value of Agricultural Improvements / This Card: 31972 / All Cards: 120364

Information herein deemed reliable but not guaranteed

FOIA Request for Public Records

Michigan Freedom of Information Act, Public Act 442 of 1976, MCL 15.231, *et seq.*

Request No.: _____ Date Received: _____ Check if received via: [ ] Email [ ] Fax [ ] Other Electronic Method

Date delivered to junk/spam folder: _____

(Please Print or Type) Date discovered in junk/spam folder: _____

Name	Aliya Spotts	Phone	810.599.6296
Email Address	FOIA@asti-env.com	Fax	810-225-3800
Street	10448 Citation Dr, Suite 100		
City	Brighton	State MI	Zip 48116

Request for: [●] Copy [ ] Certified copy [ ] Record inspection [ ] Subscription to record issued on regular basis

Delivery Method: [ ] Will pick up [ ] Will make own copies onsite [ ] Mail to address above [●] Email to address above

[ ] Deliver on digital media provided by the City: _____

Note: The City is not required to provide records in a digital format or on digital media if the City does not already have the technological capability to do so.

Describe the public record(s) as specifically as possible. You may use this form or attach additional sheets:

-ASTI Environmental is conducting an environmental assessment and respectfully request any:
-Assessing Department records regarding historical and current assessing records and field sheets;
-Building Department records regarding any building permits, site plans, sketches, code violations, and inspections;
-Zoning Department: records regarding permits and maps; and
-Fire Department records regarding any reports of spills/releases, above ground and underground storage tanks, landfilling, fires, code violations, and Hazmat incidents.
We would like to go back as far as possible to present in the history of the property , if costs exceed $50, please let me know before proceeding to FOIA@asti-env.com Thank you!

Vacant land on Herman Rd, Tax ID: P-16-18-200-007

Herman Rd. - GT Ranch
map attached

and/or any historical addresses associated

Requestor's Signature	Date 09.11.24

(Complete both sides)

No Records

Norvell Cemetery
Austin Rd
W Austin Rd
Manchester Dollhouse and Model Supply
Camp Dainava
Approximate Subject Property
Watkins Lake State Park
Watkins Lake State Park
Watkins Lake State Park and County Preserve
Preserve
Pond A
Watkins Lake
Herman Rd
Horning Rd
Area A
Hardcastle Rd
Pond B
Jackson County
Washtenaw County

FOIA Request for Public Records

Michigan Freedom of Information Act, Public Act 442 of 1976, MCL 15.231, *et seq.*

Request No.: _____ Date Received: _____ Check if received via: [ ] Email [ ] Fax [ ] Other Electronic Method

Date delivered to junk/spam folder: _____

(Please Print or Type) Date discovered in junk/spam folder: _____

Name: Aliya Spotts		Phone: 810.599.6296
Email Address: FOIA@asti-env.com		Fax: 810-225-3800
Street: 10448 Citation Dr, Suite 100		
City: Brighton	State: MI	Zip: 48116

Request for: [●] Copy [ ] Certified copy [ ] Record inspection [ ] Subscription to record issued on regular basis

Delivery Method: [ ] Will pick up [ ] Will make own copies onsite [ ] Mail to address above [●] Email to address above

[ ] Deliver on digital media provided by the City: _____

Note: The City is not required to provide records in a digital format or on digital media if the City does not already have the technological capability to do so.

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-Fire Department records regarding any reports of spills/releases, above ground and underground storage tanks, landfilling, fires, code violations, and Hazmat incidents.
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Vacant land on Herman Rd, Tax ID: P-16-18-200-007

Herman Rd. - GT Ranch
map attached

and/or any historical addresses associated

Requestor's Signature [signature]	Date 09.11.24

(Complete both sides)

NO records

Northern Portions
14760 Hornung Road
Brooklyn, MI 49230

Inquiry Number: 7877215.2s
January 22, 2025

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	9
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting Source Map	A-8
Physical Setting Source Map Findings	A-9
Physical Setting Source Records Searched	PSGR-1

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

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E1527 - 21), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E2247 - 16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E1528 - 22) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

14760 HORNUNG ROAD
BROOKLYN, MI 49230

COORDINATES

Latitude (North):	42.1407230 - 42˚ 8' 26.60''
Longitude (West):	84.1360380 - 84˚ 8' 9.73''
Universal Tranverse Mercator:	Zone 16
UTM X (Meters):	736679.8
UTM Y (Meters):	4669157.5
Elevation:	926 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	14450254 NORVELL, MI
Version Date:	2019
Northeast Map:	14450238 MANCHESTER, MI
Version Date:	2019
Southeast Map:	14450292 TIPTON, MI
Version Date:	2019
Southwest Map:	14450260 ONSTED, MI
Version Date:	2019

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20200701
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
14760 HORNUNG ROAD
BROOKLYN, MI 49230

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

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

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

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

Lists of Federal Delisted NPL sites

Delisted NPL ---------- National Priority List Deletions

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS ---------- Corrective Action Report

Lists of Federal RCRA TSD facilities

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

Lists of Federal RCRA generators

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-VSQG ---------- RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System

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

Federal ERNS list

ERNS ..... Emergency Response Notification System

Lists of state- and tribal hazardous waste facilities

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

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF ..... Solid Waste Facilities Database

Lists of state and tribal leaking storage tanks

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

Lists of state and tribal registered storage tanks

FEMA UST ..... Underground Storage Tank Listing
UST ..... Underground Storage Tank Facility List
AST ..... Aboveground Tanks
INDIAN UST ..... Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

AUL ..... Engineering and Institutional Controls

Lists of state and tribal voluntary cleanup sites

INDIAN VCP ..... Voluntary Cleanup Priority Listing

Lists of state and tribal brownfield sites

BROWNFIELDS ..... Brownfields and UST Site Database

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

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

Local Lists of Landfill / Solid Waste Disposal Sites

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

EXECUTIVE SUMMARY

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL	Delisted National Clandestine Laboratory Register
INVENTORY	Inventory of Facilities
PART 201	Part 201 Site List
CDL	Clandestine Drug Lab Listing
DEL PART 201	Delisted List of Contaminated Sites
US CDL	National Clandestine Laboratory Register

Local Land Records

LIENS	Lien List
LIENS 2	CERCLA Lien Information

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
SPILLS	Pollution Emergency Alerting System

Other Ascertainable Records

RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated
FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
MINES MRDS	Mineral Resources Data System

EXECUTIVE SUMMARY

ABANDONED MINES	Abandoned Mines
FINDS	Facility Index System/Facility Registry System
DOCKET HWC	Hazardous Waste Compliance Docket Listing
ECHO	Enforcement & Compliance History Information
UXO	Unexploded Ordnance Sites
FUELS PROGRAM	EPA Fuels Program Registered Listing
PFAS NPL	Superfund Sites with PFAS Detections Information
PFAS FEDERAL SITES	Federal Sites PFAS Information
PFAS TRIS	List of PFAS Added to the TRI
PFAS TSCA	PFAS Manufacture and Imports Information
PFAS RCRA MANIFEST	PFAS Transfers Identified In the RCRA Database Listing
PFAS ATSDR	PFAS Contamination Site Location Listing
PFAS WQP	Ambient Environmental Sampling for PFAS
PFAS NPDES	Clean Water Act Discharge Monitoring Information
PFAS PROJECT	NORTHEASTERN UNIVERSITY PFAS PROJECT
PFAS ECHO	Facilities in Industries that May Be Handling PFAS Listing
PFAS ECHO FIRE TRAIN	Facilities in Industries that May Be Handling PFAS Listing
PFAS PT 139 AIRPORT	All Certified Part 139 Airports PFAS Information Listing
AQUEOUS FOAM NRC	Aqueous Foam Related Incidents Listing
BIOSOLIDS	ICIS-NPDES Biosolids Facility Data
UST FINDER	UST Finder Database
UST FINDER RELEASE	UST Finder Releases Database
E MANIFEST	Hazardous Waste Electronic Manifest System
PFAS	PFAS Contaminated Sites Listing
AQUEOUS FOAM	Aqueous Film Forma Foam Listing
AIRS	Permit and Emissions Inventory Data
ASBESTOS	ASBESTOS
BEA	Baseline Environmental Assessment Database
COAL ASH	Coal Ash Disposal Sites
DRYCLEANERS	Drycleaning Establishments
Financial Assurance	Financial Assurance Information Listing
LEAD	Lead Information Registry Listing
LEAD	Lead Information Registry Listing
MANIFEST	Hazardous Waste Manifest Data
NPDES	List of Active NPDES Permits
UIC	Underground Injection Wells Database
WDS	Waste Data System
ENVIRO	Michigan Enviro Information
SSCUP	State Owned Sites Cleanup Program List

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto	EDR Exclusive Historical Auto Stations
EDR Hist Cleaner	EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA PART 201	Recovered Government Archive State Hazardous Waste Facilities List

RGA LF---------- Recovered Government Archive Solid Waste Facilities List
RGA LUST---------- Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

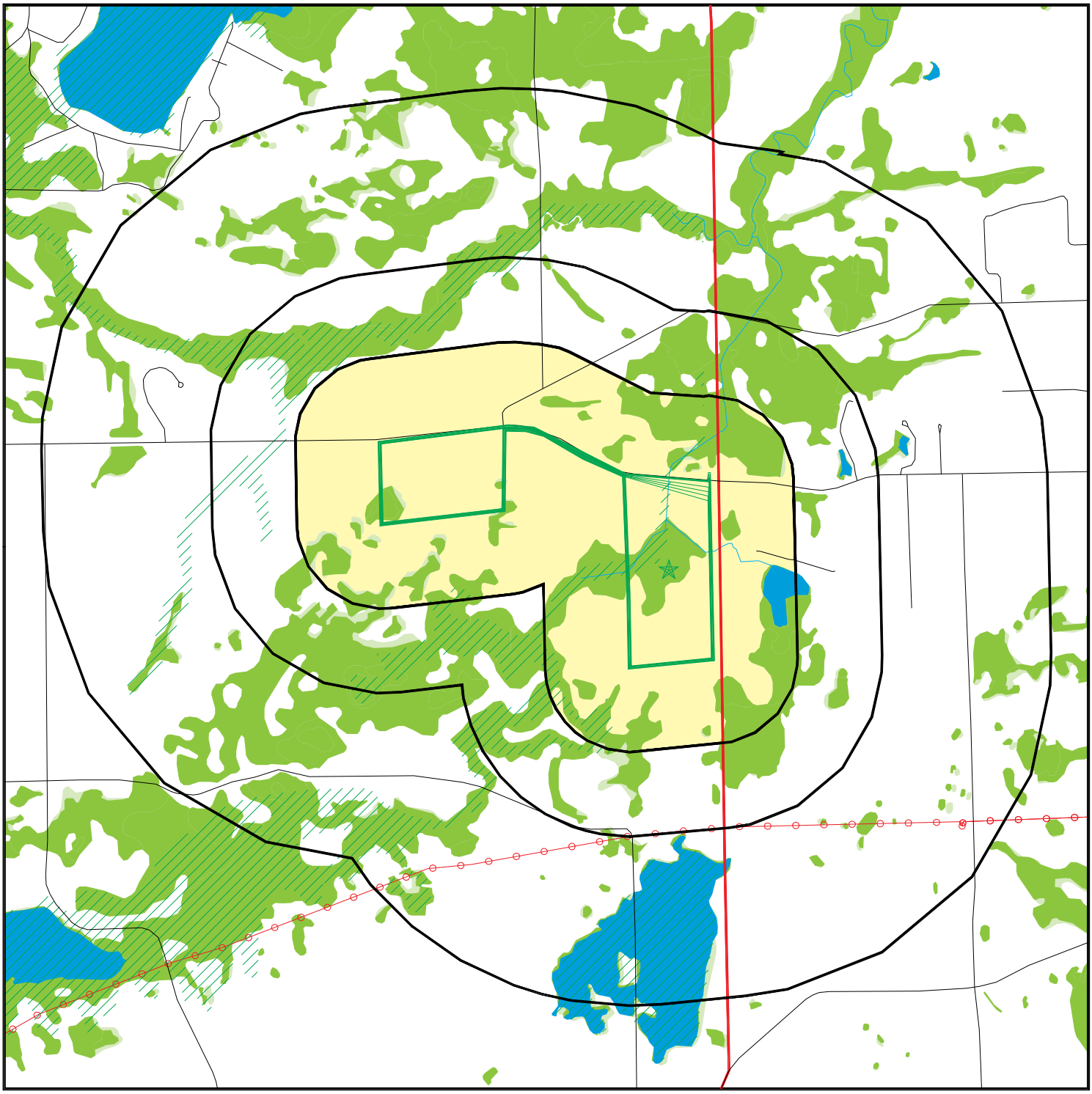
Surrounding sites were not identified.

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

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 7877215.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites

0 1/4 1/2 1 Miles

- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands

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

SITE NAME: Northern Portions ADDRESS: 14760 Hornung Road Brooklyn MI 49230 LAT/LONG: 42.140723 / 84.136038	CLIENT: Applied Science & Technology CONTACT: BAILEY BISHOP INQUIRY #: 7877215.2s DATE: January 22, 2025 3:26 pm

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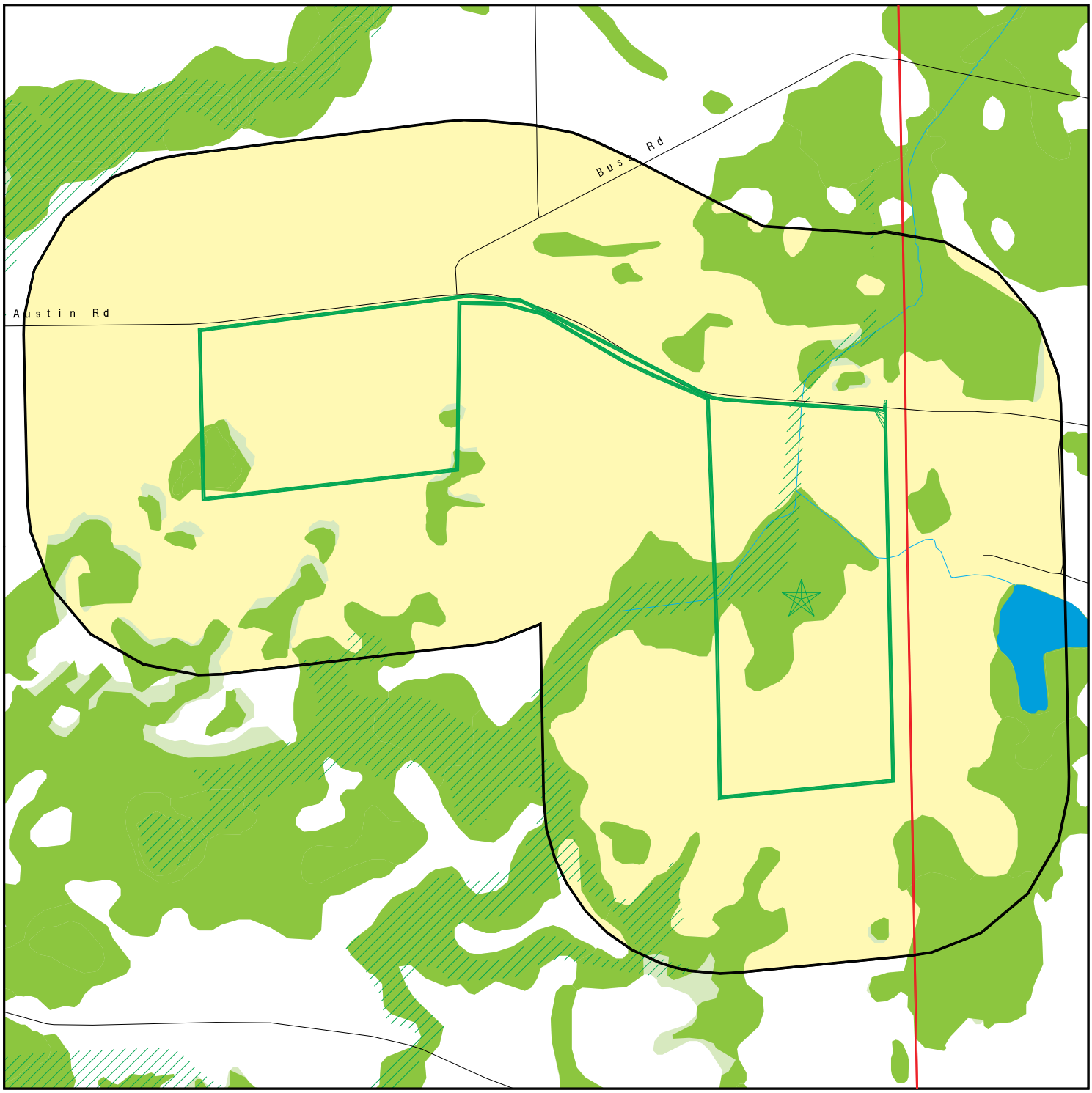
DETAIL MAP - 7877215.2S



0 1/8 1/4 1/2 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands

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

SITE NAME: Northern Portions ADDRESS: 14760 Hornung Road Brooklyn MI 49230 LAT/LONG: 42.140723 / 84.136038	CLIENT: Applied Science & Technology CONTACT: BAILEY BISHOP INQUIRY #: 7877215.2s DATE: January 22, 2025 3:30 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Lists of Federal NPL (Superfund) sites								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Lists of Federal Delisted NPL sites								
Delisted NPL	1.000		0	0	0	0	NR	0
Lists of Federal sites subject to CERCLA removals and CERCLA orders								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Lists of Federal CERCLA sites with NFRAP								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA facilities undergoing Corrective Action								
CORRACTS	1.000		0	0	0	0	NR	0
Lists of Federal RCRA TSD facilities								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA generators								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
Lists of state- and tribal hazardous waste facilities								
SHWS	1.000		0	0	0	0	NR	0
Lists of state and tribal landfills and solid waste disposal facilities								
SWF/LF	0.500		0	0	0	NR	NR	0
Lists of state and tribal leaking storage tanks								
LUST	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
Lists of state and tribal registered storage tanks								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
AUL	0.500		0	0	0	NR	NR	0
Lists of state and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
Lists of state and tribal brownfield sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
HIST LF	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
INVENTORY	0.500		0	0	0	NR	NR	0
PART 201	1.000		0	0	0	0	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
DEL PART 201	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
SPILLS	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
MINES MRDS	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
PFAS NPL	0.250		0	0	NR	NR	NR	0
PFAS FEDERAL SITES	0.250		0	0	NR	NR	NR	0
PFAS TRIS	0.250		0	0	NR	NR	NR	0
PFAS TSCA	0.250		0	0	NR	NR	NR	0
PFAS RCRA MANIFEST	0.250		0	0	NR	NR	NR	0
PFAS ATSDR	0.250		0	0	NR	NR	NR	0
PFAS WQP	0.250		0	0	NR	NR	NR	0
PFAS NPDES	0.250		0	0	NR	NR	NR	0
PFAS PROJECT	0.250		0	0	NR	NR	NR	0
PFAS ECHO	0.250		0	0	NR	NR	NR	0
PFAS ECHO FIRE TRAIN	0.250		0	0	NR	NR	NR	0
PFAS PT 139 AIRPORT	0.250		0	0	NR	NR	NR	0
AQUEOUS FOAM NRC	0.250		0	0	NR	NR	NR	0
BIOSOLIDS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST FINDER	0.250		0	0	NR	NR	NR	0
UST FINDER RELEASE	0.500		0	0	0	NR	NR	0
E MANIFEST	0.250		0	0	NR	NR	NR	0
PFAS	0.250		0	0	NR	NR	NR	0
AQUEOUS FOAM	0.250		0	0	NR	NR	NR	0
AIRS	0.001		0	NR	NR	NR	NR	0
ASBESTOS	0.001		0	NR	NR	NR	NR	0
BEA	0.500		0	0	0	NR	NR	0
COAL ASH	0.500		0	0	0	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
LEAD	0.001		0	NR	NR	NR	NR	0
LEAD	0.001		0	NR	NR	NR	NR	0
MANIFEST	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
ENVIRO	0.001		0	NR	NR	NR	NR	0
SSCUP	0.500		0	0	0	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA PART 201	0.001		0	NR	NR	NR	NR	0
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	0	0	0	0	0	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

MAP FINDINGS

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number

NO SITES FOUND

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
		NO SITES FOUND			

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: EPA
Telephone: N/A
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 10
Telephone 206-553-8665

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: EPA
Telephone: N/A
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Lists of Federal Delisted NPL sites

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: EPA
Telephone: N/A
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Quarterly

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/20/2024
Date Data Arrived at EDR: 12/18/2024
Date Made Active in Reports: 12/20/2024
Number of Days to Update: 2

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 12/18/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Quarterly

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The 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 potential NPL site.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Quarterly

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

Lists of Federal RCRA TSD facilities

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

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

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

Lists of Federal RCRA generators

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

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

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 07/15/2024
Date Data Arrived at EDR: 07/17/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 84

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/13/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 07/24/2024
Date Data Arrived at EDR: 08/08/2024
Date Made Active in Reports: 08/15/2024
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/15/2024
Next Scheduled EDR Contact: 12/02/2024
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 07/24/2024
Date Data Arrived at EDR: 08/08/2024
Date Made Active in Reports: 08/15/2024
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/15/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/11/2024
Date Data Arrived at EDR: 06/17/2024
Date Made Active in Reports: 09/04/2024
Number of Days to Update: 79

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/11/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

Lists of state- and tribal hazardous waste facilities

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

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

Date of Government Version: N/A
Date Data Arrived at EDR: 10/31/2013
Date Made Active in Reports: 11/20/2013
Number of Days to Update: 20

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-284-5103
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: No Update Planned

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF: Solid Waste Facilities Database

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 11/27/2024
Number of Days to Update: 71

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-335-4035
Last EDR Contact: 12/11/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Semi-Annually

Lists of state and tribal leaking storage tanks

LUST: Leaking Underground Storage Tank Sites

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 08/01/2024
Date Data Arrived at EDR: 08/07/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 77

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-9837
Last EDR Contact: 10/30/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/11/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

Lists of state and tribal registered storage tanks

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 08/12/2024
Date Data Arrived at EDR: 10/30/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 76

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

UST 2: Underground Storage Tank Listing
A listing of underground storage tank site locations that have unknown owner information.

Date of Government Version: 01/08/2024
Date Data Arrived at EDR: 01/18/2024
Date Made Active in Reports: 04/09/2024
Number of Days to Update: 82

Source: Department of Licensing & Regulatory Affairs
Telephone: 517-373-1820
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

UST: Underground Storage Tank Facility List
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 07/24/2024
Date Data Arrived at EDR: 08/06/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 78

Source: Department of Licensing & Regulatory Affairs
Telephone: 517-373-1820
Last EDR Contact: 11/06/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Annually

AST: Aboveground Tanks
Registered Aboveground Storage Tanks.

Date of Government Version: 08/01/2024
Date Data Arrived at EDR: 08/07/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 77

Source: Department of Licensing & Regulatory Affairs
Telephone: 517-373-1820
Last EDR Contact: 10/30/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: No Update Planned

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/11/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 07/29/2024
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

AUL: Engineering and Institutional Controls
A listing of sites with institutional and/or engineering controls in place.

Date of Government Version: 08/20/2024
Date Data Arrived at EDR: 08/20/2024
Date Made Active in Reports: 08/21/2024
Number of Days to Update: 1

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-4828
Last EDR Contact: 11/13/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Quarterly

Lists of state and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/10/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 07/08/2021
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

Lists of state and tribal brownfield sites

BROWNFIELDS: Brownfields and USTfield Site Database
All state funded Part 201 and 213 sites, as well as LUST sites that have been redeveloped by private entities using the BEA process. Be aware that this is not a list of all of the potential brownfield sites in Michigan.

Date of Government Version: 09/24/2024
Date Data Arrived at EDR: 10/17/2024
Date Made Active in Reports: 01/06/2025
Number of Days to Update: 81

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-4805
Last EDR Contact: 01/14/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

BROWNFIELDS 2: Brownfields Building and Land Site Locations
A listing of brownfield building and land site locations. The listing is a collaborative effort of Michigan Economic Development Corporation, Michigan Economic Developers Association, Detrot Edison, Detroit Area Commercial Board of Realtors

Date of Government Version: 10/15/2024
Date Data Arrived at EDR: 10/22/2024
Date Made Active in Reports: 01/09/2025
Number of Days to Update: 79

Source: Economic Development Corporation
Telephone: 888-522-0103
Last EDR Contact: 01/13/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
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 takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 09/09/2024
Date Data Arrived at EDR: 09/11/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/24/2025
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

HIST LF: Inactive Solid Waste Facilities
The database contains historical information and is no longer updated.

Date of Government Version: 03/01/1997
Date Data Arrived at EDR: 02/28/2003
Date Made Active in Reports: 03/06/2003
Number of Days to Update: 6

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-335-4034
Last EDR Contact: 02/28/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWRCY: Recycling Facilities
A listing of recycling center locations.

Date of Government Version: 06/14/2024
Date Data Arrived at EDR: 06/14/2024
Date Made Active in Reports: 09/06/2024
Number of Days to Update: 84

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-241-5719
Last EDR Contact: 12/10/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 05/05/2025
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 02/07/2024
Date Data Arrived at EDR: 11/13/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 6

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 12/09/2024
Next Scheduled EDR Contact: 05/05/2025
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 05/20/2024
Date Data Arrived at EDR: 08/19/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 51

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: No Update Planned

PART 201: Part 201 Site List

A Part 201 Listed site is a location that has been evaluated and scored by the DEQ using the Part 201 scoring model. The location is or includes a "facility" as defined by Part 201, where there has been a release of a hazardous substance(s) in excess of the Part 201 residential criteria, and/or where corrective actions have not been completed under Part 201 to meet the applicable cleanup criteria for unrestricted residential use. The Part 201 List does not include all of the sites of contamination that are subject to regulation under Part 201 because owners are not required to inform the DEQ about the sites and can pursue cleanup independently. Sites of environmental contamination that are not known to DEQ are not on the list, nor are sites with releases that resulted in low environmental impact.

Date of Government Version: 10/15/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 01/06/2025
Number of Days to Update: 82

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-284-5103
Last EDR Contact: 01/15/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: No Update Planned

INVENTORY: Inventory of Facilities

The Inventory of Facilities has three data sources: Facilities under Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA) identified through state funded or private party response activities (Projects); Facilities under Part 213, Leaking Underground Storage Tanks of the NREPA; and Facilities identified through submittals of Baseline Environmental Assessments (BEA) submitted pursuant to Part 201 or Part 213 of the NREPA. The Part 201 Projects Inventory does not include all of the facilities that are subject to regulation under Part 201 because owners are not required to inform the Department of Environmental Quality (DEQ) about the facilities and can pursue cleanup independently. Facilities that are not known to DEQ are not on the Inventory, nor are locations with releases that resulted in low environmental impact. Part 213 facilities listed here may have more than one release; a list of releases for which corrective actions have been completed and list of releases for which corrective action has not been completed is located on the Leaking Underground Storage Tanks Site Search webpage. The DEQ may or may not have reviewed and concurred with the conclusion that the corrective actions described in a closure report meets criteria. A BEA is a document that new or prospective property owners/operations disclose to the DEQ identifying the property as a facility pursuant to Part 201 and Part 213. The Inventory of BEA Facilities overlaps in part with the Part 201 Projects facilities and Part 213 facilities. There may be more than one BEA for each facility.

Date of Government Version: 10/15/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 01/06/2025
Number of Days to Update: 82

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-284-5136
Last EDR Contact: 01/14/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Quarterly

CDL: Clandestine Drug Lab Listing

A listing of clandestine drug lab locations.

Date of Government Version: 07/17/2024
Date Data Arrived at EDR: 07/31/2024
Date Made Active in Reports: 08/08/2024
Number of Days to Update: 8

Source: Department of Community Health
Telephone: 517-373-3740
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: No Update Planned

DEL PART 201: Delisted List of Contaminated Sites

A deleted site has been removed from the Part 201 List because information known to the DEQ at the time of the evaluation does not support inclusion on the Part 201 List. This designation is often applied to sites where changes in cleanup criteria resulted in a determination that the site no longer exceeds any applicable cleanup criterion. A delisted site has been removed from the Part 201 List because response actions have reduced the levels of contaminants to concentrations which meet or are below the criteria for unrestricted residential use.

Date of Government Version: 10/15/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 01/06/2025
Number of Days to Update: 82

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-9541
Last EDR Contact: 01/15/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/20/2024
Date Data Arrived at EDR: 08/19/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 51

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Quarterly

Local Land Records

LIENS: Lien List

An Environmental Lien is a charge, security, or encumbrance upon title to a property to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of hazardous substances or petroleum products upon a property, including (but not limited to) liens imposed pursuant to CERCLA 42 USC * 9607(1) and similar state or local laws. In other words: a lien placed upon a property's title due to an environmental condition

Date of Government Version: 07/22/2024
Date Data Arrived at EDR: 10/08/2024
Date Made Active in Reports: 12/23/2024
Number of Days to Update: 76

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-241-7603
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/14/2024
Date Data Arrived at EDR: 06/17/2024
Date Made Active in Reports: 06/24/2024
Number of Days to Update: 7

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 12/11/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

PEAS: Pollution Emergency Alerting System

Environmental pollution emergencies reported to the Department of Environmental Quality such as tanker accidents, pipeline breaks, and release of reportable quantities of hazardous substances.

Date of Government Version: 09/27/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 01/06/2025
Number of Days to Update: 82

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-8427
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Quarterly

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

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

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 10/01/2024
Date Data Arrived at EDR: 11/12/2024
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 70

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 11/12/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 06/07/2021
Date Data Arrived at EDR: 07/13/2021
Date Made Active in Reports: 03/09/2022
Number of Days to Update: 239

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/07/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 12/30/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 07/30/2021
Date Data Arrived at EDR: 02/03/2023
Date Made Active in Reports: 02/10/2023
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 11/04/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/20/2024
Number of Days to Update: 94

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA Watch List

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: No Update Planned

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 10/31/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 06/14/2022
Date Made Active in Reports: 03/24/2023
Number of Days to Update: 283

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/24/2025
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2022
Date Data Arrived at EDR: 11/13/2023
Date Made Active in Reports: 02/07/2024
Number of Days to Update: 86

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 11/14/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 10/15/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 90

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/15/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 10/24/2024
Date Data Arrived at EDR: 11/01/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 18

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 10/01/2024
Date Data Arrived at EDR: 10/23/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 09/19/2023
Date Data Arrived at EDR: 10/03/2023
Date Made Active in Reports: 10/19/2023
Number of Days to Update: 16

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 10/02/2024
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 100

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/12/2024
Date Data Arrived at EDR: 10/17/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 33

Source: Nuclear Regulatory Commission
Telephone: 301-415-0717
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2023
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 90
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 11/20/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 11/20/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 10/31/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 10/04/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 51

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2024
Date Data Arrived at EDR: 10/09/2024
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 93

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 12/30/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2021
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 03/20/2023
Number of Days to Update: 11

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 12/30/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 03/03/2023
Date Data Arrived at EDR: 03/03/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 98

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 05/08/2024
Date Data Arrived at EDR: 08/14/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 14

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 11/14/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 10/01/2024
Date Data Arrived at EDR: 10/02/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 7

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Quarterly

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/06/2024
Date Data Arrived at EDR: 08/14/2024
Date Made Active in Reports: 08/15/2024
Number of Days to Update: 1

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 11/18/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/02/2024
Date Data Arrived at EDR: 08/20/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 50

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System

Mineral Resources Data System

Date of Government Version: 08/23/2022
Date Data Arrived at EDR: 11/22/2022
Date Made Active in Reports: 02/28/2023
Number of Days to Update: 98

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/10/2024
Date Data Arrived at EDR: 09/11/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 69

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 12/10/2024
Next Scheduled EDR Contact: 03/17/2025
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 08/13/2024
Date Data Arrived at EDR: 08/20/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 8

Source: EPA
Telephone: (312) 353-2000
Last EDR Contact: 11/20/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites
A listing of unexploded ordnance site locations

Date of Government Version: 09/06/2023
Date Data Arrived at EDR: 09/13/2023
Date Made Active in Reports: 12/11/2023
Number of Days to Update: 89

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 01/06/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/06/2021
Date Data Arrived at EDR: 05/21/2021
Date Made Active in Reports: 08/11/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 11/13/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information
ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 12/21/2024
Date Data Arrived at EDR: 12/27/2024
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 14

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 12/27/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 11/08/2024
Date Data Arrived at EDR: 11/08/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 67

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 11/08/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Quarterly

PFAS NPL: Superfund Sites with PFAS Detections Information
EPA's Office of Land and Emergency Management and EPA Regional Offices maintain data describing what is known about site investigations, contamination, and remedial actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) where PFAS is present in the environment.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 703-603-8895
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS FEDERAL SITES: Federal Sites PFAS Information
Several federal entities, such as the federal Superfund program, Department of Defense, National Aeronautics and Space Administration, Department of Transportation, and Department of Energy provided information for sites with known or suspected detections at federal facilities.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS TSCA: PFAS Manufacture and Imports Information

EPA issued the Chemical Data Reporting (CDR) Rule under the Toxic Substances Control Act (TSCA) and requires chemical manufacturers and facilities that manufacture or import chemical substances to report data to EPA. EPA publishes non-confidential business information (non-CBI) and includes descriptive information about each site, corporate parent, production volume, other manufacturing information, and processing and use information.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS TRIS: List of PFAS Added to the TRI

Section 7321 of the National Defense Authorization Act for Fiscal Year 2020 (NDAA) immediately added certain per- and polyfluoroalkyl substances (PFAS) to the list of chemicals covered by the Toxics Release Inventory (TRI) under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) and provided a framework for additional PFAS to be added to TRI on an annual basis.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-566-0250
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS RCRA MANIFEST: PFAS Transfers Identified In the RCRA Database Listing

To work around the lack of PFAS waste codes in the RCRA database, EPA developed the PFAS Transfers dataset by mining e-Manifest records containing at least one of these common PFAS keywords: PFAS, PFOA, PFOS, PERFL, AFFF, GENX, GEN-X (plus the VT waste codes). These keywords were searched for in the following text fields: Manifest handling instructions (MANIFEST_HANDLING_INSTR), Non-hazardous waste description (NON_HAZ_WASTE_DESCRIPTION), DOT printed information (DOT_PRINTED_INFORMATION), Waste line handling instructions (WASTE_LINE_HANDLING_INSTR), Waste residue comments (WASTE_RESIDUE_COMMENTS).

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS ATSDR: PFAS Contamination Site Location Listing

PFAS contamination site locations from the Department of Health & Human Services, Center for Disease Control & Prevention. ATSDR is involved at a number of PFAS-related sites, either directly or through assisting state and federal partners. As of now, most sites are related to drinking water contamination connected with PFAS production facilities or fire training areas where aqueous film-forming firefighting foam (AFFF) was regularly used.

Date of Government Version: 06/24/2020
Date Data Arrived at EDR: 03/17/2021
Date Made Active in Reports: 11/08/2022
Number of Days to Update: 601

Source: Department of Health & Human Services
Telephone: 202-741-5770
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 05/05/2025
Data Release Frequency: Varies

PFAS WQP: Ambient Environmental Sampling for PFAS

The Water Quality Portal (WQP) is a part of a modernized repository storing ambient sampling data for all environmental media and tissue samples. A wide range of federal, state, tribal and local governments, academic and non-governmental organizations and individuals submit project details and sampling results to this public repository. The information is commonly used for research and assessments of environmental quality.

Date of Government Version: 12/13/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS NPDES: Clean Water Act Discharge Monitoring Information

Any discharger of pollutants to waters of the United States from a point source must have a National Pollutant Discharge Elimination System (NPDES) permit. The process for obtaining limits involves the regulated entity (permittee) disclosing releases in a NPDES permit application and the permitting authority (typically the state but sometimes EPA) deciding whether to require monitoring or monitoring with limits. Caveats and Limitations: Less than half of states have required PFAS monitoring for at least one of their permittees and fewer states have established PFAS effluent limits for permittees. New rulemakings have been initiated that may increase the number of facilities monitoring for PFAS in the future.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS PROJECT: NORTHEASTERN UNIVERSITY PFAS PROJECT

The PFAS Contamination Site Tracker records qualitative and quantitative data from each site in a chart, specifically examining discovery, contamination levels, government response, litigation, health impacts, media coverage, and community characteristics. All data presented in the chart were extracted from government websites, such as state health departments or the Environmental Protection Agency, and news articles.

Date of Government Version: 05/19/2023
Date Data Arrived at EDR: 04/05/2024
Date Made Active in Reports: 06/06/2024
Number of Days to Update: 62

Source: Social Science Environmental Health Research Institute
Telephone: N/A
Last EDR Contact: 12/05/2024
Next Scheduled EDR Contact: 03/17/2025
Data Release Frequency: Varies

PFAS ECHO: Facilities in Industries that May Be Handling PFAS Listing

Regulators and the public have expressed interest in knowing which regulated entities may be using PFAS. EPA has developed a dataset from various sources that show which industries may be handling PFAS. Approximately 120,000 facilities subject to federal environmental programs have operated or currently operate in industry sectors with processes that may involve handling and/or release of PFAS.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS ECHO FIRE TRAIN: Facilities in Industries that May Be Handling PFAS Listing

A list of fire training sites was added to the Industry Sectors dataset using a keyword search on the permitted facilitys name to identify sites where fire-fighting foam may have been used in training exercises. Additionally, you may view an example spreadsheet of the subset of fire training facility data, as well as the keywords used in selecting or deselecting a facility for the subset. as well as the keywords used in selecting or deselecting a facility for the subset. These keywords were tested to maximize accuracy in selecting facilities that may use fire-fighting foam in training exercises, however, due to the lack of a required reporting field in the data systems for designating fire training sites, this methodology may not identify all fire training sites or may potentially misidentify them.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS PT 139 AIRPORT: All Certified Part 139 Airports PFAS Information Listing

Since July 1, 2006, all certified part 139 airports are required to have fire-fighting foam onsite that meet military specifications (MIL-F-24385) (14 CFR 139.317). To date, these military specification fire-fighting foams are fluorinated and have been historically used for training and extinguishing. The 2018 FAA Reauthorization Act has a provision stating that no later than October 2021, FAA shall not require the use of fluorinated AFFF. This provision does not prohibit the use of fluorinated AFFF at Part 139 civilian airports; it only prohibits FAA from mandating its use. The Federal Aviation Administration?s document AC 150/5210-6D - Aircraft Fire Extinguishing Agents provides guidance on Aircraft Fire Extinguishing Agents, which includes Aqueous Film Forming Foam (AFFF).

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

AQUEOUS FOAM NRC: Aqueous Foam Related Incidents Listing

The National Response Center (NRC) serves as an emergency call center that fields initial reports for pollution and railroad incidents and forwards that information to appropriate federal/state agencies for response. The spreadsheets posted to the NRC website contain initial incident data that has not been validated or investigated by a federal/state response agency. Response center calls from 1990 to the most recent complete calendar year where there was indication of Aqueous Film Forming Foam (AFFF) usage are included in this dataset. NRC calls may reference AFFF usage in the ?Material Involved? or ?Incident Description? fields.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-267-2675
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PCS: Permit Compliance System

PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 12/16/2016
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 03/10/2017
Number of Days to Update: 63

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: No Update Planned

PCS ENF: Enforcement data

No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

BIOSOLIDS: ICIS-NPDES Biosolids Facility Data

The data reflects compliance information about facilities in the biosolids program.

Date of Government Version: 10/13/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 202-564-4700
Last EDR Contact: 01/14/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

UST FINDER RELEASE: UST Finder Releases Database

US EPA's UST Finder data is a national composite of leaking underground storage tanks. This data contains information about, and locations of, leaking underground storage tanks. Data was collected from state sources and standardized into a national profile by EPA's Office of Underground Storage Tanks, Office of Research and Development, and the Association of State and Territorial Solid Waste Management Officials.

Date of Government Version: 06/08/2023
Date Data Arrived at EDR: 10/31/2023
Date Made Active in Reports: 01/18/2024
Number of Days to Update: 79

Source: Environmental Protecton Agency
Telephone: 202-564-0394
Last EDR Contact: 11/06/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Semi-Annually

UST FINDER: UST Finder Database

EPA developed UST Finder, a web map application containing a comprehensive, state-sourced national map of underground storage tank (UST) and leaking UST (LUST) data. It provides the attributes and locations of active and closed USTs, UST facilities, and LUST sites from states and from Tribal lands and US territories . UST Finder contains information about proximity of UST facilities and LUST sites to: surface and groundwater public drinking water protection areas; estimated number of private domestic wells and number of people living nearby; and flooding and wildfires.

Date of Government Version: 06/08/2023
Date Data Arrived at EDR: 10/04/2023
Date Made Active in Reports: 01/18/2024
Number of Days to Update: 106

Source: Environmental Protection Agency
Telephone: 202-564-0394
Last EDR Contact: 11/06/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

E MANIFEST: Hazardous Waste Electronic Manifest System

EPA established a national system for tracking hazardous waste shipments electronically. This system, known as ?e-Manifest,? will modernize the nation?s cradle-to-grave hazardous waste tracking process while saving valuable time, resources, and dollars for industry and states.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/20/2024
Number of Days to Update: 94

Source: Environmental Protection Agency
Telephone: 833-501-6826
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Varies

PFAS: PFAS Contaminated Sites Listing

PFAS have been widely used in numerous industrial and residential applications since the 1950a??s. Their stability and unique chemical properties produce waterproof, stain resistant, and nonstick qualities in products. They are found in some firefighting foams and a wide range of consumer products such as carpet treatments, non-stick cookware, water-resistant fabrics, food packaging materials, and personal care products.

Date of Government Version: 02/15/2024
Date Data Arrived at EDR: 08/06/2024
Date Made Active in Reports: 10/24/2024
Number of Days to Update: 79

Source: Department of Environment, Great Lakes & Energy
Telephone: 517-284-9278
Last EDR Contact: 11/06/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

AQUEOUS FOAM: Aqueous Film Forma Foam Listing

Sites with Aqueous Film Forming Foam contamination, as reported to the Department of Environment, Great Lakes & Energy. AFFF is a fire suppressant used to extinguish flammable liquid fires such as fuel fires.

Date of Government Version: 10/22/2024
Date Data Arrived at EDR: 10/25/2024
Date Made Active in Reports: 01/09/2025
Number of Days to Update: 76

Source: Department of Environment, Great Lakes & Energy
Telephone: 517-284-9278
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

AIRS: Permit and Emissions Inventory Data

Permit and emissions inventory data.

Date of Government Version: 09/12/2024
Date Data Arrived at EDR: 09/13/2024
Date Made Active in Reports: 11/25/2024
Number of Days to Update: 73

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-7074
Last EDR Contact: 12/04/2024
Next Scheduled EDR Contact: 03/24/2025
Data Release Frequency: Annually

ASBESTOS: Asbestos Notification Listing

Asbestos

Date of Government Version: 09/30/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 7

Source: Department of Licensing & Regulatory Affairs
Telephone: 517-284-7699
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Quarterly

BEA: Baseline Environmental Assessment Database

A BEA is a document that new or prospective property owners/operations disclose to the DEQ identifying the property as a facility pursuant to Part 201 and Part 213. The Inventory of BEA Facilities overlaps in part with the Part 201 Projects facilities and Part 213 facilities. There may be more than one BEA for each facility.

Date of Government Version: 08/15/2024
Date Data Arrived at EDR: 08/16/2024
Date Made Active in Reports: 11/04/2024
Number of Days to Update: 80

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-9541
Last EDR Contact: 10/30/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: No Update Planned

COAL ASH: Coal Ash Disposal Sites

Coal fired power plants in Southeast Michigan that have coal ash handling on site.

Date of Government Version: 04/01/2021
Date Data Arrived at EDR: 04/06/2021
Date Made Active in Reports: 06/24/2021
Number of Days to Update: 79

Source: Department of Environment, Great Lakes, and Energy
Telephone: 586-753-3754
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

DRYCLEANERS: Drycleaning Establishments

A listing of drycleaning facilities in Michigan.

Date of Government Version: 04/25/2024
Date Data Arrived at EDR: 07/09/2024
Date Made Active in Reports: 10/02/2024
Number of Days to Update: 85

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-335-4586
Last EDR Contact: 01/07/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Quarterly

FIN ASSURANCE 1: Financial Assurance Information Listing

Financial assurance information.

Date of Government Version: 03/02/2024
Date Data Arrived at EDR: 04/04/2024
Date Made Active in Reports: 07/02/2024
Number of Days to Update: 89

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-335-6610
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Semi-Annually

FIN ASSURANCE 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 09/13/2024
Date Data Arrived at EDR: 09/18/2024
Date Made Active in Reports: 12/04/2024
Number of Days to Update: 77

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-335-4034
Last EDR Contact: 12/10/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Varies

FIN ASSURANCE 3: Financial Assurance Information Listing

Financial assurance information for underground storage tank facilities.

Date of Government Version: 09/19/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 12/18/2024
Number of Days to Update: 78

Source: Department of Licensing & Regulatory Affairs
Telephone: 517-335-7279
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

LEAD: Lead Information Registry Listing

All properties in this registry received a lead-based paint inspection or a lead risk assessment, and a lead abatement service. A lead-based paint inspection identifies any lead present on the property. The lead risk assessment determines if any of the lead found is a hazard. Lead abatement services address or remove the lead hazards.

Date of Government Version: 02/28/2024
Date Data Arrived at EDR: 02/29/2024
Date Made Active in Reports: 05/21/2024
Number of Days to Update: 82

Source: Department of Health & Human Services
Telephone: 517-335-9390
Last EDR Contact: 11/19/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Varies

LEAD CERT: Lead Safe Housing Registry

A listing of Michigan properties included in the Lead Safe Housing Registry.

Date of Government Version: 03/25/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 82

Source: Department of Community Health
Telephone: 517-335-9699
Last EDR Contact: 11/19/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Quarterly

MI MANIFEST: Hazardous Waste Manifest Data

A generator who transports, or offers for transportation, hazardous waste for off-site treatment, storage or disposal must prepare a hazardous waste manifest to accompany such shipment.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 06/23/2023
Date Made Active in Reports: 12/12/2023
Number of Days to Update: 172

Source: Department of Environment, Great Lakes & Energy
Telephone: 517-284-6838
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 05/05/2025
Data Release Frequency: Annually

NPDES: List of Active NPDES Permits

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

Date of Government Version: 10/07/2024
Date Data Arrived at EDR: 10/11/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 95

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-241-1300
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

UIC: Underground Injection Wells Database

A listing of underground injection well locations. The UIC Program is responsible for regulating the construction, operation, permitting, and closure of injection wells that place fluids underground for storage or disposal.

Date of Government Version: 10/09/2024
Date Data Arrived at EDR: 10/17/2024
Date Made Active in Reports: 01/07/2025
Number of Days to Update: 82

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-241-1515
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Quarterly

WDS: Waste Data System

The Waste Data System (WDS) tracks activities at facilities regulated by the Solid Waste, Scrap Tire, Hazardous Waste, and Liquid Industrial Waste programs.

Date of Government Version: 12/08/2023
Date Data Arrived at EDR: 12/11/2023
Date Made Active in Reports: 03/05/2024
Number of Days to Update: 85

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-284-6562
Last EDR Contact: 11/07/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Varies

ENVIRO: Michigan Enviro Information

MiEnviro is permitting and compliance for air quality and water resources, including National Pollutant Discharge Elimination System (NPDES), storm water, groundwater discharge, aquatic nuisance control, Part 41 construction, medical waste registrations, and land and water interface permits.

Date of Government Version: 09/30/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 12/18/2024
Number of Days to Update: 78

Source: Department of Environment, Great Lakes, & Energy
Telephone: 800-662-9278
Last EDR Contact: 12/30/2024
Next Scheduled EDR Contact: 04/13/2025
Data Release Frequency: Quarterly

SSCUP: State Owned Sites Cleanup Program List

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.

Date of Government Version: 12/31/2023
Date Data Arrived at EDR: 07/16/2024
Date Made Active in Reports: 10/07/2024
Number of Days to Update: 83

Source: Department of Environment, Great Lakes & Energy
Telephone: 517-284-5153
Last EDR Contact: 07/16/2024
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA PART 201: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/24/2013
Number of Days to Update: 176

Source: Department of Environment, Great Lakes, and Energy
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Environment, Great Lakes, and Energy
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/24/2013
Number of Days to Update: 176

Source: Department of Environment, Great Lakes, and Energy
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 08/05/2024
Date Data Arrived at EDR: 08/06/2024
Date Made Active in Reports: 10/25/2024
Number of Days to Update: 80

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/05/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 11/30/2023
Date Made Active in Reports: 12/01/2023
Number of Days to Update: 1

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/06/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/18/2022
Number of Days to Update: 80

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/07/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 11/27/2024
Next Scheduled EDR Contact: 03/17/2025
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data

Source: Endeavor Business Media

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Day Care Centers, Group & Family Homes
Source: Bureau of REgulatory Services
Telephone: 517-373-8300

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Department of Natural Resources
Telephone: 517-241-2254

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

NORTHERN PORTIONS
14760 HORNUNG ROAD
BROOKLYN, MI 49230

TARGET PROPERTY COORDINATES

Latitude (North):	42.140723 - 42° 8' 26.60''
Longitude (West):	84.136038 - 84° 8' 9.74''
Universal Tranverse Mercator:	Zone 16
UTM X (Meters):	736679.8
UTM Y (Meters):	4669157.5
Elevation:	926 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	14450254 NORVELL, MI
Version Date:	2019
Northeast Map:	14450238 MANCHESTER, MI
Version Date:	2019
Southeast Map:	14450292 TIPTON, MI
Version Date:	2019
Southwest Map:	14450260 ONSTED, MI
Version Date:	2019

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

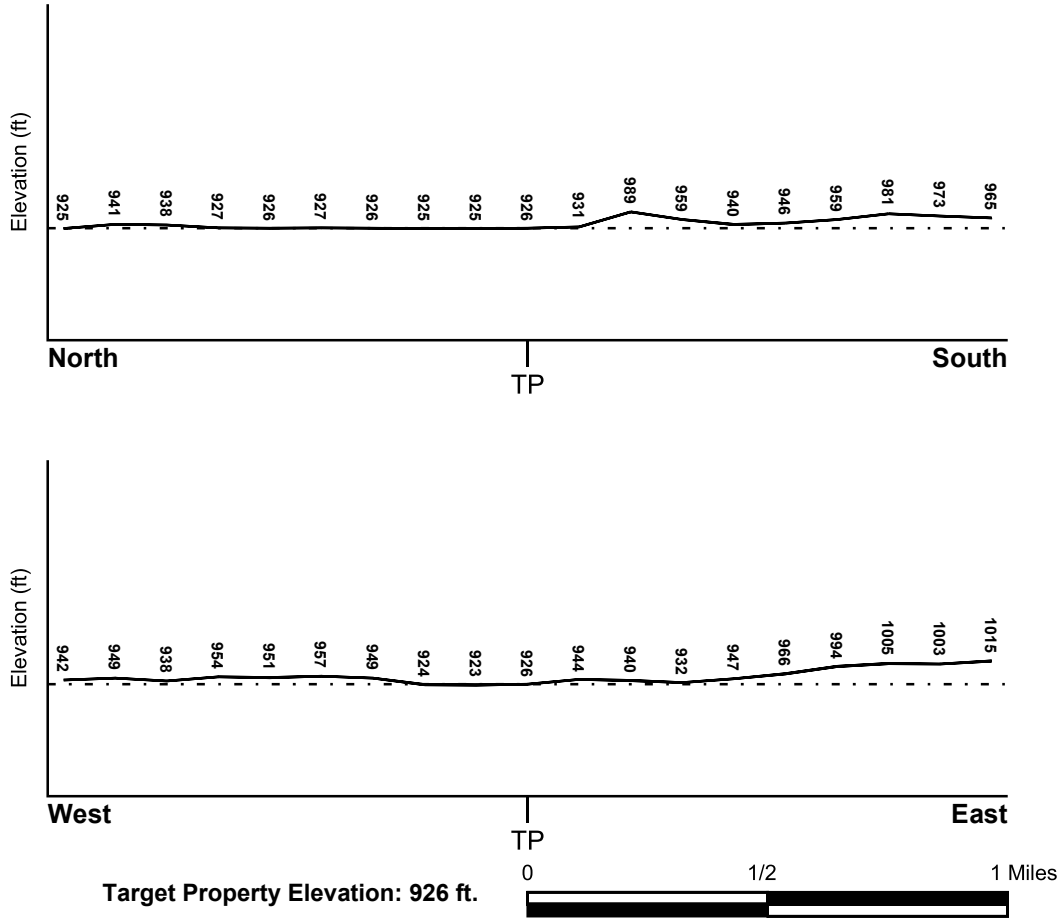
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NNW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
26075C0370D	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
Not Reported	

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
NORVELL	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site-specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Paleozoic
System:	Mississippian
Series:	Osagean and Kinderhookian Series
Code:	M1 *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name:	HOUGHTON
Soil Surface Texture:	muck
Hydrologic Group:	Class A/D - Drained/undrained hydrology class of soils that can be drained and are classified.
Soil Drainage Class:	Very poorly. Soils are wet to the surface most of the time. Depth to water table is less than 1 foot, or is ponded.

Hydric Status: Soil meets the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel:	HIGH
Depth to Bedrock Min:	> 60 inches
Depth to Bedrock Max:	> 60 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	9 inches	muck	A-8	Highly organic soils, Peat.	Max: 6.00 Min: 0.20	Max: 7.80 Min: 4.50
2	9 inches	66 inches	muck	A-8	Highly organic soils, Peat.	Max: 6.00 Min: 0.20	Max: 7.80 Min: 4.50

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: loamy sand
sandy loam
loam
gravelly - sandy loam

Surficial Soil Types: loamy sand
sandy loam
loam
gravelly - sandy loam

Shallow Soil Types: sand
sandy loam
silty clay loam
cobbly - sandy loam
clay loam
gravelly - sandy clay loam

Deeper Soil Types: fine sand
gravelly - sand
sand and gravel
stratified
loam

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
L46	USGS40000481489	1/2 - 1 Mile ESE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

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

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	MI6000000888852	1/4 - 1/2 Mile East
2	MI6000000344706	1/4 - 1/2 Mile North
3	MI6000000344704	1/4 - 1/2 Mile NNW
A4	MI6000000876205	1/4 - 1/2 Mile East
A5	MI6000000883040	1/2 - 1 Mile East
6	MI6000000891028	1/2 - 1 Mile NE
7	MI6000000344705	1/2 - 1 Mile NW
8	MI6000000884467	1/2 - 1 Mile NE
B9	MI6000000352478	1/2 - 1 Mile NNW
B10	MI6000000352482	1/2 - 1 Mile NNW
C11	MI6000000347510	1/2 - 1 Mile NW
C12	MI6000000350661	1/2 - 1 Mile NW
13	MI6000000876198	1/2 - 1 Mile ENE
14	MI6000000881933	1/2 - 1 Mile ENE
D15	MI6000000885031	1/2 - 1 Mile East
E16	MI6000000352484	1/2 - 1 Mile NNW
17	MI6000000891021	1/2 - 1 Mile NNE
18	MI6000000882083	1/2 - 1 Mile East
D19	MI6000000882015	1/2 - 1 Mile East
20	MI6000000341180	1/2 - 1 Mile NNW
E21	MI6000000352479	1/2 - 1 Mile NNW
F22	MI6000000352480	1/2 - 1 Mile NW
23	MI6000000350752	1/2 - 1 Mile NW
G24	MI6000000876200	1/2 - 1 Mile NE
25	MI6000000881359	1/2 - 1 Mile ENE
F26	MI6000000341179	1/2 - 1 Mile NW
G27	MI6000000891030	1/2 - 1 Mile NE
28	MI6000000889486	1/2 - 1 Mile ENE
H29	MI6000000352483	1/2 - 1 Mile NW
I30	MI6000000880690	1/2 - 1 Mile East
J31	MI6000000880596	1/2 - 1 Mile East
J32	MI6000000881606	1/2 - 1 Mile East
I33	MI6000000880716	1/2 - 1 Mile East
34	MI6000000341805	1/2 - 1 Mile NNW
35	MI6000000889603	1/2 - 1 Mile East
I36	MI6000000882583	1/2 - 1 Mile East

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

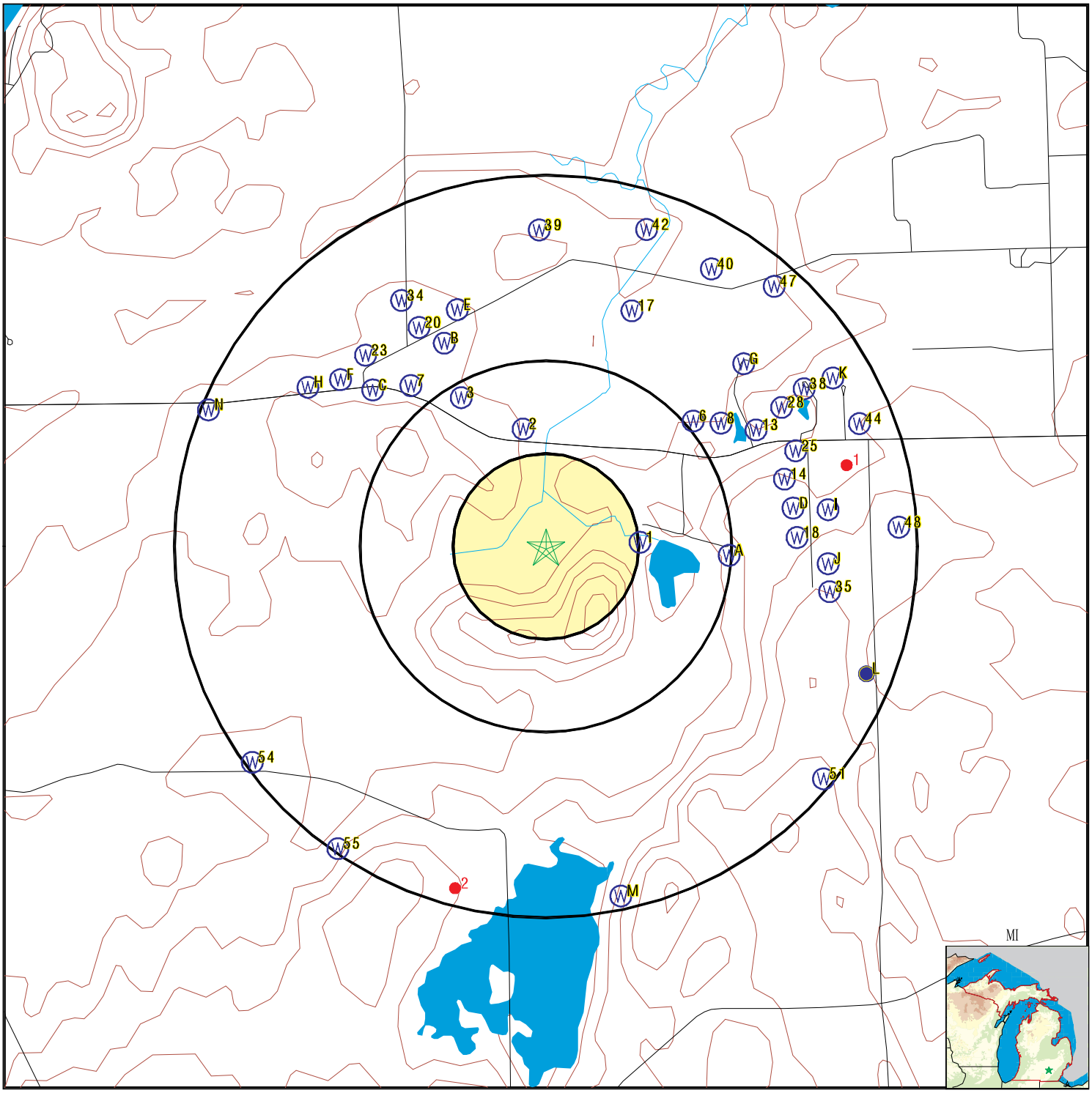
MAP ID	WELL ID	LOCATION FROM TP
H37	MI6000000347986	1/2 - 1 Mile WNW
38	MI6000000891036	1/2 - 1 Mile ENE
39	MI6000000341349	1/2 - 1 Mile North
40	MI6000000876201	1/2 - 1 Mile NNE
K41	MI6000000891034	1/2 - 1 Mile ENE
42	MI6000000879302	1/2 - 1 Mile NNE
K43	MI6000000891029	1/2 - 1 Mile ENE
44	MI6000000891027	1/2 - 1 Mile ENE
L45	MI6000000876203	1/2 - 1 Mile ESE
47	MI6000000891031	1/2 - 1 Mile NE
48	MI6000000891035	1/2 - 1 Mile East
M49	MI6000000886274	1/2 - 1 Mile SSE
M50	MI6000000886275	1/2 - 1 Mile SSE
51	MI6000000899715	1/2 - 1 Mile SE
N52	MI6000000344712	1/2 - 1 Mile WNW
N53	MI6000000344713	1/2 - 1 Mile WNW
54	MI6000000344708	1/2 - 1 Mile SW
55	MI6000000348809	1/2 - 1 Mile SW

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	MIOG13000093853	1/2 - 1 Mile ENE
2	MIOG13000038974	1/2 - 1 Mile SSW

PHYSICAL SETTING SOURCE MAP - 7877215.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	Northern Portions	CLIENT:	Applied Science & Technology
ADDRESS:	14760 Hornung Road	CONTACT:	BAILEY BISHOP
	Brooklyn MI 49230	INQUIRY #:	7877215.2s
LAT/LONG:	42.140723 / 84.136038	DATE:	January 22, 2025 3:31 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
East
1/4 - 1/2 Mile
Higher

MI WELLS **MI6000000888852**

WELLS:

Well ID:	81000023158	Permit #:	WEL2019-00143
Owner:	CAMP DAINAVA	Well Depth (ft):	139
Well Type:	Type III Public	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-2014	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	03-JUN-19
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5.68	Case Depth (ft):	119
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	8	Flowing:	N
Test Drawdown Depth (ft):	20	Test Hours:	2
Test Rate:	60	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	18
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	110		

2
North
1/4 - 1/2 Mile
Higher

MI WELLS **MI6000000344706**

WELLS:

Well ID:	38000007717	Permit #:	8301
Owner:	J. NEIL IANTIS	Well Depth (ft):	56
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	14-SEP-82
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	53
Screen Start Depth (ft):	53	Screen End Depth (ft):	56
Static Water Level (ft):	3	Flowing:	N
Test Drawdown Depth (ft):	40	Test Hours:	2
Test Rate:	10	Test Method:	UNK
Well Grouted:	Y	Pump Capacity (gpm):	12
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

3
NNW
1/4 - 1/2 Mile
Higher

MI WELLS **MI6000000344704**

WELLS:

Well ID:	38000007715	Permit #:	1696
Owner:	THOMAS H. GORMLEY	Well Depth (ft):	57
Well Type:	Household	Other Type Info:	Not Reported

Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	07-OCT-88
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	54
Screen Start Depth (ft):	54	Screen End Depth (ft):	57
Static Water Level (ft):	20	Flowing:	N
Test Drawdown Depth (ft):	34	Test Hours:	1
Test Rate:	20	Test Method:	UNK
Well Grouted:	Y	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

A4
East
1/4 - 1/2 Mile
Higher

MI WELLS **MI6000000876205**

WELLS:

Well ID:	81000007674	Permit #:	Not Reported
Owner:	DAINAVA YOUTH CAMP	Well Depth (ft):	34
Well Type:	Type II Public	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	2059581	Well #:	001
Driller ID:	38-0167	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	17-MAY-77
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	4	Case Depth (ft):	30.5
Screen Start Depth (ft):	30.5	Screen End Depth (ft):	34
Static Water Level (ft):	6	Flowing:	N
Test Drawdown Depth (ft):	6	Test Hours:	1
Test Rate:	40	Test Method:	UNK
Well Grouted:	U	Pump Capacity (gpm):	0
Elevation (ft):	970	Specific Capacity:	0
Rock Top (ft):	0		

A5
East
1/2 - 1 Mile
Higher

MI WELLS **MI6000000883040**

WELLS:

Well ID:	81000015643	Permit #:	04 00941
Owner:	CAMP DAINAVA	Well Depth (ft):	138
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-2014	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	28-OCT-04
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	132
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	26	Flowing:	N
Test Drawdown Depth (ft):	26	Test Hours:	2
Test Rate:	15	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	958	Specific Capacity:	0

Rock Top (ft): 128

6
NE
1/2 - 1 Mile
Higher

MI WELLS **MI6000000891028**

WELLS:

Well ID:	81000025595	Permit #:	MC-16-89
Owner:	D Trolz-Baker Bldrs	Well Depth (ft):	57
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	19-AUG-89
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	0	Case Depth (ft):	0
Screen Start Depth (ft):	54	Screen End Depth (ft):	57
Static Water Level (ft):	22	Flowing:	U
Test Drawdown Depth (ft):	0	Test Hours:	0
Test Rate:	0	Test Method:	UNK
Well Grouted:	U	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

7
NW
1/2 - 1 Mile
Higher

MI WELLS **MI6000000344705**

WELLS:

Well ID:	38000007716	Permit #:	1220
Owner:	MAXINE FREY	Well Depth (ft):	59
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	09-FEB-88
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	56
Screen Start Depth (ft):	56	Screen End Depth (ft):	59
Static Water Level (ft):	30	Flowing:	N
Test Drawdown Depth (ft):	51	Test Hours:	1
Test Rate:	10	Test Method:	UNK
Well Grouted:	Y	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

8
NE
1/2 - 1 Mile
Higher

MI WELLS **MI6000000884467**

WELLS:

Well ID:	81000017685	Permit #:	WEL2006-00768
Owner:	STEELE CONST/RASPBURY, SCOTT		

Well Depth (ft):	129	Well Type:	Household
Other Type Info:	Not Reported	Well Status:	Active
Other Status Info:	Not Reported	Water Supply Serial #:	0
Well #:	Not Reported	Driller ID:	81-2215
Drill Method:	ROTARY	Other Method Info:	Not Reported
Construction Date:	11-APR-07	Case Type:	PVC Plastic
Other Casing Info:	Not Reported	Case Diameter (in):	5
Case Depth (ft):	119	Screen Start Depth (ft):	119
Screen End Depth (ft):	129	Static Water Level (ft):	50
Flowing:	N	Test Drawdown Depth (ft):	0
Test Hours:	4	Test Rate:	20
Test Method:	AIR	Well Grouted:	Y
Pump Capacity (gpm):	12	Elevation (ft):	0
Specific Capacity:	0	Rock Top (ft):	0

B9
NNW
1/2 - 1 Mile
Higher

MI WELLS **MI6000000352478**

WELLS:

Well ID:	38000017764	Permit #:	1387
Owner:	BRIAN WALDRON	Well Depth (ft):	121
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	16-DEC-96
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	96
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	23	Flowing:	N
Test Drawdown Depth (ft):	24	Test Hours:	1
Test Rate:	20	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	18
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	90		

B10
NNW
1/2 - 1 Mile
Higher

MI WELLS **MI6000000352482**

WELLS:

Well ID:	38000017768	Permit #:	2410
Owner:	MARILYN SAMONEK	Well Depth (ft):	107
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	26-MAR-90
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	77
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	20	Flowing:	N
Test Drawdown Depth (ft):	21	Test Hours:	1
Test Rate:	20	Test Method:	UNK
Well Grouted:	Y	Pump Capacity (gpm):	10

Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	70		

C11
NW
1/2 - 1 Mile
Higher

MI WELLS **MI6000000347510**

WELLS:

Well ID:	38000012203	Permit #:	16545
Owner:	JERRY CLARK	Well Depth (ft):	90
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	46-1272	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	30-DEC-11
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	74
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	24	Flowing:	N
Test Drawdown Depth (ft):	30	Test Hours:	2
Test Rate:	12	Test Method:	TSTPUM
Well Grouted:	Y	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	.4
Rock Top (ft):	74		

C12
NW
1/2 - 1 Mile
Higher

MI WELLS **MI6000000350661**

WELLS:

Well ID:	38000015929	Permit #:	Not Reported
Owner:	ELI FILLYAW	Well Depth (ft):	90
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0617	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	17-MAR-76
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	4	Case Depth (ft):	90
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	27	Flowing:	U
Test Drawdown Depth (ft):	35	Test Hours:	2
Test Rate:	30	Test Method:	UNK
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	66		

13
ENE
1/2 - 1 Mile
Higher

MI WELLS **MI6000000876198**

WELLS:

Well ID:	81000007667	Permit #:	Not Reported

Owner:	JUZENAS, STANLEY	Well Depth (ft):	88
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-1517	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	07-JUN-74
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	4	Case Depth (ft):	85
Screen Start Depth (ft):	84	Screen End Depth (ft):	88
Static Water Level (ft):	9	Flowing:	N
Test Drawdown Depth (ft):	20	Test Hours:	4
Test Rate:	40	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	0
Elevation (ft):	955	Specific Capacity:	0
Rock Top (ft):	0		

14
ENE
1/2 - 1 Mile
Higher

MI WELLS **MI6000000881933**

WELLS:

Well ID:	81000014244	Permit #:	WEL2003-00643
Owner:	DORIN SMITH	Well Depth (ft):	196
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	Not Reported	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	22-NOV-03
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	172
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	57	Flowing:	N
Test Drawdown Depth (ft):	60	Test Hours:	1
Test Rate:	20	Test Method:	TSTPUM
Well Grouted:	Y	Pump Capacity (gpm):	12
Elevation (ft):	0	Specific Capacity:	.33333333
Rock Top (ft):	169		

D15
East
1/2 - 1 Mile
Higher

MI WELLS **MI6000000885031**

WELLS:

Well ID:	81000018398	Permit #:	2007-00446
Owner:	Raul Abrigo	Well Depth (ft):	150
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	23-2347	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	17-JUN-08
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	140
Screen Start Depth (ft):	140	Screen End Depth (ft):	150
Static Water Level (ft):	50	Flowing:	N
Test Drawdown Depth (ft):	57	Test Hours:	.5
Test Rate:	40	Test Method:	AIR

Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

E16
NNW **MI WELLS** **MI6000000352484**
1/2 - 1 Mile
Higher

WELLS:

Well ID:	38000017770	Permit #:	5949
Owner:	STANLEY PARR	Well Depth (ft):	54
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-1517	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	28-AUG-79
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	50
Screen Start Depth (ft):	50	Screen End Depth (ft):	54
Static Water Level (ft):	17	Flowing:	N
Test Drawdown Depth (ft):	22	Test Hours:	4
Test Rate:	20	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

17
NNE **MI WELLS** **MI6000000891021**
1/2 - 1 Mile
Lower

WELLS:

Well ID:	81000025588	Permit #:	9801085
Owner:	David Bunn Jr	Well Depth (ft):	99
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-0524	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	05-AUG-98
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	0	Case Depth (ft):	0
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	6	Flowing:	U
Test Drawdown Depth (ft):	0	Test Hours:	0
Test Rate:	0	Test Method:	UNK
Well Grouted:	U	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	68		

18
East **MI WELLS** **MI6000000882083**
1/2 - 1 Mile
Higher

WELLS:

Well ID:	81000014414	Permit #:	WEL2003-00916
Owner:	J. PROCTOR CO.	Well Depth (ft):	111
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	27-FEB-04
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	107
Screen Start Depth (ft):	107	Screen End Depth (ft):	111
Static Water Level (ft):	44	Flowing:	N
Test Drawdown Depth (ft):	54	Test Hours:	2
Test Rate:	30	Test Method:	TSTPUM
Well Grouted:	Y	Pump Capacity (gpm):	20
Elevation (ft):	0	Specific Capacity:	.55555556
Rock Top (ft):	0		

D19
East
1/2 - 1 Mile
Higher

MI WELLS **MI6000000882015**

WELLS:

Well ID:	81000014337	Permit #:	03-00-224
Owner:	GEORGE AND SARAH WILBURE	Well Depth (ft):	178
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-2014	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	09-JAN-04
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	162
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	81	Flowing:	N
Test Drawdown Depth (ft):	81	Test Hours:	2
Test Rate:	6	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	18
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	159		

20
NNW
1/2 - 1 Mile
Higher

MI WELLS **MI6000000341180**

WELLS:

Well ID:	38000003101	Permit #:	Not Reported
Owner:	RYCKREAN, MARK	Well Depth (ft):	120
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Not Reported	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	23-1077	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	31-OCT-95
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	82
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	10	Flowing:	N
Test Drawdown Depth (ft):	120	Test Hours:	1

Test Rate:	40	Test Method:	UNK
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	950	Specific Capacity:	0
Rock Top (ft):	75		

E21
NNW
1/2 - 1 Mile
Higher

MI WELLS **MI6000000352479**

WELLS:

Well ID:	38000017765	Permit #:	4889
Owner:	ENOCH FELLENBERGER	Well Depth (ft):	106
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	08-OCT-93
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	71
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	16	Flowing:	N
Test Drawdown Depth (ft):	30	Test Hours:	1
Test Rate:	20	Test Method:	UNK
Well Grouted:	Y	Pump Capacity (gpm):	12
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	66		

F22
NW
1/2 - 1 Mile
Higher

MI WELLS **MI6000000352480**

WELLS:

Well ID:	38000017766	Permit #:	3769
Owner:	JOHN KEMNER	Well Depth (ft):	106
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	04-AUG-92
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	76
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	28	Flowing:	N
Test Drawdown Depth (ft):	29	Test Hours:	1
Test Rate:	20	Test Method:	UNK
Well Grouted:	Y	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	59		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

23
NW
1/2 - 1 Mile
Higher

MI WELLS **MI6000000350752**

WELLS:

Well ID:	38000016023	Permit #:	Not Reported
Owner:	CHARLES FREY	Well Depth (ft):	105
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	03-MAR-67
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	4	Case Depth (ft):	94
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	29	Flowing:	U
Test Drawdown Depth (ft):	30	Test Hours:	2
Test Rate:	30	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	15
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

G24
NE
1/2 - 1 Mile
Higher

MI WELLS **MI6000000876200**

WELLS:

Well ID:	81000007669	Permit #:	Not Reported
Owner:	ORIGAITIS, AL	Well Depth (ft):	99
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-1517	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	19-JUN-75
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	4	Case Depth (ft):	96
Screen Start Depth (ft):	96	Screen End Depth (ft):	99
Static Water Level (ft):	42	Flowing:	N
Test Drawdown Depth (ft):	33	Test Hours:	4
Test Rate:	10	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	0
Elevation (ft):	940	Specific Capacity:	0
Rock Top (ft):	0		

25
ENE
1/2 - 1 Mile
Higher

MI WELLS **MI6000000881359**

WELLS:

Well ID:	81000013451	Permit #:	WEL2003-00018
Owner:	ALANA WEST	Well Depth (ft):	117
Well Type:	Household	Other Type Info:	Not Reported

Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	83-2197	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	27-MAY-03
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	113
Screen Start Depth (ft):	113	Screen End Depth (ft):	117
Static Water Level (ft):	30	Flowing:	N
Test Drawdown Depth (ft):	60	Test Hours:	2
Test Rate:	25	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	8
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

F26
NW
1/2 - 1 Mile
Higher

MI WELLS **MI6000000341179**

WELLS:

Well ID:	38000003100	Permit #:	Not Reported
Owner:	HELFRICH, MICHAEL	Well Depth (ft):	106
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	17-JUN-94
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	71
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	21	Flowing:	N
Test Drawdown Depth (ft):	22	Test Hours:	1
Test Rate:	20	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	959	Specific Capacity:	0
Rock Top (ft):	66		

G27
NE
1/2 - 1 Mile
Higher

MI WELLS **MI6000000891030**

WELLS:

Well ID:	81000025597	Permit #:	95-02149
Owner:	National Navel Guard Lithuania		
Well Depth (ft):	98	Well Type:	Type I Public
Other Type Info:	Not Reported	Well Status:	Active
Other Status Info:	Not Reported	Water Supply Serial #:	0
Well #:	Not Reported	Driller ID:	Not Reported
Drill Method:	ROTARY	Other Method Info:	Not Reported
Construction Date:	15-MAY-95	Case Type:	Unknown
Other Casing Info:	Not Reported	Case Diameter (in):	0
Case Depth (ft):	0	Screen Start Depth (ft):	95
Screen End Depth (ft):	98	Static Water Level (ft):	0
Flowing:	Y	Test Drawdown Depth (ft):	0
Test Hours:	0	Test Rate:	0
Test Method:	UNK	Well Grouted:	U
Pump Capacity (gpm):	0	Elevation (ft):	0

Specific Capacity:	0	Rock Top (ft):	0

28
ENE
1/2 - 1 Mile
Higher

MI WELLS **MI6000000889486**

WELLS:

Well ID:	81000023944	Permit #:	WEL2021-00047
Owner:	VANESSA YOUNG	Well Depth (ft):	121
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-2014	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	25-MAR-21
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5.68	Case Depth (ft):	111
Screen Start Depth (ft):	111	Screen End Depth (ft):	121
Static Water Level (ft):	35	Flowing:	N
Test Drawdown Depth (ft):	45	Test Hours:	2
Test Rate:	12	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	22
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

H29
NW
1/2 - 1 Mile
Higher

MI WELLS **MI6000000352483**

WELLS:

Well ID:	38000017769	Permit #:	Not Reported
Owner:	WALTER SAMONEK	Well Depth (ft):	52
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	58-0551	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	11-MAY-73
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	4	Case Depth (ft):	47
Screen Start Depth (ft):	48	Screen End Depth (ft):	52
Static Water Level (ft):	20	Flowing:	N
Test Drawdown Depth (ft):	0	Test Hours:	0
Test Rate:	0	Test Method:	UNK
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

I30
East
1/2 - 1 Mile
Higher

MI WELLS **MI6000000880690**

WELLS:

Well ID:	81000012712	Permit #:	Wel2002-00570
Owner:	Noah Spengler	Well Depth (ft):	111

Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	78-1607	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	26-NOV-02
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	101
Screen Start Depth (ft):	101	Screen End Depth (ft):	111
Static Water Level (ft):	40	Flowing:	N
Test Drawdown Depth (ft):	111	Test Hours:	1
Test Rate:	20	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

J31
East
1/2 - 1 Mile
Higher

MI WELLS **MI6000000880596**

WELLS:

Well ID:	81000012612	Permit #:	200200331'
Owner:	DEBBIE BAILEY	Well Depth (ft):	97
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	31-JUL-02
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	93
Screen Start Depth (ft):	93	Screen End Depth (ft):	97
Static Water Level (ft):	61	Flowing:	N
Test Drawdown Depth (ft):	61	Test Hours:	1
Test Rate:	20	Test Method:	TSTPUM
Well Grouted:	Y	Pump Capacity (gpm):	20
Elevation (ft):	0	Specific Capacity:	.32786885
Rock Top (ft):	0		

J32
East
1/2 - 1 Mile
Higher

MI WELLS **MI6000000881606**

WELLS:

Well ID:	81000013821	Permit #:	WEL2003-00353
Owner:	JIM ORNALIK	Well Depth (ft):	89
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	27-AUG-03
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	85
Screen Start Depth (ft):	85	Screen End Depth (ft):	89
Static Water Level (ft):	63	Flowing:	N
Test Drawdown Depth (ft):	65	Test Hours:	1
Test Rate:	20	Test Method:	TSTPUM
Well Grouted:	Y	Pump Capacity (gpm):	20

Elevation (ft):	0	Specific Capacity:	.30769231
Rock Top (ft):	0		

I33
East
1/2 - 1 Mile
Higher

MI WELLS **MI6000000880716**

WELLS:

Well ID:	81000012740	Permit #:	0200526
Owner:	WAYNE TROLZ	Well Depth (ft):	131
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-2014	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	17-OCT-02
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	121
Screen Start Depth (ft):	121	Screen End Depth (ft):	131
Static Water Level (ft):	49	Flowing:	N
Test Drawdown Depth (ft):	49	Test Hours:	2
Test Rate:	6	Test Method:	UNK
Well Grouted:	Y	Pump Capacity (gpm):	12
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

34
NNW
1/2 - 1 Mile
Higher

MI WELLS **MI6000000341805**

WELLS:

Well ID:	38000004017	Permit #:	8855
Owner:	RON FREY	Well Depth (ft):	122
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	13-1593	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	24-AUG-00
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	84
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	16	Flowing:	N
Test Drawdown Depth (ft):	40	Test Hours:	1
Test Rate:	30	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	68		

35
East
1/2 - 1 Mile
Higher

MI WELLS **MI6000000889603**

WELLS:

Well ID:	81000024081	Permit #:	wel2020-00337

Owner:	Mayberry Homes	Well Depth (ft):	108
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	19-2330	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	11-JUN-21
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	105
Screen Start Depth (ft):	103	Screen End Depth (ft):	108
Static Water Level (ft):	75	Flowing:	N
Test Drawdown Depth (ft):	90	Test Hours:	2
Test Rate:	20	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

I36
East
1/2 - 1 Mile
Higher

MI WELLS **MI6000000882583**

WELLS:

Well ID:	81000015134	Permit #:	2004-00738
Owner:	Allen Hicken	Well Depth (ft):	105
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	23-2033	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	26-OCT-04
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	95
Screen Start Depth (ft):	95	Screen End Depth (ft):	105
Static Water Level (ft):	41	Flowing:	N
Test Drawdown Depth (ft):	0	Test Hours:	2
Test Rate:	50	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	10
Elevation (ft):	987	Specific Capacity:	0
Rock Top (ft):	0		

H37
WNW
1/2 - 1 Mile
Higher

MI WELLS **MI6000000347986**

WELLS:

Well ID:	38000012791	Permit #:	17159
Owner:	BRISTLE FARMS	Well Depth (ft):	153
Well Type:	Irrigation	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-2014	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	15-MAY-14
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	10	Case Depth (ft):	81
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	26.4	Flowing:	N
Test Drawdown Depth (ft):	27.7	Test Hours:	2
Test Rate:	520	Test Method:	AIR

Well Grouted:	Y	Pump Capacity (gpm):	475
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	71		

38
ENE
1/2 - 1 Mile
Higher

MI WELLS **MI6000000891036**

WELLS:

Well ID:	81000025603	Permit #:	94-01703
Owner:	Henry DeSautel	Well Depth (ft):	55
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	21-JUN-94
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	0	Case Depth (ft):	0
Screen Start Depth (ft):	52	Screen End Depth (ft):	55
Static Water Level (ft):	17	Flowing:	U
Test Drawdown Depth (ft):	0	Test Hours:	0
Test Rate:	0	Test Method:	UNK
Well Grouted:	U	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

39
North
1/2 - 1 Mile
Higher

MI WELLS **MI6000000341349**

WELLS:

Well ID:	38000003273	Permit #:	8440
Owner:	Doug Wilson	Well Depth (ft):	117
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Not Reported	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	23-2033	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	14-JUN-00
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	93
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	14	Flowing:	N
Test Drawdown Depth (ft):	117	Test Hours:	3
Test Rate:	100	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	73		

40
NNE
1/2 - 1 Mile
Higher

MI WELLS **MI6000000876201**

WELLS:

Well ID:	81000007670	Permit #:	Not Reported
Owner:	GARLIAUSKAS, STANLEY	Well Depth (ft):	57
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-1517	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	16-APR-79
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	53
Screen Start Depth (ft):	53	Screen End Depth (ft):	57
Static Water Level (ft):	10	Flowing:	N
Test Drawdown Depth (ft):	21	Test Hours:	4
Test Rate:	20	Test Method:	UNK
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	920	Specific Capacity:	0
Rock Top (ft):	0		

K41
ENE
1/2 - 1 Mile
Higher

MI WELLS **MI6000000891034**

WELLS:

Well ID:	81000025601	Permit #:	HMC 3089 WN
Owner:	Bill Caynon	Well Depth (ft):	114
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	46-0551	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	12-JUN-90
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	0	Case Depth (ft):	0
Screen Start Depth (ft):	108	Screen End Depth (ft):	114
Static Water Level (ft):	56	Flowing:	U
Test Drawdown Depth (ft):	0	Test Hours:	0
Test Rate:	0	Test Method:	UNK
Well Grouted:	U	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

42
NNE
1/2 - 1 Mile
Lower

MI WELLS **MI6000000879302**

WELLS:

Well ID:	81000011207	Permit #:	01 03 611
Owner:	Eric Vander Schalze	Well Depth (ft):	118
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-2014	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	27-NOV-01
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	82
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	2	Flowing:	Y
Test Drawdown Depth (ft):	2	Test Hours:	2

Test Rate:	12	Test Method:	UNK
Well Grouted:	Y	Pump Capacity (gpm):	12
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	76		

K43
ENE **MI WELLS** **MI6000000891029**
1/2 - 1 Mile
Higher

WELLS:

Well ID:	81000025596	Permit #:	90-00907
Owner:	Baker Blders (Makielski)	Well Depth (ft):	167
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	27-JUL-90
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	0	Case Depth (ft):	0
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	35	Flowing:	U
Test Drawdown Depth (ft):	0	Test Hours:	0
Test Rate:	0	Test Method:	UNK
Well Grouted:	U	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	139		

44
ENE **MI WELLS** **MI6000000891027**
1/2 - 1 Mile
Higher

WELLS:

Well ID:	81000025594	Permit #:	MC24-89
Owner:	Baker Builders-Squires	Well Depth (ft):	61
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	30-OCT-89
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	0	Case Depth (ft):	0
Screen Start Depth (ft):	58	Screen End Depth (ft):	61
Static Water Level (ft):	27	Flowing:	U
Test Drawdown Depth (ft):	0	Test Hours:	0
Test Rate:	0	Test Method:	UNK
Well Grouted:	U	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

L45
ESE
1/2 - 1 Mile
Higher

MI WELLS **MI6000000876203**

WELLS:

Well ID:	81000007672	Permit #:	Not Reported
Owner:	SPENCER, BERLIN	Well Depth (ft):	195
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	01-JAN-70
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	4	Case Depth (ft):	188
Screen Start Depth (ft):	191	Screen End Depth (ft):	195
Static Water Level (ft):	55	Flowing:	N
Test Drawdown Depth (ft):	135	Test Hours:	8
Test Rate:	7	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	0
Elevation (ft):	1012	Specific Capacity:	0
Rock Top (ft):	195		

L46
ESE
1/2 - 1 Mile
Higher

FED USGS **USGS40000481489**

Organization ID:	USGS-MI	Organization Name:	USGS Michigan Water Science Center
Monitor Location:	04S03E07DBBD01	Type:	Well
Description:	Not Reported	HUC:	04100002
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Sand and gravel aquifers (glaciated regions)		
Formation Type:	Pleistocene Series	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	195
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

47
NE
1/2 - 1 Mile
Higher

MI WELLS **MI6000000891031**

WELLS:

Well ID:	81000025598	Permit #:	96-03216
Owner:	Allan Carson	Well Depth (ft):	128
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	46-2039	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	09-JUL-96
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	0	Case Depth (ft):	0
Screen Start Depth (ft):	0	Screen End Depth (ft):	0

Static Water Level (ft):	25	Flowing:	U
Test Drawdown Depth (ft):	0	Test Hours:	0
Test Rate:	0	Test Method:	UNK
Well Grouted:	U	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	114		

48
East
1/2 - 1 Mile
Higher

MI WELLS **MI6000000891035**

WELLS:

Well ID:	81000025602	Permit #:	Not Reported
Owner:	Lewis Litwin	Well Depth (ft):	265
Well Type:	Irrigation	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0106	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	29-APR-92
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	0	Case Depth (ft):	0
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	49	Flowing:	U
Test Drawdown Depth (ft):	0	Test Hours:	0
Test Rate:	0	Test Method:	UNK
Well Grouted:	U	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	150		

M49
SSE
1/2 - 1 Mile
Higher

MI WELLS **MI6000000886274**

WELLS:

Well ID:	81000019861	Permit #:	2012 00628
Owner:	TROLZ GLYNN ASSOC INC	Well Depth (ft):	208
Well Type:	Irrigation	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-2014	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	11-JAN-13
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5.68	Case Depth (ft):	193
Screen Start Depth (ft):	193	Screen End Depth (ft):	208
Static Water Level (ft):	100	Flowing:	N
Test Drawdown Depth (ft):	208	Test Hours:	2
Test Rate:	80	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	25
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

M50
SSE
1/2 - 1 Mile
Higher

MI WELLS **MI6000000886275**

WELLS:

Well ID:	81000019862	Permit #:	2012 00627
Owner:	TROLZ GLYNN ASSOC INC	Well Depth (ft):	204
Well Type:	Irrigation	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-2014	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	11-JAN-13
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5.68	Case Depth (ft):	189
Screen Start Depth (ft):	189	Screen End Depth (ft):	204
Static Water Level (ft):	100	Flowing:	N
Test Drawdown Depth (ft):	204	Test Hours:	2
Test Rate:	80	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	25
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

51
SE
1/2 - 1 Mile
Higher

MI WELLS **MI6000000899715**

WELLS:

Well ID:	81000034310	Permit #:	WELL2022-0002
Owner:	BRADLEY AND SARAH HOWE	Well Depth (ft):	130
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-2014	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	07-JUL-22
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5.68	Case Depth (ft):	120
Screen Start Depth (ft):	120	Screen End Depth (ft):	130
Static Water Level (ft):	96	Flowing:	N
Test Drawdown Depth (ft):	115	Test Hours:	1
Test Rate:	25	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	18
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

N52
WNW
1/2 - 1 Mile
Higher

MI WELLS **MI6000000344712**

WELLS:

Well ID:	38000007723	Permit #:	7371
Owner:	BRIAN PLATTE	Well Depth (ft):	100
Well Type:	Household	Other Type Info:	Not Reported

Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	25-MAR-80
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	4	Case Depth (ft):	89
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	20	Flowing:	N
Test Drawdown Depth (ft):	23	Test Hours:	1
Test Rate:	30	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	12
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	75		

N53
WNW
1/2 - 1 Mile
Higher

MI WELLS **MI6000000344713**

WELLS:

Well ID:	38000007724	Permit #:	W-3962
Owner:	JAYMIE & ANN SCHROT	Well Depth (ft):	98
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-0524	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	07-NOV-97
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	80
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	21	Flowing:	N
Test Drawdown Depth (ft):	21	Test Hours:	2
Test Rate:	12	Test Method:	UNK
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	76		

54
SW
1/2 - 1 Mile
Higher

MI WELLS **MI6000000344708**

WELLS:

Well ID:	38000007719	Permit #:	5012
Owner:	ROBERT ARNOLD	Well Depth (ft):	121
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	21-DEC-93
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	101
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	17	Flowing:	N
Test Drawdown Depth (ft):	18	Test Hours:	1
Test Rate:	20	Test Method:	UNK
Well Grouted:	Y	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	0

Rock Top (ft): 96

55
SW
1/2 - 1 Mile
Higher

MI WELLS **MI6000000348809**

WELLS:

Well ID:	38000013767	Permit #:	18827
Owner:	Bill Hubbell	Well Depth (ft):	32
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-2487	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	11-JUL-17
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	28
Screen Start Depth (ft):	28	Screen End Depth (ft):	32
Static Water Level (ft):	21	Flowing:	N
Test Drawdown Depth (ft):	21	Test Hours:	2
Test Rate:	15	Test Method:	TSTPUM
Well Grouted:	Y	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	.71428571
Rock Top (ft):	0		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

1
ENE
1/2 - 1 Mile

OIL_GAS **MIOG13000093853**

OIL_GAS:

API #:	21161612337000	Well #:	1
Permit #:	NP22020	Completion Date:	0
Plug Date:	Not Reported	Well Type:	Part 625 Test Well
Well Status:	Active	Bore Type:	Mineral (Non-Confidential)
Slant:	V	Total Depth Drilled (ft):	265
True Vertical Depth (ft):	0	Kickoff Point of TVD:	0
Deepest Formation:	BEDFORD SHALE	Formation Tops:	Not Reported
Field Name:	Not Reported	Production Formation:	Not Reported
Production Unit #:	Not Reported	Lease Name:	Litwin
Operator #:	7104	Company Name:	Litwin, Lewis
Surface Owner:	Not Reported	State Owned Land:	0
Federally Owned Land:	0	H2S Concentration:	0
Permit Date:	Not Reported		

2
SSW
1/2 - 1 Mile

OIL_GAS **MIOG13000038974**

OIL_GAS:

API #:	21075606270000	Well #:	1-13
Permit #:	60627	Completion Date:	0
Plug Date:	Not Reported	Well Type:	Location
Well Status:	Terminated Permit	Bore Type:	Oil and Gas Test
Slant:	D	Total Depth Drilled (ft):	0
True Vertical Depth (ft):	0	Kickoff Point of TVD:	0
Deepest Formation:	Not Reported	Formation Tops:	Not Reported
Field Name:	Not Reported	Production Formation:	Not Reported
Production Unit #:	Not Reported	Lease Name:	Trolz
Operator #:	6513	Company Name:	Zackson Resources Inc
Surface Owner:	GLYNN TROLZ & ASSOCIATES, INC.		
State Owned Land:	0	Federally Owned Land:	0
H2S Concentration:	0	Permit Date:	03-OCT-12

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: MI Radon

Radon Test Results

Zipcode	Test Date	LT Sign	Result
49230	2/18/1999		1.5
49230	4/10/2006		1.6
49230	10/23/2006		1.5
49230	6/27/2005		1.5
49230	1/8/2005		1.4
49230	11/4/1996		4.4
49230	3/23/1995		4.2
49230	11/13/2003		4.0
49230	10/28/1995		4.1
49230	3/29/2006		4.0
49230	11/13/2007		4.0
49230	2/23/2009		4.0
49230	3/18/2003		4.1
49230	2/7/2004		4.1
49230	5/9/1997		4.3
49230	2/6/2006		4.2
49230	6/7/2008		4.2
49230	11/29/2008		7.7
49230	2/17/2004		7.2
49230	4/21/1999		6.9
49230	12/10/2007		6.6
49230	4/8/1994		7.6
49230	5/2/1994		6.8
49230	3/7/2006		6.4
49230	2/10/2009		6.3
49230	1/30/2009		6.3
49230	3/26/2001		6.2
49230	4/8/1995		5.6
49230	9/15/2009		5.2
49230	4/28/1995		4.9
49230	5/9/1995		4.8
49230	12/26/1995		4.7
49230	4/20/2001		5.9
49230	3/10/2009		5.5
49230	4/4/1994		5.1
49230	1/6/2003		4.7
49230	2/3/1998		4.6
49230	5/3/1995		5.0
49230	11/22/2008		5.0
49230	4/22/2000		4.7
49230	5/11/2009		5.3
49230	8/4/2003		5.2
49230	1/26/2009		8.0
49230	4/25/2003		7.8
49230	6/3/2002		7.8
49230	11/29/2008		7.8
49230			

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

	2/10/2009		7.0
49230	1/15/2007		95.1
49230	12/2/2004		18.1
49230	5/9/2002		17.7
49230	3/20/1997		17.6
49230	2/5/2002		2.0
49230	4/20/1995		42.5
49230	8/28/1996		22.5
49230	3/27/2000		17.0
49230	5/6/2002		16.1
49230	2/13/2006		15.8
49230	2/27/2006		13.5
49230	7/2/2001		12.8
49230	4/4/2001		12.5
49230	12/18/2009		10.1
49230	11/17/2009		12.1
49230	6/3/2002		9.9
49230	4/25/1995		8.8
49230	7/3/1998		10.4
49230	3/16/1998		9.6
49230	3/9/1998		10.3
49230	10/26/1995		10.2
49230	5/9/1997		9.5
49230	2/7/2003		9.4
49230	3/20/2004		2.1
49230	6/3/2002		9.3
49230	4/8/1994		8.2
49230	3/20/1997		8.1
49230	4/18/2002		8.1
49230	4/12/1994		9.2
49230	11/25/1995		9.1
49230	7/6/1998		8.2
49230	2/4/2006		9.1
49230	5/6/2002		21.3
49230	5/6/2002		20.1
49230	12/17/2007		19.8
49230	10/26/2004		26.9
49230	2/2/2009		25.9
49230	2/2/2006		2.9
49230	11/3/2007		2.9
49230	3/11/2006		2.5
49230	10/27/2001		2.5
49230	3/3/2003		2.2
49230	1/27/2003		2.2
49230	3/1/1999		2.1
49230	11/7/2006		2.3
49230	4/14/2003		2.7
49230	3/19/2004		2.6
49230	3/3/2006		2.8
49230	2/1/1995		2.7
49230	11/8/1999		2.6
49230	2/26/1994		2.6
49230	9/14/2009		2.7
49230	2/9/2006		3.6
49230	4/19/1995		3.6
49230	4/21/1995	<	0.3
49230			

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

	7/31/2009		3.5
49230	5/7/2004		3.4
49230	4/11/2006		3.4
49230	11/13/2000	<	0.3
49230	3/6/2003		3.2
49230	1/13/2004		3.1
49230	1/29/2004		3.2
49230	5/24/2006		3.2
49230	6/10/2003		3.3
49230	4/21/2006		3.3
49230	3/2/2009		3.2
49230	11/12/2001		3.0
49230	3/1/2004		3.9
49230	2/5/2005		3.0
49230	2/3/2007		3.9
49230	1/26/2006		3.9
49230	1/14/2008		3.9
49230	4/14/2003		3.1
49230	2/20/1998		3.8
49230	3/29/1999		3.6
49230	11/6/2002		3.8
49230	3/3/2003		3.8
49230	3/3/2003		3.8
49230	4/6/1998		3.2
49230	1/21/1997		3.2
49230	11/3/2003		1.9
49230	10/24/2006		1.9
49230	4/20/2007		1.8
49230	2/16/1998		1.7
49230	5/7/2004		1.7
49230	2/16/2005		1.7
49230	9/13/2001	<	0.3
49230	11/1/1995		0.4
49230	2/13/2003	<	0.3
49230	3/17/1995		0.4
49230	9/10/2003	<	0.3
49230	9/6/2007	<	0.3
49230	2/28/2002	<	0.3
49230	9/8/2005	<	0.3
49230	6/27/1997	<	0.3
49230	4/4/2001		0.6
49230	5/4/2009		0.9
49230	3/27/2009		1.4
49230	6/27/1997		1.3
49230	5/12/1995		1.3
49230	2/8/2008		1.2
49230	3/17/2003		1.1
49230	12/5/2005		1.1
49230	11/1/2004		1.0
49230	2/20/1998		1.0
49230	2/16/2000		1.0
49230	4/4/1994		1.0
49230	10/23/2006		1.0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

Federal EPA Radon Zone for JACKSON County: 1

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 49230

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	Not Reported	Not Reported	Not Reported	Not Reported
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	4.550 pCi/L	50%	50%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Department of Natural Resources
Telephone: 517-241-2254

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Data
Source: Department of Environmental Quality
Telephone: 517-335-9218
The data in this file was obtained from Wellogic, the Michigan Department of Environmental Quality Statewide Groundwater Database (SGWD). Wellogic contains approximately 425,000 water well records found within the State of Michigan, and although it represents the best available data, it cannot be considered a complete database of all the wells or well records in existence. Locations of verified municipal and private water well sites compiled from Michigan Department of Public Health, Water Well and Pump Records. Available in the following MI counties: Calhoun, Eaton, Genesee, Ingham, Jackson, Kalamazoo, Kent, Midland, Muskegon, Oakland, Ottawaw, Saginaw, St. Clair, Washtenaw.

OTHER STATE DATABASE INFORMATION

Michigan Oil and Gas Wells
Source: Department of Environmental Quality
Telephone: 517-241-1528
Locations of oil and gas wells are compiled from permit records on file at the Geological Survey Division (GSD), Michigan Department of Natural Resources.

RADON

State Database: MI Radon
Source: Department of Environmental Quality
Telephone: 517-335-9551
Radon Test Results

Michigan Radon Test Results
Source: Department of Environmental Quality
Telephone: 517-335-8037
These results are from test kits distributed by the local health departments and used by Michigan residents. There is no way of knowing whether the devices were used properly, whether there are duplicates (or repeat verification) test (i.e., more than one sample per home), etc.

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

STREET AND ADDRESS INFORMATION

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14760 Hornung Road
14760 Hornung Road
Brooklyn, MI 49230

Inquiry Number: 7877200.2s
January 22, 2025

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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GEOCHECK ADDENDUM

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Physical Setting Source Records Searched	PSGR-1

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

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E1527 - 21), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E2247 - 16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E1528 - 22) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

14760 HORNUNG ROAD
BROOKLYN, MI 49230

COORDINATES

Latitude (North):	42.1215260 - 42° 7' 17.49''
Longitude (West):	84.1498060 - 84° 8' 59.30''
Universal Tranverse Mercator:	Zone 16
UTM X (Meters):	735613.1
UTM Y (Meters):	4666988.0
Elevation:	996 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	14450260 ONSTED, MI
Version Date:	2019
North Map:	14450254 NORVELL, MI
Version Date:	2019
Northeast Map:	14450238 MANCHESTER, MI
Version Date:	2019
Southeast Map:	14450292 TIPTON, MI
Version Date:	2019

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20200701
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
14760 HORNUNG ROAD
BROOKLYN, MI 49230

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

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

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

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

Lists of Federal Delisted NPL sites

Delisted NPL ---------- National Priority List Deletions

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS ---------- Corrective Action Report

Lists of Federal RCRA TSD facilities

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

Lists of Federal RCRA generators

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-VSQG ---------- RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System

US ENG CONTROLS---- Engineering Controls Sites List
US INST CONTROLS---- Institutional Controls Sites List

Federal ERNS list

ERNS---- Emergency Response Notification System

Lists of state- and tribal hazardous waste facilities

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

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF---- Solid Waste Facilities Database

Lists of state and tribal leaking storage tanks

LUST---- Leaking Underground Storage Tank Sites
INDIAN LUST---- Leaking Underground Storage Tanks on Indian Land

Lists of state and tribal registered storage tanks

FEMA UST---- Underground Storage Tank Listing
UST---- Underground Storage Tank Facility List
AST---- Aboveground Tanks
INDIAN UST---- Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

AUL---- Engineering and Institutional Controls

Lists of state and tribal voluntary cleanup sites

INDIAN VCP---- Voluntary Cleanup Priority Listing

Lists of state and tribal brownfield sites

BROWNFIELDS---- Brownfields and UST Site Database

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS---- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

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

EXECUTIVE SUMMARY

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL	Delisted National Clandestine Laboratory Register
INVENTORY	Inventory of Facilities
PART 201	Part 201 Site List
CDL	Clandestine Drug Lab Listing
DEL PART 201	Delisted List of Contaminated Sites
US CDL	National Clandestine Laboratory Register

Local Land Records

LIENS	Lien List
LIENS 2	CERCLA Lien Information

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
SPILLS	Pollution Emergency Alerting System

Other Ascertainable Records

RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated
FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
MINES MRDS	Mineral Resources Data System

EXECUTIVE SUMMARY

ABANDONED MINES	Abandoned Mines
FINDS	Facility Index System/Facility Registry System
DOCKET HWC	Hazardous Waste Compliance Docket Listing
ECHO	Enforcement & Compliance History Information
UXO	Unexploded Ordnance Sites
FUELS PROGRAM	EPA Fuels Program Registered Listing
PFAS NPL	Superfund Sites with PFAS Detections Information
PFAS FEDERAL SITES	Federal Sites PFAS Information
PFAS TRIS	List of PFAS Added to the TRI
PFAS TSCA	PFAS Manufacture and Imports Information
PFAS RCRA MANIFEST	PFAS Transfers Identified In the RCRA Database Listing
PFAS ATSDR	PFAS Contamination Site Location Listing
PFAS WQP	Ambient Environmental Sampling for PFAS
PFAS NPDES	Clean Water Act Discharge Monitoring Information
PFAS PROJECT	NORTHEASTERN UNIVERSITY PFAS PROJECT
PFAS ECHO	Facilities in Industries that May Be Handling PFAS Listing
PFAS ECHO FIRE TRAIN	Facilities in Industries that May Be Handling PFAS Listing
PFAS PT 139 AIRPORT	All Certified Part 139 Airports PFAS Information Listing
AQUEOUS FOAM NRC	Aqueous Foam Related Incidents Listing
BIOSOLIDS	ICIS-NPDES Biosolids Facility Data
UST FINDER	UST Finder Database
UST FINDER RELEASE	UST Finder Releases Database
E MANIFEST	Hazardous Waste Electronic Manifest System
PFAS	PFAS Contaminated Sites Listing
AQUEOUS FOAM	Aqueous Film Forma Foam Listing
AIRS	Permit and Emissions Inventory Data
ASBESTOS	ASBESTOS
BEA	Baseline Environmental Assessment Database
COAL ASH	Coal Ash Disposal Sites
DRYCLEANERS	Drycleaning Establishments
Financial Assurance	Financial Assurance Information Listing
LEAD	Lead Information Registry Listing
LEAD	Lead Information Registry Listing
MANIFEST	Hazardous Waste Manifest Data
NPDES	List of Active NPDES Permits
UIC	Underground Injection Wells Database
WDS	Waste Data System
ENVIRO	Michigan Enviro Information
SSCUP	State Owned Sites Cleanup Program List

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto	EDR Exclusive Historical Auto Stations
EDR Hist Cleaner	EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA PART 201	Recovered Government Archive State Hazardous Waste Facilities List

EXECUTIVE SUMMARY

RGA LF---------- Recovered Government Archive Solid Waste Facilities List
RGA LUST---------- Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were not identified.

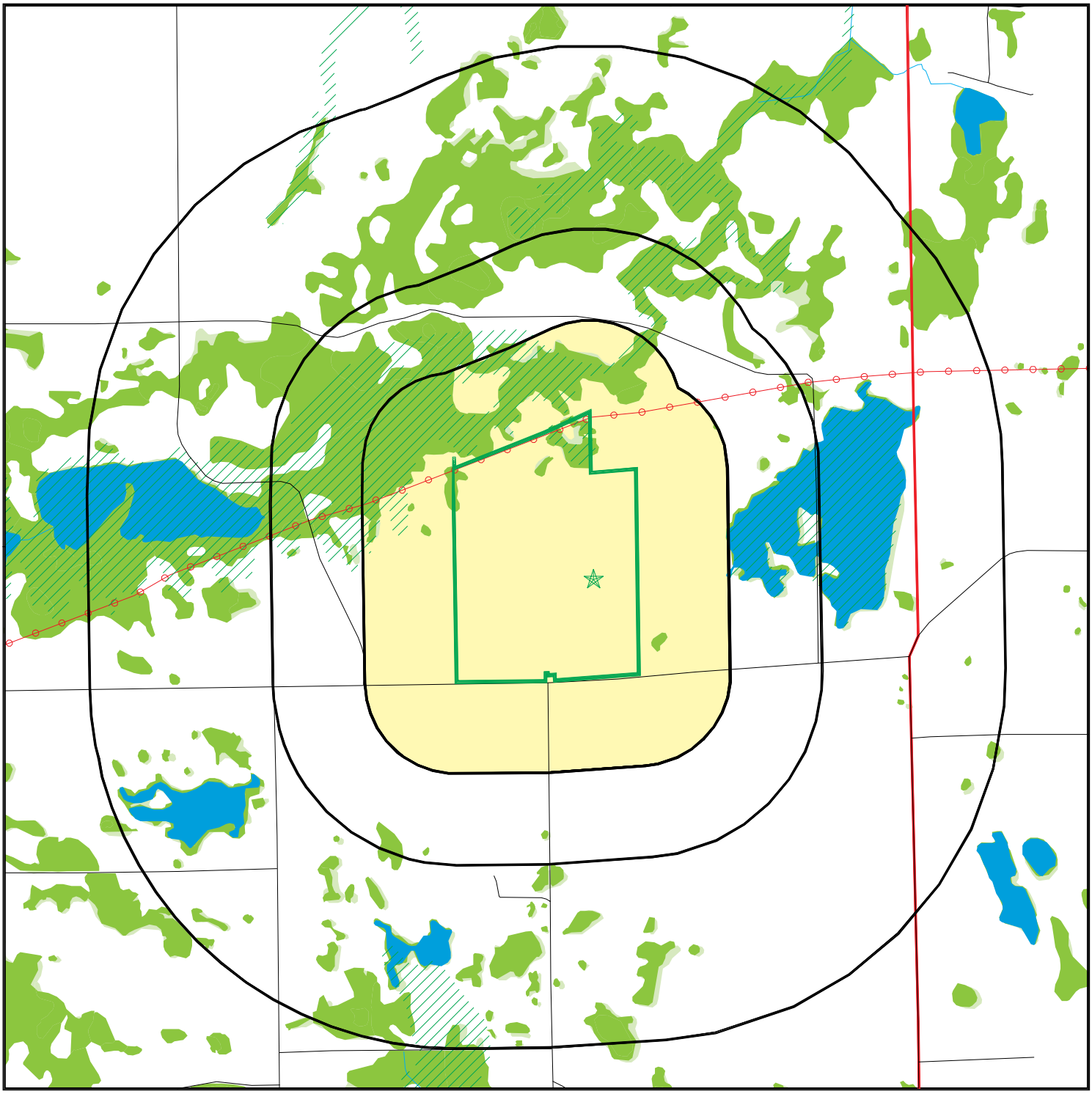
Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 1 records.

Site Name	Database(s)
GORMLEY BARTLETT LANDFILL	ODI

OVERVIEW MAP - 7877200.2S



Target Property
Sites at elevations higher than or equal to the target property
Sites at elevations lower than the target property
Manufactured Gas Plants
National Priority List Sites
Dept. Defense Sites

0 1/4 1/2 1 Miles

Indian Reservations BIA
County Boundary
Power transmission lines
Special Flood Hazard Area (1%)
0.2% Annual Chance Flood Hazard
National Wetland Inventory
State Wetlands

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

SITE NAME: 14760 Hornung Road ADDRESS: 14760 Hornung Road Brooklyn MI 49230 LAT/LONG: 42.121526 / 84.149806	CLIENT: Applied Science & Technology CONTACT: Bailey Bishop INQUIRY #: 7877200.2s DATE: January 22, 2025 3:23 pm

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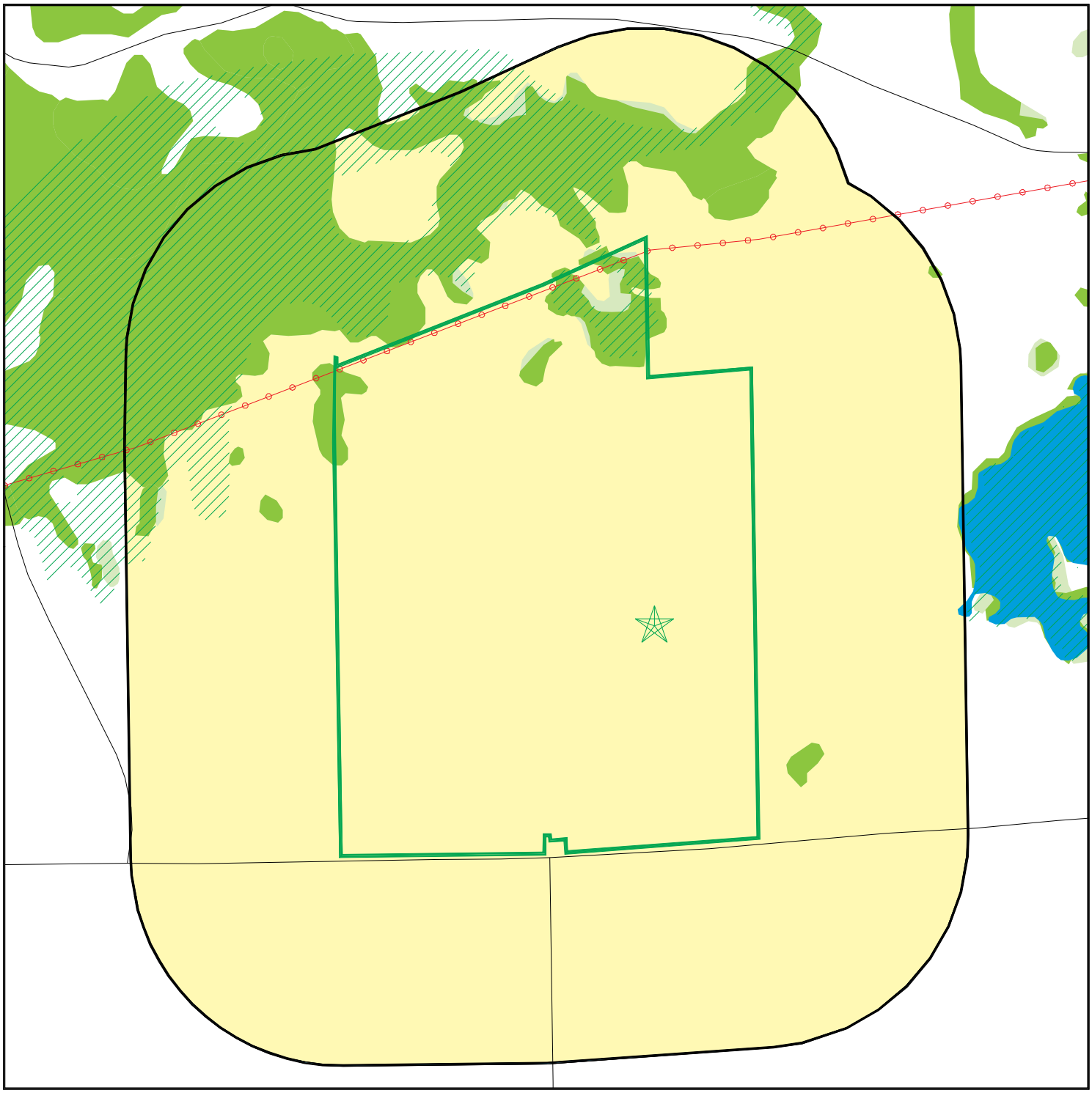
DETAIL MAP - 7877200.2S



Target Property
Sites at elevations higher than or equal to the target property
Sites at elevations lower than the target property
Manufactured Gas Plants
Sensitive Receptors
National Priority List Sites
Dept. Defense Sites

0 1/8 1/4 1/2 Miles

Indian Reservations BIA
Power transmission lines
Special Flood Hazard Area (1%)
0.2% Annual Chance Flood Hazard
National Wetland Inventory
State Wetlands

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

SITE NAME: 14760 Hornung Road ADDRESS: 14760 Hornung Road Brooklyn MI 49230 LAT/LONG: 42.121526 / 84.149806	CLIENT: Applied Science & Technology CONTACT: Bailey Bishop INQUIRY #: 7877200.2s DATE: January 22, 2025 3:26 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Lists of Federal NPL (Superfund) sites								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Lists of Federal Delisted NPL sites								
Delisted NPL	1.000		0	0	0	0	NR	0
Lists of Federal sites subject to CERCLA removals and CERCLA orders								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Lists of Federal CERCLA sites with NFRAP								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA facilities undergoing Corrective Action								
CORRACTS	1.000		0	0	0	0	NR	0
Lists of Federal RCRA TSD facilities								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA generators								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
Lists of state- and tribal hazardous waste facilities								
SHWS	1.000		0	0	0	0	NR	0
Lists of state and tribal landfills and solid waste disposal facilities								
SWF/LF	0.500		0	0	0	NR	NR	0
Lists of state and tribal leaking storage tanks								
LUST	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
Lists of state and tribal registered storage tanks								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
AUL	0.500		0	0	0	NR	NR	0
Lists of state and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
Lists of state and tribal brownfield sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
HIST LF	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
INVENTORY	0.500		0	0	0	NR	NR	0
PART 201	1.000		0	0	0	0	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
DEL PART 201	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
SPILLS	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
MINES MRDS	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
PFAS NPL	0.250		0	0	NR	NR	NR	0
PFAS FEDERAL SITES	0.250		0	0	NR	NR	NR	0
PFAS TRIS	0.250		0	0	NR	NR	NR	0
PFAS TSCA	0.250		0	0	NR	NR	NR	0
PFAS RCRA MANIFEST	0.250		0	0	NR	NR	NR	0
PFAS ATSDR	0.250		0	0	NR	NR	NR	0
PFAS WQP	0.250		0	0	NR	NR	NR	0
PFAS NPDES	0.250		0	0	NR	NR	NR	0
PFAS PROJECT	0.250		0	0	NR	NR	NR	0
PFAS ECHO	0.250		0	0	NR	NR	NR	0
PFAS ECHO FIRE TRAIN	0.250		0	0	NR	NR	NR	0
PFAS PT 139 AIRPORT	0.250		0	0	NR	NR	NR	0
AQUEOUS FOAM NRC	0.250		0	0	NR	NR	NR	0
BIOSOLIDS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST FINDER	0.250		0	0	NR	NR	NR	0
UST FINDER RELEASE	0.500		0	0	0	NR	NR	0
E MANIFEST	0.250		0	0	NR	NR	NR	0
PFAS	0.250		0	0	NR	NR	NR	0
AQUEOUS FOAM	0.250		0	0	NR	NR	NR	0
AIRS	0.001		0	NR	NR	NR	NR	0
ASBESTOS	0.001		0	NR	NR	NR	NR	0
BEA	0.500		0	0	0	NR	NR	0
COAL ASH	0.500		0	0	0	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
LEAD	0.001		0	NR	NR	NR	NR	0
LEAD	0.001		0	NR	NR	NR	NR	0
MANIFEST	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
ENVIRO	0.001		0	NR	NR	NR	NR	0
SSCUP	0.500		0	0	0	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA PART 201	0.001		0	NR	NR	NR	NR	0
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	0	0	0	0	0	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

MAP FINDINGS

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number

NO SITES FOUND

Count: 1 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BROOKLYN	1007444596	GORMLEY BARTLETT LANDFILL	ON CASE RD 1/2 MI E OF HORNING		ODI

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: EPA
Telephone: N/A
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 10
Telephone 206-553-8665

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: EPA
Telephone: N/A
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Lists of Federal Delisted NPL sites

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: EPA
Telephone: N/A
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Quarterly

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/20/2024
Date Data Arrived at EDR: 12/18/2024
Date Made Active in Reports: 12/20/2024
Number of Days to Update: 2

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 12/18/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Quarterly

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The 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 potential NPL site.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Quarterly

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

Lists of Federal RCRA TSD facilities

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

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

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

Lists of Federal RCRA generators

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

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

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 07/15/2024
Date Data Arrived at EDR: 07/17/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 84

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/13/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 07/24/2024
Date Data Arrived at EDR: 08/08/2024
Date Made Active in Reports: 08/15/2024
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/15/2024
Next Scheduled EDR Contact: 12/02/2024
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 07/24/2024
Date Data Arrived at EDR: 08/08/2024
Date Made Active in Reports: 08/15/2024
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/15/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/11/2024
Date Data Arrived at EDR: 06/17/2024
Date Made Active in Reports: 09/04/2024
Number of Days to Update: 79

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/11/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

Lists of state- and tribal hazardous waste facilities

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

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

Date of Government Version: N/A
Date Data Arrived at EDR: 10/31/2013
Date Made Active in Reports: 11/20/2013
Number of Days to Update: 20

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-284-5103
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: No Update Planned

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF: Solid Waste Facilities Database

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 11/27/2024
Number of Days to Update: 71

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-335-4035
Last EDR Contact: 12/11/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Semi-Annually

Lists of state and tribal leaking storage tanks

LUST: Leaking Underground Storage Tank Sites

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 08/01/2024
Date Data Arrived at EDR: 08/07/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 77

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-9837
Last EDR Contact: 10/30/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/11/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

Lists of state and tribal registered storage tanks

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 08/12/2024
Date Data Arrived at EDR: 10/30/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 76

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

UST 2: Underground Storage Tank Listing
A listing of underground storage tank site locations that have unknown owner information.

Date of Government Version: 01/08/2024
Date Data Arrived at EDR: 01/18/2024
Date Made Active in Reports: 04/09/2024
Number of Days to Update: 82

Source: Department of Licensing & Regulatory Affairs
Telephone: 517-373-1820
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

UST: Underground Storage Tank Facility List
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 07/24/2024
Date Data Arrived at EDR: 08/06/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 78

Source: Department of Licensing & Regulatory Affairs
Telephone: 517-373-1820
Last EDR Contact: 11/06/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Annually

AST: Aboveground Tanks
Registered Aboveground Storage Tanks.

Date of Government Version: 08/01/2024
Date Data Arrived at EDR: 08/07/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 77

Source: Department of Licensing & Regulatory Affairs
Telephone: 517-373-1820
Last EDR Contact: 10/30/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: No Update Planned

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/11/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 07/29/2024
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

AUL: Engineering and Institutional Controls
A listing of sites with institutional and/or engineering controls in place.

Date of Government Version: 08/20/2024
Date Data Arrived at EDR: 08/20/2024
Date Made Active in Reports: 08/21/2024
Number of Days to Update: 1

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-4828
Last EDR Contact: 11/13/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Quarterly

Lists of state and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/10/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 07/08/2021
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

Lists of state and tribal brownfield sites

BROWNFIELDS: Brownfields and USTfield Site Database
All state funded Part 201 and 213 sites, as well as LUST sites that have been redeveloped by private entities using the BEA process. Be aware that this is not a list of all of the potential brownfield sites in Michigan.

Date of Government Version: 09/24/2024
Date Data Arrived at EDR: 10/17/2024
Date Made Active in Reports: 01/06/2025
Number of Days to Update: 81

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-4805
Last EDR Contact: 01/14/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

BROWNFIELDS 2: Brownfields Building and Land Site Locations
A listing of brownfield building and land site locations. The listing is a collaborative effort of Michigan Economic Development Corporation, Michigan Economic Developers Association, Detrot Edison, Detroit Area Commercial Board of Realtors

Date of Government Version: 10/15/2024
Date Data Arrived at EDR: 10/22/2024
Date Made Active in Reports: 01/09/2025
Number of Days to Update: 79

Source: Economic Development Corporation
Telephone: 888-522-0103
Last EDR Contact: 01/13/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
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 takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 09/09/2024
Date Data Arrived at EDR: 09/11/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/24/2025
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

HIST LF: Inactive Solid Waste Facilities
The database contains historical information and is no longer updated.

Date of Government Version: 03/01/1997
Date Data Arrived at EDR: 02/28/2003
Date Made Active in Reports: 03/06/2003
Number of Days to Update: 6

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-335-4034
Last EDR Contact: 02/28/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWRCY: Recycling Facilities
A listing of recycling center locations.

Date of Government Version: 06/14/2024
Date Data Arrived at EDR: 06/14/2024
Date Made Active in Reports: 09/06/2024
Number of Days to Update: 84

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-241-5719
Last EDR Contact: 12/10/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 05/05/2025
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 02/07/2024
Date Data Arrived at EDR: 11/13/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 6

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 12/09/2024
Next Scheduled EDR Contact: 05/05/2025
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 05/20/2024
Date Data Arrived at EDR: 08/19/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 51

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: No Update Planned

PART 201: Part 201 Site List

A Part 201 Listed site is a location that has been evaluated and scored by the DEQ using the Part 201 scoring model. The location is or includes a "facility" as defined by Part 201, where there has been a release of a hazardous substance(s) in excess of the Part 201 residential criteria, and/or where corrective actions have not been completed under Part 201 to meet the applicable cleanup criteria for unrestricted residential use. The Part 201 List does not include all of the sites of contamination that are subject to regulation under Part 201 because owners are not required to inform the DEQ about the sites and can pursue cleanup independently. Sites of environmental contamination that are not known to DEQ are not on the list, nor are sites with releases that resulted in low environmental impact.

Date of Government Version: 10/15/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 01/06/2025
Number of Days to Update: 82

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-284-5103
Last EDR Contact: 01/15/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: No Update Planned

INVENTORY: Inventory of Facilities

The Inventory of Facilities has three data sources: Facilities under Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA) identified through state funded or private party response activities (Projects); Facilities under Part 213, Leaking Underground Storage Tanks of the NREPA; and Facilities identified through submittals of Baseline Environmental Assessments (BEA) submitted pursuant to Part 201 or Part 213 of the NREPA. The Part 201 Projects Inventory does not include all of the facilities that are subject to regulation under Part 201 because owners are not required to inform the Department of Environmental Quality (DEQ) about the facilities and can pursue cleanup independently. Facilities that are not known to DEQ are not on the Inventory, nor are locations with releases that resulted in low environmental impact. Part 213 facilities listed here may have more than one release; a list of releases for which corrective actions have been completed and list of releases for which corrective action has not been completed is located on the Leaking Underground Storage Tanks Site Search webpage. The DEQ may or may not have reviewed and concurred with the conclusion that the corrective actions described in a closure report meets criteria. A BEA is a document that new or prospective property owners/operations disclose to the DEQ identifying the property as a facility pursuant to Part 201 and Part 213. The Inventory of BEA Facilities overlaps in part with the Part 201 Projects facilities and Part 213 facilities. There may be more than one BEA for each facility.

Date of Government Version: 10/15/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 01/06/2025
Number of Days to Update: 82

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-284-5136
Last EDR Contact: 01/14/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Quarterly

CDL: Clandestine Drug Lab Listing

A listing of clandestine drug lab locations.

Date of Government Version: 07/17/2024
Date Data Arrived at EDR: 07/31/2024
Date Made Active in Reports: 08/08/2024
Number of Days to Update: 8

Source: Department of Community Health
Telephone: 517-373-3740
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: No Update Planned

DEL PART 201: Delisted List of Contaminated Sites

A deleted site has been removed from the Part 201 List because information known to the DEQ at the time of the evaluation does not support inclusion on the Part 201 List. This designation is often applied to sites where changes in cleanup criteria resulted in a determination that the site no longer exceeds any applicable cleanup criterion. A delisted site has been removed from the Part 201 List because response actions have reduced the levels of contaminants to concentrations which meet or are below the criteria for unrestricted residential use.

Date of Government Version: 10/15/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 01/06/2025
Number of Days to Update: 82

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-9541
Last EDR Contact: 01/15/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/20/2024
Date Data Arrived at EDR: 08/19/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 51

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Quarterly

Local Land Records

LIENS: Lien List

An Environmental Lien is a charge, security, or encumbrance upon title to a property to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of hazardous substances or petroleum products upon a property, including (but not limited to) liens imposed pursuant to CERCLA 42 USC * 9607(1) and similar state or local laws. In other words: a lien placed upon a property's title due to an environmental condition

Date of Government Version: 07/22/2024
Date Data Arrived at EDR: 10/08/2024
Date Made Active in Reports: 12/23/2024
Number of Days to Update: 76

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-241-7603
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/14/2024
Date Data Arrived at EDR: 06/17/2024
Date Made Active in Reports: 06/24/2024
Number of Days to Update: 7

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 12/11/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

PEAS: Pollution Emergency Alerting System

Environmental pollution emergencies reported to the Department of Environmental Quality such as tanker accidents, pipeline breaks, and release of reportable quantities of hazardous substances.

Date of Government Version: 09/27/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 01/06/2025
Number of Days to Update: 82

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-8427
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Quarterly

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

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

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 10/01/2024
Date Data Arrived at EDR: 11/12/2024
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 70

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 11/12/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 06/07/2021
Date Data Arrived at EDR: 07/13/2021
Date Made Active in Reports: 03/09/2022
Number of Days to Update: 239

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/07/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 12/30/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 07/30/2021
Date Data Arrived at EDR: 02/03/2023
Date Made Active in Reports: 02/10/2023
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 11/04/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/20/2024
Number of Days to Update: 94

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA Watch List

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: No Update Planned

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 10/31/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 06/14/2022
Date Made Active in Reports: 03/24/2023
Number of Days to Update: 283

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/24/2025
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2022
Date Data Arrived at EDR: 11/13/2023
Date Made Active in Reports: 02/07/2024
Number of Days to Update: 86

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 11/14/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 10/15/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 90

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/15/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 10/24/2024
Date Data Arrived at EDR: 11/01/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 18

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 10/01/2024
Date Data Arrived at EDR: 10/23/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 09/19/2023
Date Data Arrived at EDR: 10/03/2023
Date Made Active in Reports: 10/19/2023
Number of Days to Update: 16

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 10/02/2024
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 100

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/12/2024
Date Data Arrived at EDR: 10/17/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 33

Source: Nuclear Regulatory Commission
Telephone: 301-415-0717
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2023
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 90
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 11/20/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 11/20/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 10/31/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 10/04/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 51

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2024
Date Data Arrived at EDR: 10/09/2024
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 93

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 12/30/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2021
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 03/20/2023
Number of Days to Update: 11

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 12/30/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 03/03/2023
Date Data Arrived at EDR: 03/03/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 98

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 05/08/2024
Date Data Arrived at EDR: 08/14/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 14

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 11/14/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 10/01/2024
Date Data Arrived at EDR: 10/02/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 7

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Quarterly

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/06/2024
Date Data Arrived at EDR: 08/14/2024
Date Made Active in Reports: 08/15/2024
Number of Days to Update: 1

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 11/18/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/02/2024
Date Data Arrived at EDR: 08/20/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 50

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System

Mineral Resources Data System

Date of Government Version: 08/23/2022
Date Data Arrived at EDR: 11/22/2022
Date Made Active in Reports: 02/28/2023
Number of Days to Update: 98

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/10/2024
Date Data Arrived at EDR: 09/11/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 69

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 12/10/2024
Next Scheduled EDR Contact: 03/17/2025
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 08/13/2024
Date Data Arrived at EDR: 08/20/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 8

Source: EPA
Telephone: (312) 353-2000
Last EDR Contact: 11/20/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites
A listing of unexploded ordnance site locations

Date of Government Version: 09/06/2023
Date Data Arrived at EDR: 09/13/2023
Date Made Active in Reports: 12/11/2023
Number of Days to Update: 89

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 01/06/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/06/2021
Date Data Arrived at EDR: 05/21/2021
Date Made Active in Reports: 08/11/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 11/13/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information
ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 12/21/2024
Date Data Arrived at EDR: 12/27/2024
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 14

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 12/27/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 11/08/2024
Date Data Arrived at EDR: 11/08/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 67

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 11/08/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Quarterly

PFAS NPL: Superfund Sites with PFAS Detections Information
EPA's Office of Land and Emergency Management and EPA Regional Offices maintain data describing what is known about site investigations, contamination, and remedial actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) where PFAS is present in the environment.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 703-603-8895
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS FEDERAL SITES: Federal Sites PFAS Information
Several federal entities, such as the federal Superfund program, Department of Defense, National Aeronautics and Space Administration, Department of Transportation, and Department of Energy provided information for sites with known or suspected detections at federal facilities.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS TSCA: PFAS Manufacture and Imports Information

EPA issued the Chemical Data Reporting (CDR) Rule under the Toxic Substances Control Act (TSCA) and requires chemical manufacturers and facilities that manufacture or import chemical substances to report data to EPA. EPA publishes non-confidential business information (non-CBI) and includes descriptive information about each site, corporate parent, production volume, other manufacturing information, and processing and use information.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS TRIS: List of PFAS Added to the TRI

Section 7321 of the National Defense Authorization Act for Fiscal Year 2020 (NDAA) immediately added certain per- and polyfluoroalkyl substances (PFAS) to the list of chemicals covered by the Toxics Release Inventory (TRI) under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) and provided a framework for additional PFAS to be added to TRI on an annual basis.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-566-0250
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS RCRA MANIFEST: PFAS Transfers Identified In the RCRA Database Listing

To work around the lack of PFAS waste codes in the RCRA database, EPA developed the PFAS Transfers dataset by mining e-Manifest records containing at least one of these common PFAS keywords: PFAS, PFOA, PFOS, PERFL, AFFF, GENX, GEN-X (plus the VT waste codes). These keywords were searched for in the following text fields: Manifest handling instructions (MANIFEST_HANDLING_INSTR), Non-hazardous waste description (NON_HAZ_WASTE_DESCRIPTION), DOT printed information (DOT_PRINTED_INFORMATION), Waste line handling instructions (WASTE_LINE_HANDLING_INSTR), Waste residue comments (WASTE_RESIDUE_COMMENTS).

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS ATSDR: PFAS Contamination Site Location Listing

PFAS contamination site locations from the Department of Health & Human Services, Center for Disease Control & Prevention. ATSDR is involved at a number of PFAS-related sites, either directly or through assisting state and federal partners. As of now, most sites are related to drinking water contamination connected with PFAS production facilities or fire training areas where aqueous film-forming firefighting foam (AFFF) was regularly used.

Date of Government Version: 06/24/2020
Date Data Arrived at EDR: 03/17/2021
Date Made Active in Reports: 11/08/2022
Number of Days to Update: 601

Source: Department of Health & Human Services
Telephone: 202-741-5770
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 05/05/2025
Data Release Frequency: Varies

PFAS WQP: Ambient Environmental Sampling for PFAS

The Water Quality Portal (WQP) is a part of a modernized repository storing ambient sampling data for all environmental media and tissue samples. A wide range of federal, state, tribal and local governments, academic and non-governmental organizations and individuals submit project details and sampling results to this public repository. The information is commonly used for research and assessments of environmental quality.

Date of Government Version: 12/13/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS NPDES: Clean Water Act Discharge Monitoring Information

Any discharger of pollutants to waters of the United States from a point source must have a National Pollutant Discharge Elimination System (NPDES) permit. The process for obtaining limits involves the regulated entity (permittee) disclosing releases in a NPDES permit application and the permitting authority (typically the state but sometimes EPA) deciding whether to require monitoring or monitoring with limits. Caveats and Limitations: Less than half of states have required PFAS monitoring for at least one of their permittees and fewer states have established PFAS effluent limits for permittees. New rulemakings have been initiated that may increase the number of facilities monitoring for PFAS in the future.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS PROJECT: NORTHEASTERN UNIVERSITY PFAS PROJECT

The PFAS Contamination Site Tracker records qualitative and quantitative data from each site in a chart, specifically examining discovery, contamination levels, government response, litigation, health impacts, media coverage, and community characteristics. All data presented in the chart were extracted from government websites, such as state health departments or the Environmental Protection Agency, and news articles.

Date of Government Version: 05/19/2023
Date Data Arrived at EDR: 04/05/2024
Date Made Active in Reports: 06/06/2024
Number of Days to Update: 62

Source: Social Science Environmental Health Research Institute
Telephone: N/A
Last EDR Contact: 12/05/2024
Next Scheduled EDR Contact: 03/17/2025
Data Release Frequency: Varies

PFAS ECHO: Facilities in Industries that May Be Handling PFAS Listing

Regulators and the public have expressed interest in knowing which regulated entities may be using PFAS. EPA has developed a dataset from various sources that show which industries may be handling PFAS. Approximately 120,000 facilities subject to federal environmental programs have operated or currently operate in industry sectors with processes that may involve handling and/or release of PFAS.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS ECHO FIRE TRAIN: Facilities in Industries that May Be Handling PFAS Listing

A list of fire training sites was added to the Industry Sectors dataset using a keyword search on the permitted facilitys name to identify sites where fire-fighting foam may have been used in training exercises. Additionally, you may view an example spreadsheet of the subset of fire training facility data, as well as the keywords used in selecting or deselecting a facility for the subset. as well as the keywords used in selecting or deselecting a facility for the subset. These keywords were tested to maximize accuracy in selecting facilities that may use fire-fighting foam in training exercises, however, due to the lack of a required reporting field in the data systems for designating fire training sites, this methodology may not identify all fire training sites or may potentially misidentify them.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS PT 139 AIRPORT: All Certified Part 139 Airports PFAS Information Listing

Since July 1, 2006, all certified part 139 airports are required to have fire-fighting foam onsite that meet military specifications (MIL-F-24385) (14 CFR 139.317). To date, these military specification fire-fighting foams are fluorinated and have been historically used for training and extinguishing. The 2018 FAA Reauthorization Act has a provision stating that no later than October 2021, FAA shall not require the use of fluorinated AFFF. This provision does not prohibit the use of fluorinated AFFF at Part 139 civilian airports; it only prohibits FAA from mandating its use. The Federal Aviation Administration?s document AC 150/5210-6D - Aircraft Fire Extinguishing Agents provides guidance on Aircraft Fire Extinguishing Agents, which includes Aqueous Film Forming Foam (AFFF).

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

AQUEOUS FOAM NRC: Aqueous Foam Related Incidents Listing

The National Response Center (NRC) serves as an emergency call center that fields initial reports for pollution and railroad incidents and forwards that information to appropriate federal/state agencies for response. The spreadsheets posted to the NRC website contain initial incident data that has not been validated or investigated by a federal/state response agency. Response center calls from 1990 to the most recent complete calendar year where there was indication of Aqueous Film Forming Foam (AFFF) usage are included in this dataset. NRC calls may reference AFFF usage in the ?Material Involved? or ?Incident Description? fields.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-267-2675
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PCS: Permit Compliance System

PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 12/16/2016
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 03/10/2017
Number of Days to Update: 63

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: No Update Planned

PCS ENF: Enforcement data

No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

BIOSOLIDS: ICIS-NPDES Biosolids Facility Data

The data reflects compliance information about facilities in the biosolids program.

Date of Government Version: 10/13/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 202-564-4700
Last EDR Contact: 01/14/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

UST FINDER RELEASE: UST Finder Releases Database

US EPA's UST Finder data is a national composite of leaking underground storage tanks. This data contains information about, and locations of, leaking underground storage tanks. Data was collected from state sources and standardized into a national profile by EPA's Office of Underground Storage Tanks, Office of Research and Development, and the Association of State and Territorial Solid Waste Management Officials.

Date of Government Version: 06/08/2023
Date Data Arrived at EDR: 10/31/2023
Date Made Active in Reports: 01/18/2024
Number of Days to Update: 79

Source: Environmental Protecton Agency
Telephone: 202-564-0394
Last EDR Contact: 11/06/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Semi-Annually

UST FINDER: UST Finder Database

EPA developed UST Finder, a web map application containing a comprehensive, state-sourced national map of underground storage tank (UST) and leaking UST (LUST) data. It provides the attributes and locations of active and closed USTs, UST facilities, and LUST sites from states and from Tribal lands and US territories . UST Finder contains information about proximity of UST facilities and LUST sites to: surface and groundwater public drinking water protection areas; estimated number of private domestic wells and number of people living nearby; and flooding and wildfires.

Date of Government Version: 06/08/2023
Date Data Arrived at EDR: 10/04/2023
Date Made Active in Reports: 01/18/2024
Number of Days to Update: 106

Source: Environmental Protection Agency
Telephone: 202-564-0394
Last EDR Contact: 11/06/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

E MANIFEST: Hazardous Waste Electronic Manifest System

EPA established a national system for tracking hazardous waste shipments electronically. This system, known as ?e-Manifest,? will modernize the nation?s cradle-to-grave hazardous waste tracking process while saving valuable time, resources, and dollars for industry and states.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/20/2024
Number of Days to Update: 94

Source: Environmental Protection Agency
Telephone: 833-501-6826
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Varies

PFAS: PFAS Contaminated Sites Listing

PFAS have been widely used in numerous industrial and residential applications since the 1950a??s. Their stability and unique chemical properties produce waterproof, stain resistant, and nonstick qualities in products. They are found in some firefighting foams and a wide range of consumer products such as carpet treatments, non-stick cookware, water-resistant fabrics, food packaging materials, and personal care products.

Date of Government Version: 02/15/2024
Date Data Arrived at EDR: 08/06/2024
Date Made Active in Reports: 10/24/2024
Number of Days to Update: 79

Source: Department of Environment, Great Lakes & Energy
Telephone: 517-284-9278
Last EDR Contact: 11/06/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

AQUEOUS FOAM: Aqueous Film Forma Foam Listing

Sites with Aqueous Film Forming Foam contamination, as reported to the Department of Environment, Great Lakes & Energy. AFFF is a fire suppressant used to extinguish flammable liquid fires such as fuel fires.

Date of Government Version: 10/22/2024
Date Data Arrived at EDR: 10/25/2024
Date Made Active in Reports: 01/09/2025
Number of Days to Update: 76

Source: Department of Environment, Great Lakes & Energy
Telephone: 517-284-9278
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

AIRS: Permit and Emissions Inventory Data

Permit and emissions inventory data.

Date of Government Version: 09/12/2024
Date Data Arrived at EDR: 09/13/2024
Date Made Active in Reports: 11/25/2024
Number of Days to Update: 73

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-7074
Last EDR Contact: 12/04/2024
Next Scheduled EDR Contact: 03/24/2025
Data Release Frequency: Annually

ASBESTOS: Asbestos Notification Listing

Asbestos

Date of Government Version: 09/30/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 7

Source: Department of Licensing & Regulatory Affairs
Telephone: 517-284-7699
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Quarterly

BEA: Baseline Environmental Assessment Database

A BEA is a document that new or prospective property owners/operations disclose to the DEQ identifying the property as a facility pursuant to Part 201 and Part 213. The Inventory of BEA Facilities overlaps in part with the Part 201 Projects facilities and Part 213 facilities. There may be more than one BEA for each facility.

Date of Government Version: 08/15/2024
Date Data Arrived at EDR: 08/16/2024
Date Made Active in Reports: 11/04/2024
Number of Days to Update: 80

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-9541
Last EDR Contact: 10/30/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: No Update Planned

COAL ASH: Coal Ash Disposal Sites

Coal fired power plants in Southeast Michigan that have coal ash handling on site.

Date of Government Version: 04/01/2021
Date Data Arrived at EDR: 04/06/2021
Date Made Active in Reports: 06/24/2021
Number of Days to Update: 79

Source: Department of Environment, Great Lakes, and Energy
Telephone: 586-753-3754
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

DRYCLEANERS: Drycleaning Establishments

A listing of drycleaning facilities in Michigan.

Date of Government Version: 04/25/2024
Date Data Arrived at EDR: 07/09/2024
Date Made Active in Reports: 10/02/2024
Number of Days to Update: 85

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-335-4586
Last EDR Contact: 01/07/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Quarterly

FIN ASSURANCE 1: Financial Assurance Information Listing

Financial assurance information.

Date of Government Version: 03/02/2024
Date Data Arrived at EDR: 04/04/2024
Date Made Active in Reports: 07/02/2024
Number of Days to Update: 89

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-335-6610
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Semi-Annually

FIN ASSURANCE 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 09/13/2024
Date Data Arrived at EDR: 09/18/2024
Date Made Active in Reports: 12/04/2024
Number of Days to Update: 77

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-335-4034
Last EDR Contact: 12/10/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Varies

FIN ASSURANCE 3: Financial Assurance Information Listing

Financial assurance information for underground storage tank facilities.

Date of Government Version: 09/19/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 12/18/2024
Number of Days to Update: 78

Source: Department of Licensing & Regulatory Affairs
Telephone: 517-335-7279
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

LEAD: Lead Information Registry Listing

All properties in this registry received a lead-based paint inspection or a lead risk assessment, and a lead abatement service. A lead-based paint inspection identifies any lead present on the property. The lead risk assessment determines if any of the lead found is a hazard. Lead abatement services address or remove the lead hazards.

Date of Government Version: 02/28/2024
Date Data Arrived at EDR: 02/29/2024
Date Made Active in Reports: 05/21/2024
Number of Days to Update: 82

Source: Department of Health & Human Services
Telephone: 517-335-9390
Last EDR Contact: 11/19/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Varies

LEAD CERT: Lead Safe Housing Registry

A listing of Michigan properties included in the Lead Safe Housing Registry.

Date of Government Version: 03/25/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 82

Source: Department of Community Health
Telephone: 517-335-9699
Last EDR Contact: 11/19/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Quarterly

MI MANIFEST: Hazardous Waste Manifest Data

A generator who transports, or offers for transportation, hazardous waste for off-site treatment, storage or disposal must prepare a hazardous waste manifest to accompany such shipment.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 06/23/2023
Date Made Active in Reports: 12/12/2023
Number of Days to Update: 172

Source: Department of Environment, Great Lakes & Energy
Telephone: 517-284-6838
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 05/05/2025
Data Release Frequency: Annually

NPDES: List of Active NPDES Permits

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

Date of Government Version: 10/07/2024
Date Data Arrived at EDR: 10/11/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 95

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-241-1300
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

UIC: Underground Injection Wells Database

A listing of underground injection well locations. The UIC Program is responsible for regulating the construction, operation, permitting, and closure of injection wells that place fluids underground for storage or disposal.

Date of Government Version: 10/09/2024
Date Data Arrived at EDR: 10/17/2024
Date Made Active in Reports: 01/07/2025
Number of Days to Update: 82

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-241-1515
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Quarterly

WDS: Waste Data System

The Waste Data System (WDS) tracks activities at facilities regulated by the Solid Waste, Scrap Tire, Hazardous Waste, and Liquid Industrial Waste programs.

Date of Government Version: 12/08/2023
Date Data Arrived at EDR: 12/11/2023
Date Made Active in Reports: 03/05/2024
Number of Days to Update: 85

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-284-6562
Last EDR Contact: 11/07/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Varies

ENVIRO: Michigan Enviro Information

MiEnviro is permitting and compliance for air quality and water resources, including National Pollutant Discharge Elimination System (NPDES), storm water, groundwater discharge, aquatic nuisance control, Part 41 construction, medical waste registrations, and land and water interface permits.

Date of Government Version: 09/30/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 12/18/2024
Number of Days to Update: 78

Source: Department of Environment, Great Lakes, & Energy
Telephone: 800-662-9278
Last EDR Contact: 12/30/2024
Next Scheduled EDR Contact: 04/13/2025
Data Release Frequency: Quarterly

SSCUP: State Owned Sites Cleanup Program List

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.

Date of Government Version: 12/31/2023
Date Data Arrived at EDR: 07/16/2024
Date Made Active in Reports: 10/07/2024
Number of Days to Update: 83

Source: Department of Environment, Great Lakes & Energy
Telephone: 517-284-5153
Last EDR Contact: 07/16/2024
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA PART 201: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/24/2013
Number of Days to Update: 176

Source: Department of Environment, Great Lakes, and Energy
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Environment, Great Lakes, and Energy
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/24/2013
Number of Days to Update: 176

Source: Department of Environment, Great Lakes, and Energy
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 08/05/2024
Date Data Arrived at EDR: 08/06/2024
Date Made Active in Reports: 10/25/2024
Number of Days to Update: 80

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/05/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 11/30/2023
Date Made Active in Reports: 12/01/2023
Number of Days to Update: 1

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/06/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/18/2022
Number of Days to Update: 80

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/07/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 11/27/2024
Next Scheduled EDR Contact: 03/17/2025
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data

Source: Endeavor Business Media

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Day Care Centers, Group & Family Homes
Source: Bureau of REgulatory Services
Telephone: 517-373-8300

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Department of Natural Resources
Telephone: 517-241-2254

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

14760 HORNUNG ROAD
14760 HORNUNG ROAD
BROOKLYN, MI 49230

TARGET PROPERTY COORDINATES

Latitude (North):	42.121526 - 42° 7' 17.49''
Longitude (West):	84.149806 - 84° 8' 59.30''
Universal Tranverse Mercator:	Zone 16
UTM X (Meters):	735613.1
UTM Y (Meters):	4666988.0
Elevation:	996 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	14450260 ONSTED, MI
Version Date:	2019
North Map:	14450254 NORVELL, MI
Version Date:	2019
Northeast Map:	14450238 MANCHESTER, MI
Version Date:	2019
Southeast Map:	14450292 TIPTON, MI
Version Date:	2019

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

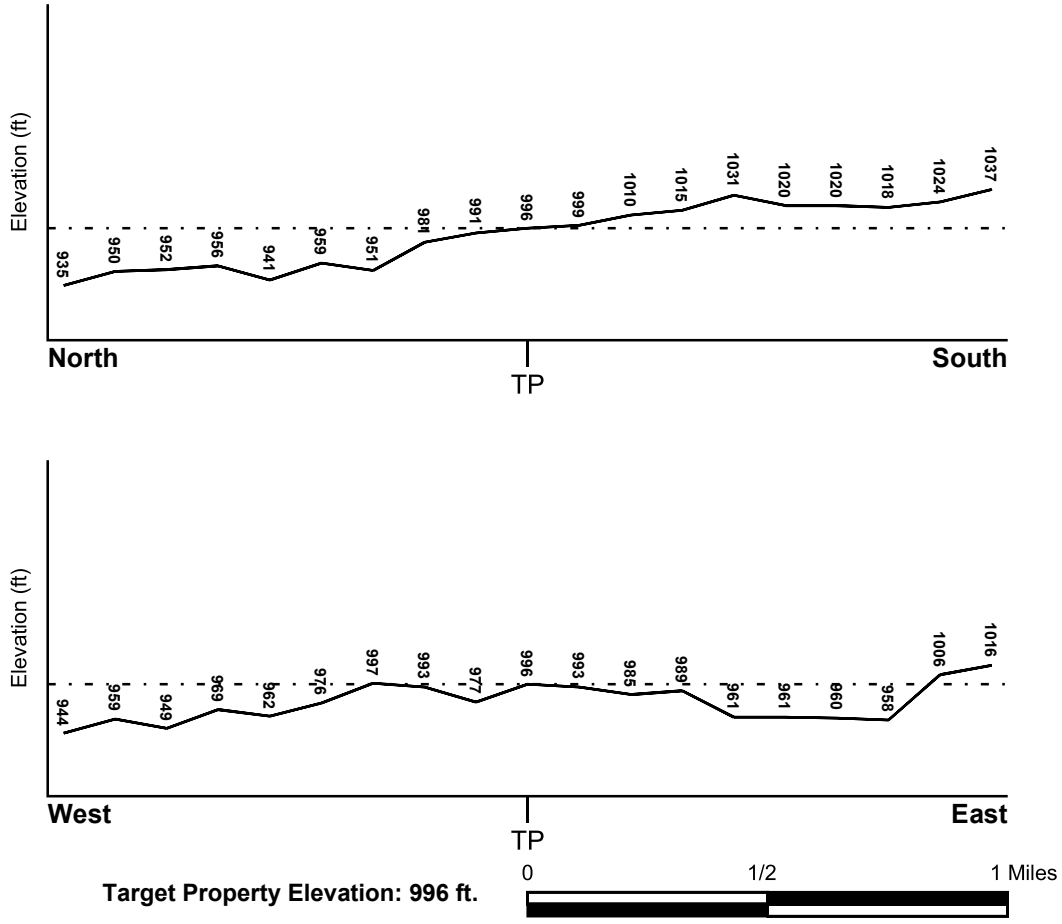
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NNE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 996 ft.

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
26075C0500D	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
26075C0370D	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
ONSTED	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site-specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Paleozoic
System:	Mississippian
Series:	Osagean and Kinderhookian Series
Code:	M1 *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name:	HOUGHTON
Soil Surface Texture:	muck
Hydrologic Group:	Class A/D - Drained/undrained hydrology class of soils that can be drained and are classified.
Soil Drainage Class:	Very poorly. Soils are wet to the surface most of the time. Depth to water table is less than 1 foot, or is ponded.

Hydric Status: Soil meets the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel:	HIGH
Depth to Bedrock Min:	> 60 inches
Depth to Bedrock Max:	> 60 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	9 inches	muck	A-8	Highly organic soils, Peat.	Max: 6.00 Min: 0.20	Max: 7.80 Min: 4.50
2	9 inches	66 inches	muck	A-8	Highly organic soils, Peat.	Max: 6.00 Min: 0.20	Max: 7.80 Min: 4.50

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: loamy sand
sandy loam
loam
gravelly - sandy loam

Surficial Soil Types: loamy sand
sandy loam
loam
gravelly - sandy loam

Shallow Soil Types: sand
sandy loam
silty clay loam
cobbly - sandy loam
clay loam
gravelly - sandy clay loam

Deeper Soil Types: fine sand
gravelly - sand
sand and gravel
stratified
loam

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

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

STATE DATABASE WELL INFORMATION

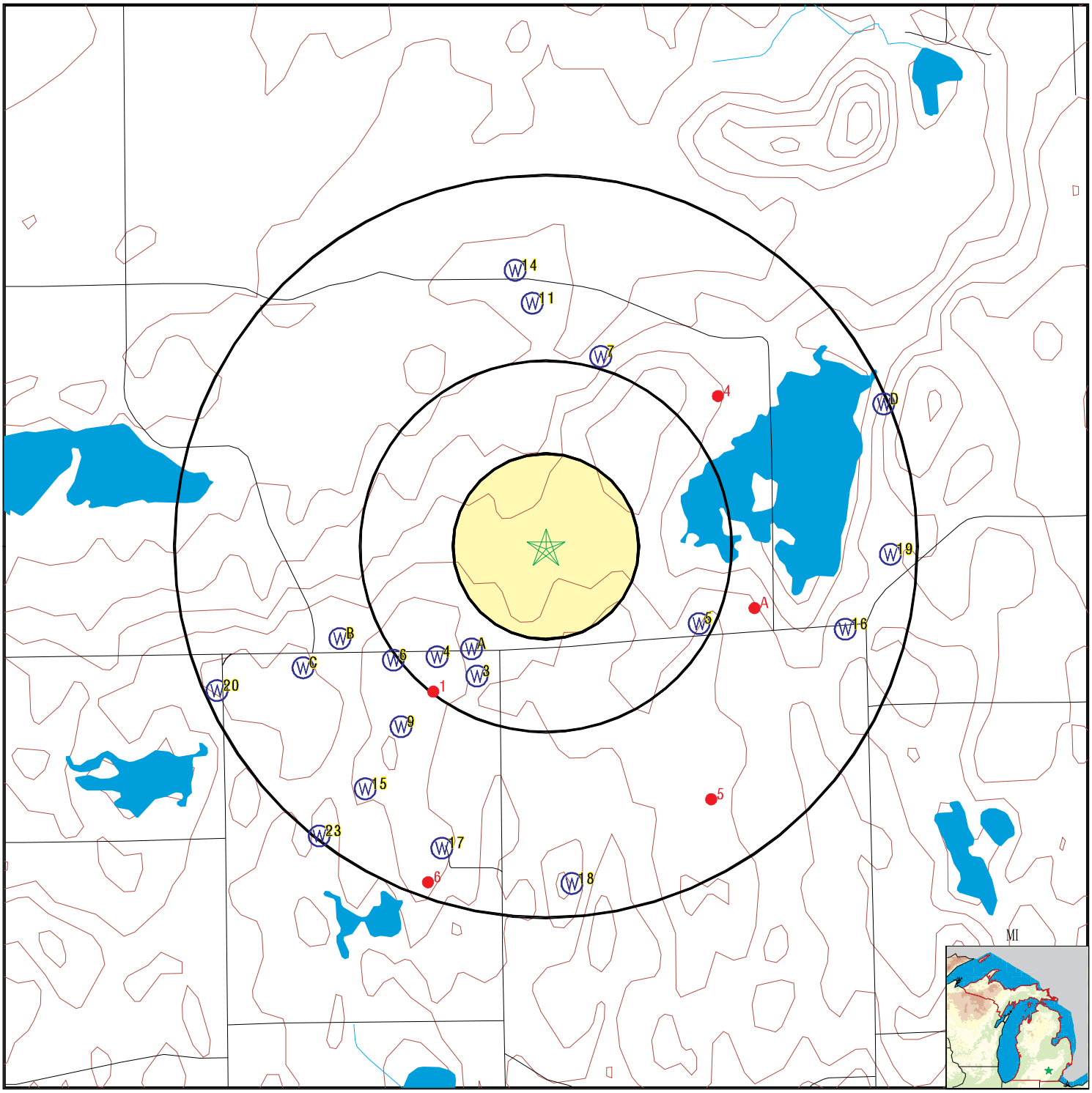
MAP ID	WELL ID	LOCATION FROM TP
A1	MI6000000344701	1/4 - 1/2 Mile SW
A2	MI6000000342218	1/4 - 1/2 Mile SSW
3	MI6000000344021	1/4 - 1/2 Mile SSW
4	MI6000000349104	1/4 - 1/2 Mile SW
5	MI6000000344702	1/4 - 1/2 Mile ESE
6	MI6000000353898	1/2 - 1 Mile SW
7	MI6000000348809	1/2 - 1 Mile NNE
B8	MI6000000346764	1/2 - 1 Mile WSW
9	MI6000000346066	1/2 - 1 Mile SW
B10	MI6000000353901	1/2 - 1 Mile WSW
11	MI6000000344703	1/2 - 1 Mile North
C12	MI6000000343797	1/2 - 1 Mile WSW
C13	MI6000000350049	1/2 - 1 Mile WSW
14	MI6000000344708	1/2 - 1 Mile North
15	MI6000000342694	1/2 - 1 Mile SW
16	MI6000000344721	1/2 - 1 Mile ESE
17	MI6000000355275	1/2 - 1 Mile SSW
18	MI6000000349714	1/2 - 1 Mile South
19	MI6000000876278	1/2 - 1 Mile East
20	MI6000000342805	1/2 - 1 Mile WSW
D21	MI6000000886275	1/2 - 1 Mile ENE
D22	MI6000000886274	1/2 - 1 Mile ENE
23	MI6000000346759	1/2 - 1 Mile SW

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	MIOG13000038980	1/4 - 1/2 Mile SW
A3	MIOG13000038160	1/2 - 1 Mile ESE
A2	MIOG13000038159	1/2 - 1 Mile ESE
4	MIOG13000038974	1/2 - 1 Mile NE
5	MIOG13000038427	1/2 - 1 Mile SSE
6	MIOG13000038986	1/2 - 1 Mile SSW

PHYSICAL SETTING SOURCE MAP - 7877200.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	14760 Hornung Road	CLIENT:	Applied Science & Technology
ADDRESS:	14760 Hornung Road Brooklyn MI 49230	CONTACT:	Bailey Bishop
		INQUIRY #:	7877200.2s
LAT/LONG:	42.121526 / 84.149806	DATE:	January 22, 2025 3:27 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A1
SW
1/4 - 1/2 Mile
Higher

MI WELLS **MI6000000344701**

WELLS:

Well ID:	38000007712	Permit #:	4211
Owner:	GLYNN TROLZ	Well Depth (ft):	89
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0106	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	13-OCT-75
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	6	Case Depth (ft):	79
Screen Start Depth (ft):	79	Screen End Depth (ft):	89
Static Water Level (ft):	47	Flowing:	N
Test Drawdown Depth (ft):	67	Test Hours:	2
Test Rate:	19	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	9
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

A2
SSW
1/4 - 1/2 Mile
Higher

MI WELLS **MI6000000342218**

WELLS:

Well ID:	38000004522	Permit #:	7580
Owner:	TIM & KATHY EVERHART	Well Depth (ft):	102
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	14-DEC-00
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	99
Screen Start Depth (ft):	98	Screen End Depth (ft):	102
Static Water Level (ft):	57	Flowing:	N
Test Drawdown Depth (ft):	81	Test Hours:	1
Test Rate:	20	Test Method:	TSTPUM
Well Grouted:	Y	Pump Capacity (gpm):	12
Elevation (ft):	0	Specific Capacity:	.24691358
Rock Top (ft):	0		

3
SSW
1/4 - 1/2 Mile
Higher

MI WELLS **MI6000000344021**

WELLS:

Well ID:	38000006866	Permit #:	12150
Owner:	Tim & Kathy Everhart	Well Depth (ft):	98
Well Type:	Household	Other Type Info:	Not Reported

Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	19-SEP-03
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	94
Screen Start Depth (ft):	94	Screen End Depth (ft):	98
Static Water Level (ft):	58	Flowing:	N
Test Drawdown Depth (ft):	73	Test Hours:	1
Test Rate:	20	Test Method:	TSTPUM
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	.2739726
Rock Top (ft):	0		

4
SW
1/4 - 1/2 Mile
Higher

MI WELLS **MI6000000349104**

WELLS:

Well ID:	38000014131	Permit #:	19303
Owner:	Jimmie Dugan	Well Depth (ft):	109
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-2487	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	02-AUG-18
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	101
Screen Start Depth (ft):	101	Screen End Depth (ft):	105
Static Water Level (ft):	70	Flowing:	N
Test Drawdown Depth (ft):	85	Test Hours:	12
Test Rate:	12	Test Method:	TSTPUM
Well Grouted:	Y	Pump Capacity (gpm):	20
Elevation (ft):	0	Specific Capacity:	.14117647
Rock Top (ft):	0		

5
ESE
1/4 - 1/2 Mile
Higher

MI WELLS **MI6000000344702**

WELLS:

Well ID:	38000007713	Permit #:	Not Reported
Owner:	GLYNN TROLZ	Well Depth (ft):	148
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0106	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	26-FEB-68
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	4	Case Depth (ft):	144
Screen Start Depth (ft):	144	Screen End Depth (ft):	148
Static Water Level (ft):	76	Flowing:	N
Test Drawdown Depth (ft):	82	Test Hours:	2
Test Rate:	15	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	0

Rock Top (ft):	0

6
SW
1/2 - 1 Mile
Higher

MI WELLS **MI6000000353898**

WELLS:

Well ID:	38000019185	Permit #:	1786
Owner:	WILBUR LAMB	Well Depth (ft):	220
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	23-0107	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	24-JUN-96
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	206
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	66	Flowing:	N
Test Drawdown Depth (ft):	0	Test Hours:	0
Test Rate:	0	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	200		

7
NNE
1/2 - 1 Mile
Lower

MI WELLS **MI6000000348809**

WELLS:

Well ID:	38000013767	Permit #:	18827
Owner:	Bill Hubbell	Well Depth (ft):	32
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-2487	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	11-JUL-17
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	28
Screen Start Depth (ft):	28	Screen End Depth (ft):	32
Static Water Level (ft):	21	Flowing:	N
Test Drawdown Depth (ft):	21	Test Hours:	2
Test Rate:	15	Test Method:	TSTPUM
Well Grouted:	Y	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	.71428571
Rock Top (ft):	0		

B8
WSW
1/2 - 1 Mile
Higher

MI WELLS **MI6000000346764**

WELLS:

Well ID:	38000011057	Permit #:	15438
Owner:	Pat Chase	Well Depth (ft):	226

Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-2487	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	20-APR-08
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	192
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	80	Flowing:	N
Test Drawdown Depth (ft):	82	Test Hours:	2
Test Rate:	18	Test Method:	TSTPUM
Well Grouted:	Y	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	.2195122
Rock Top (ft):	187		

9
SW
1/2 - 1 Mile
Higher

MI WELLS **MI6000000346066**

WELLS:

Well ID:	38000009552	Permit #:	14546
Owner:	SHARON BENDY	Well Depth (ft):	202
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	13-1593	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	14-JUN-06
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	180
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	68	Flowing:	N
Test Drawdown Depth (ft):	80	Test Hours:	1
Test Rate:	30	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

B10
WSW
1/2 - 1 Mile
Higher

MI WELLS **MI6000000353901**

WELLS:

Well ID:	38000019188	Permit #:	W6854
Owner:	JOHN SENKEWITZ	Well Depth (ft):	198
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-0624	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	19-MAR-99
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	172
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	58	Flowing:	N
Test Drawdown Depth (ft):	59	Test Hours:	2
Test Rate:	12	Test Method:	TSTPUM
Well Grouted:	Y	Pump Capacity (gpm):	12

Elevation (ft):	0	Specific Capacity:	.20338983
Rock Top (ft):	0		

11
North
1/2 - 1 Mile
Lower

MI WELLS **MI6000000344703**

WELLS:

Well ID:	38000007714	Permit #:	7594
Owner:	MICHAEL ARNOLD	Well Depth (ft):	140
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	23-2033	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	02-AUG-99
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	124
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	33	Flowing:	N
Test Drawdown Depth (ft):	140	Test Hours:	3
Test Rate:	80	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	120		

C12
WSW
1/2 - 1 Mile
Higher

MI WELLS **MI6000000343797**

WELLS:

Well ID:	38000006538	Permit #:	11713
Owner:	MARK DISNEY	Well Depth (ft):	147
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	13-1593	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	16-JUN-03
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	142
Screen Start Depth (ft):	142	Screen End Depth (ft):	147
Static Water Level (ft):	66	Flowing:	N
Test Drawdown Depth (ft):	90	Test Hours:	1
Test Rate:	30	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

C13
WSW
1/2 - 1 Mile
Higher

MI WELLS **MI6000000350049**

WELLS:

Well ID:	38000015266	Permit #:	20615

Owner:	WILLIAM AND JAYME SCHAFFER		
Well Depth (ft):	198	Well Type:	Household
Other Type Info:	Not Reported	Well Status:	Active
Other Status Info:	Not Reported	Water Supply Serial #:	0
Well #:	Not Reported	Driller ID:	81-2014
Drill Method:	ROTARY	Other Method Info:	Not Reported
Construction Date:	14-OCT-21	Case Type:	PVC Plastic
Other Casing Info:	Not Reported	Case Diameter (in):	5.68
Case Depth (ft):	187	Screen Start Depth (ft):	0
Screen End Depth (ft):	0	Static Water Level (ft):	75
Flowing:	N	Test Drawdown Depth (ft):	75
Test Hours:	2	Test Rate:	12
Test Method:	AIR	Well Grouted:	Y
Pump Capacity (gpm):	10	Elevation (ft):	0
Specific Capacity:	0	Rock Top (ft):	185

14
North
1/2 - 1 Mile
Lower

MI WELLS **MI6000000344708**

WELLS:

Well ID:	38000007719	Permit #:	5012
Owner:	ROBERT ARNOLD	Well Depth (ft):	121
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	21-DEC-93
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	101
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	17	Flowing:	N
Test Drawdown Depth (ft):	18	Test Hours:	1
Test Rate:	20	Test Method:	UNK
Well Grouted:	Y	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	96		

15
SW
1/2 - 1 Mile
Higher

MI WELLS **MI6000000342694**

WELLS:

Well ID:	38000005071	Permit #:	9489
Owner:	Jim Comiskey	Well Depth (ft):	76
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	30-2091	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	13-JUN-01
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	47
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	26	Flowing:	N
Test Drawdown Depth (ft):	75	Test Hours:	1
Test Rate:	100	Test Method:	UNK

Well Grouted:	Y	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	30		

16
ESE **MI WELLS** **MI6000000344721**
1/2 - 1 Mile
Higher

WELLS:

Well ID:	38000007732	Permit #:	Not Reported
Owner:	GLYNN TROLZ	Well Depth (ft):	145
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0106	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	20-AUG-67
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	4	Case Depth (ft):	136
Screen Start Depth (ft):	136	Screen End Depth (ft):	145
Static Water Level (ft):	47	Flowing:	N
Test Drawdown Depth (ft):	52	Test Hours:	2
Test Rate:	16	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

17
SSW **MI WELLS** **MI6000000355275**
1/2 - 1 Mile
Higher

WELLS:

Well ID:	38000020564	Permit #:	3226
Owner:	STEPHEN CRAWFORD	Well Depth (ft):	97
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	23-APR-74
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	4	Case Depth (ft):	92
Screen Start Depth (ft):	92	Screen End Depth (ft):	97
Static Water Level (ft):	55	Flowing:	N
Test Drawdown Depth (ft):	66	Test Hours:	4
Test Rate:	30	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	19
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

18
South **MI WELLS** **MI6000000349714**
1/2 - 1 Mile
Higher

WELLS:

Well ID:	38000014858	Permit #:	20256
Owner:	GARY TROLZ GT RANCH LLC	Well Depth (ft):	162
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-2014	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	01-OCT-20
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5.68	Case Depth (ft):	142
Screen Start Depth (ft):	142	Screen End Depth (ft):	162
Static Water Level (ft):	76	Flowing:	N
Test Drawdown Depth (ft):	120	Test Hours:	2
Test Rate:	40	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

19
East
1/2 - 1 Mile
Higher

MI WELLS **MI6000000876278**

WELLS:

Well ID:	81000007748	Permit #:	Not Reported
Owner:	RANCH, G.T.	Well Depth (ft):	202
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0106	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	18-AUG-72
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	4	Case Depth (ft):	194
Screen Start Depth (ft):	194	Screen End Depth (ft):	202
Static Water Level (ft):	52	Flowing:	N
Test Drawdown Depth (ft):	67	Test Hours:	2
Test Rate:	20	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	0
Elevation (ft):	1025	Specific Capacity:	0
Rock Top (ft):	0		

20
WSW
1/2 - 1 Mile
Higher

MI WELLS **MI6000000342805**

WELLS:

Well ID:	38000005188	Permit #:	952 2
Owner:	JULIA JORDA	Well Depth (ft):	116
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	33-1686	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	28-SEP-01
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	110
Screen Start Depth (ft):	111	Screen End Depth (ft):	116
Static Water Level (ft):	57	Flowing:	N
Test Drawdown Depth (ft):	80	Test Hours:	0

Test Rate:	15	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

D21
ENE
1/2 - 1 Mile
Higher

MI WELLS **MI6000000886275**

WELLS:

Well ID:	81000019862	Permit #:	2012 00627
Owner:	TROLZ GLYNN ASSOC INC	Well Depth (ft):	204
Well Type:	Irrigation	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-2014	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	11-JAN-13
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5.68	Case Depth (ft):	189
Screen Start Depth (ft):	189	Screen End Depth (ft):	204
Static Water Level (ft):	100	Flowing:	N
Test Drawdown Depth (ft):	204	Test Hours:	2
Test Rate:	80	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	25
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

D22
ENE
1/2 - 1 Mile
Higher

MI WELLS **MI6000000886274**

WELLS:

Well ID:	81000019861	Permit #:	2012 00628
Owner:	TROLZ GLYNN ASSOC INC	Well Depth (ft):	208
Well Type:	Irrigation	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-2014	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	11-JAN-13
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5.68	Case Depth (ft):	193
Screen Start Depth (ft):	193	Screen End Depth (ft):	208
Static Water Level (ft):	100	Flowing:	N
Test Drawdown Depth (ft):	208	Test Hours:	2
Test Rate:	80	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	25
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database	EDR ID Number
MI WELLS	**MI6000000346759**

23
SW
1/2 - 1 Mile
Lower

WELLS:

Well ID:	38000011051	Permit #:	15562
Owner:	National Star Mortgage	Well Depth (ft):	77
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-2014	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	23-MAY-08
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5.67	Case Depth (ft):	72
Screen Start Depth (ft):	72	Screen End Depth (ft):	77
Static Water Level (ft):	1	Flowing:	Y
Test Drawdown Depth (ft):	77	Test Hours:	2
Test Rate:	50	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

1
SW
1/4 - 1/2 Mile

OIL_GAS **MIOG13000038980**

OIL_GAS:

API #:	21075606610000	Well #:	3-23
Permit #:	60661	Completion Date:	0
Plug Date:	Not Reported	Well Type:	Location
Well Status:	Terminated Permit	Bore Type:	Oil and Gas Test
Slant:	V	Total Depth Drilled (ft):	0
True Vertical Depth (ft):	0	Kickoff Point of TVD:	0
Deepest Formation:	Not Reported	Formation Tops:	Not Reported
Field Name:	Not Reported	Production Formation:	Not Reported
Production Unit #:	Not Reported	Lease Name:	Everhart
Operator #:	6513	Company Name:	Zackson Resources Inc
Surface Owner:	EVERHART, TIMOTHY & KATHY	State Owned Land:	0
Federally Owned Land:	0	H2S Concentration:	0
Permit Date:	19-NOV-12		

A3
ESE
1/2 - 1 Mile

OIL_GAS **MIOG13000038160**

OIL_GAS:

API #:	21075194440100	Well #:	1
Permit #:	19444	Completion Date:	0
Plug Date:	Not Reported	Well Type:	Dry Hole
Well Status:	Plugging Approved	Bore Type:	Oil and Gas Test
Slant:	V	Total Depth Drilled (ft):	4700
True Vertical Depth (ft):	0	Kickoff Point of TVD:	0
Deepest Formation:	TREMPEALEAU	Formation Tops:	K
Field Name:	Not Reported	Production Formation:	Not Reported
Production Unit #:	Not Reported	Lease Name:	Watkins Farms Inc
Operator #:	3415	Company Name:	Taggart Co The
Surface Owner:	Not Reported	State Owned Land:	0
Federally Owned Land:	0	H2S Concentration:	0
Permit Date:	Not Reported		

A2
ESE
1/2 - 1 Mile

OIL_GAS **MIOG13000038159**

OIL_GAS:

API #:	21075194440000	Well #:	1
Permit #:	19444	Completion Date:	0
Plug Date:	Not Reported	Well Type:	Dry Hole
Well Status:	Plugging Approved	Bore Type:	Oil and Gas Test
Slant:	V	Total Depth Drilled (ft):	4700
True Vertical Depth (ft):	0	Kickoff Point of TVD:	0
Deepest Formation:	TREMPEALEAU	Formation Tops:	K
Field Name:	Not Reported	Production Formation:	Not Reported
Production Unit #:	Not Reported	Lease Name:	Watkins Farms Inc
Operator #:	3415	Company Name:	Taggart Co The

Surface Owner:	Not Reported	State Owned Land:	0
Federally Owned Land:	0	H2S Concentration:	0
Permit Date:	14-JAN-55		

4
NE **OIL_GAS** **MIOG13000038974**
1/2 - 1 Mile

OIL_GAS:

API #:	21075606270000	Well #:	1-13
Permit #:	60627	Completion Date:	0
Plug Date:	Not Reported	Well Type:	Location
Well Status:	Terminated Permit	Bore Type:	Oil and Gas Test
Slant:	D	Total Depth Drilled (ft):	0
True Vertical Depth (ft):	0	Kickoff Point of TVD:	0
Deepest Formation:	Not Reported	Formation Tops:	Not Reported
Field Name:	Not Reported	Production Formation:	Not Reported
Production Unit #:	Not Reported	Lease Name:	Trolz
Operator #:	6513	Company Name:	Zackson Resources Inc
Surface Owner:	GLYNN TROLZ & ASSOCIATES, INC.		
State Owned Land:	0	Federally Owned Land:	0
H2S Concentration:	0	Permit Date:	03-OCT-12

5
SSE **OIL_GAS** **MIOG13000038427**
1/2 - 1 Mile

OIL_GAS:

API #:	21075236560000	Well #:	1
Permit #:	23656	Completion Date:	0
Plug Date:	Not Reported	Well Type:	Dry Hole
Well Status:	Plugging Approved	Bore Type:	Oil and Gas Test
Slant:	V	Total Depth Drilled (ft):	4650
True Vertical Depth (ft):	0	Kickoff Point of TVD:	0
Deepest Formation:	PRAIRIE DU CHIEN	Formation Tops:	K
Field Name:	Not Reported	Production Formation:	Not Reported
Production Unit #:	Not Reported	Lease Name:	Watkins, F C Farms, Inc
Operator #:	2223	Company Name:	Marathon Oil Company
Surface Owner:	Not Reported	State Owned Land:	0
Federally Owned Land:	0	H2S Concentration:	0
Permit Date:	18-OCT-61		

6
SSW **OIL_GAS** **MIOG13000038986**
1/2 - 1 Mile

OIL_GAS:

API #:	21075607720000	Well #:	2-23
Permit #:	60772	Completion Date:	0
Plug Date:	Not Reported	Well Type:	Location
Well Status:	Terminated Permit	Bore Type:	Oil and Gas Test
Slant:	D	Total Depth Drilled (ft):	0
True Vertical Depth (ft):	0	Kickoff Point of TVD:	0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Deepest Formation:	Not Reported	Formation Tops:	Not Reported
Field Name:	Not Reported	Production Formation:	Not Reported
Production Unit #:	Not Reported	Lease Name:	Babinski
Operator #:	6513	Company Name:	Zackson Resources Inc
Surface Owner:	BABINSKI, MARK & KIMBERLY	State Owned Land:	0
Federally Owned Land:	0	H2S Concentration:	0
Permit Date:	02-JUL-13		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: MI Radon

Radon Test Results

Zipcode	Test Date	LT Sign	Result
49230	2/18/1999		1.5
49230	4/10/2006		1.6
49230	10/23/2006		1.5
49230	6/27/2005		1.5
49230	1/8/2005		1.4
49230	11/4/1996		4.4
49230	3/23/1995		4.2
49230	11/13/2003		4.0
49230	10/28/1995		4.1
49230	3/29/2006		4.0
49230	11/13/2007		4.0
49230	2/23/2009		4.0
49230	3/18/2003		4.1
49230	2/7/2004		4.1
49230	5/9/1997		4.3
49230	2/6/2006		4.2
49230	6/7/2008		4.2
49230	11/29/2008		7.7
49230	2/17/2004		7.2
49230	4/21/1999		6.9
49230	12/10/2007		6.6
49230	4/8/1994		7.6
49230	5/2/1994		6.8
49230	3/7/2006		6.4
49230	2/10/2009		6.3
49230	1/30/2009		6.3
49230	3/26/2001		6.2
49230	4/8/1995		5.6
49230	9/15/2009		5.2
49230	4/28/1995		4.9
49230	5/9/1995		4.8
49230	12/26/1995		4.7
49230	4/20/2001		5.9
49230	3/10/2009		5.5
49230	4/4/1994		5.1
49230	1/6/2003		4.7
49230	2/3/1998		4.6
49230	5/3/1995		5.0
49230	11/22/2008		5.0
49230	4/22/2000		4.7
49230	5/11/2009		5.3
49230	8/4/2003		5.2
49230	1/26/2009		8.0
49230	4/25/2003		7.8
49230	6/3/2002		7.8
49230	11/29/2008		7.8
49230			

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

	2/10/2009		7.0
49230	1/15/2007		95.1
49230	12/2/2004		18.1
49230	5/9/2002		17.7
49230	3/20/1997		17.6
49230	2/5/2002		2.0
49230	4/20/1995		42.5
49230	8/28/1996		22.5
49230	3/27/2000		17.0
49230	5/6/2002		16.1
49230	2/13/2006		15.8
49230	2/27/2006		13.5
49230	7/2/2001		12.8
49230	4/4/2001		12.5
49230	12/18/2009		10.1
49230	11/17/2009		12.1
49230	6/3/2002		9.9
49230	4/25/1995		8.8
49230	7/3/1998		10.4
49230	3/16/1998		9.6
49230	3/9/1998		10.3
49230	10/26/1995		10.2
49230	5/9/1997		9.5
49230	2/7/2003		9.4
49230	3/20/2004		2.1
49230	6/3/2002		9.3
49230	4/8/1994		8.2
49230	3/20/1997		8.1
49230	4/18/2002		8.1
49230	4/12/1994		9.2
49230	11/25/1995		9.1
49230	7/6/1998		8.2
49230	2/4/2006		9.1
49230	5/6/2002		21.3
49230	5/6/2002		20.1
49230	12/17/2007		19.8
49230	10/26/2004		26.9
49230	2/2/2009		25.9
49230	2/2/2006		2.9
49230	11/3/2007		2.9
49230	3/11/2006		2.5
49230	10/27/2001		2.5
49230	3/3/2003		2.2
49230	1/27/2003		2.2
49230	3/1/1999		2.1
49230	11/7/2006		2.3
49230	4/14/2003		2.7
49230	3/19/2004		2.6
49230	3/3/2006		2.8
49230	2/1/1995		2.7
49230	11/8/1999		2.6
49230	2/26/1994		2.6
49230	9/14/2009		2.7
49230	2/9/2006		3.6
49230	4/19/1995		3.6
49230	4/21/1995	<	0.3
49230			

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

	7/31/2009		3.5
49230	5/7/2004		3.4
49230	4/11/2006		3.4
49230	11/13/2000	<	0.3
49230	3/6/2003		3.2
49230	1/13/2004		3.1
49230	1/29/2004		3.2
49230	5/24/2006		3.2
49230	6/10/2003		3.3
49230	4/21/2006		3.3
49230	3/2/2009		3.2
49230	11/12/2001		3.0
49230	3/1/2004		3.9
49230	2/5/2005		3.0
49230	2/3/2007		3.9
49230	1/26/2006		3.9
49230	1/14/2008		3.9
49230	4/14/2003		3.1
49230	2/20/1998		3.8
49230	3/29/1999		3.6
49230	11/6/2002		3.8
49230	3/3/2003		3.8
49230	3/3/2003		3.8
49230	4/6/1998		3.2
49230	1/21/1997		3.2
49230	11/3/2003		1.9
49230	10/24/2006		1.9
49230	4/20/2007		1.8
49230	2/16/1998		1.7
49230	5/7/2004		1.7
49230	2/16/2005		1.7
49230	9/13/2001	<	0.3
49230	11/1/1995		0.4
49230	2/13/2003	<	0.3
49230	3/17/1995		0.4
49230	9/10/2003	<	0.3
49230	9/6/2007	<	0.3
49230	2/28/2002	<	0.3
49230	9/8/2005	<	0.3
49230	6/27/1997	<	0.3
49230	4/4/2001		0.6
49230	5/4/2009		0.9
49230	3/27/2009		1.4
49230	6/27/1997		1.3
49230	5/12/1995		1.3
49230	2/8/2008		1.2
49230	3/17/2003		1.1
49230	12/5/2005		1.1
49230	11/1/2004		1.0
49230	2/20/1998		1.0
49230	2/16/2000		1.0
49230	4/4/1994		1.0
49230	10/23/2006		1.0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

Federal EPA Radon Zone for JACKSON County: 1

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 49230

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	Not Reported	Not Reported	Not Reported	Not Reported
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	4.550 pCi/L	50%	50%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Department of Natural Resources
Telephone: 517-241-2254

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Data
Source: Department of Environmental Quality
Telephone: 517-335-9218
The data in this file was obtained from Wellogic, the Michigan Department of Environmental Quality Statewide Groundwater Database (SGWD). Wellogic contains approximately 425,000 water well records found within the State of Michigan, and although it represents the best available data, it cannot be considered a complete database of all the wells or well records in existence. Locations of verified municipal and private water well sites compiled from Michigan Department of Public Health, Water Well and Pump Records. Available in the following MI counties: Calhoun, Eaton, Genesee, Ingham, Jackson, Kalamazoo, Kent, Midland, Muskegon, Oakland, Ottawaw, Saginaw, St. Clair, Washtenaw.

OTHER STATE DATABASE INFORMATION

Michigan Oil and Gas Wells
Source: Department of Environmental Quality
Telephone: 517-241-1528
Locations of oil and gas wells are compiled from permit records on file at the Geological Survey Division (GSD), Michigan Department of Natural Resources.

RADON

State Database: MI Radon
Source: Department of Environmental Quality
Telephone: 517-335-9551
Radon Test Results

Michigan Radon Test Results
Source: Department of Environmental Quality
Telephone: 517-335-8037
These results are from test kits distributed by the local health departments and used by Michigan residents. There is no way of knowing whether the devices were used properly, whether there are duplicates (or repeat verification) test (i.e., more than one sample per home), etc.

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

STREET AND ADDRESS INFORMATION

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Middle East Portions
14760 Hornung Road
Manchester, MI 48158

Inquiry Number: 7877194.2s
January 22, 2025

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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GEOCHECK ADDENDUM

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

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E1527 - 21), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E2247 - 16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E1528 - 22) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

14760 HORNUNG ROAD
MANCHESTER, MI 48158

COORDINATES

Latitude (North):	42.1237010 - 42° 7' 25.32''
Longitude (West):	84.1303270 - 84° 7' 49.17''
Universal Tranverse Mercator:	Zone 16
UTM X (Meters):	737215.3
UTM Y (Meters):	4667283.5
Elevation:	1031 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	14450260 ONSTED, MI
Version Date:	2019
Northeast Map:	14450238 MANCHESTER, MI
Version Date:	2019
Southeast Map:	14450292 TIPTON, MI
Version Date:	2019
Northwest Map:	14450254 NORVELL, MI
Version Date:	2019

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20200701
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
14760 HORNUNG ROAD
MANCHESTER, MI 48158

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	AMERIGAS PROPANE	7757 E TOLEDO RD	AST	Lower	1 ft.
A2	TROLZ FARM	14950 HORNING RD	RCRA NonGen / NLR, FINDS, ECHO	Lower	35, 0.007, SSW
A3	GLYNN TROLZ & ASSOCI	14950 HORNING RD	UST FINDER RELEASE	Lower	35, 0.007, SSW
A4	GT RANCH LLC	14950 HORNING RD	UST FINDER	Lower	35, 0.007, SSW
A5	GT RANCH LLC	14950 HORNING RD	LUST, UST, WDS	Lower	35, 0.007, SSW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

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

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

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

Lists of Federal Delisted NPL sites

Delisted NPL ---------- National Priority List Deletions

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS ---------- Corrective Action Report

Lists of Federal RCRA TSD facilities

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

Lists of Federal RCRA generators

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-VSQG ---------- RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System

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

Federal ERNS list

ERNS ..... Emergency Response Notification System

Lists of state- and tribal hazardous waste facilities

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

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF ..... Solid Waste Facilities Database

Lists of state and tribal leaking storage tanks

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

Lists of state and tribal registered storage tanks

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

State and tribal institutional control / engineering control registries

AUL ..... Engineering and Institutional Controls

Lists of state and tribal voluntary cleanup sites

INDIAN VCP ..... Voluntary Cleanup Priority Listing

Lists of state and tribal brownfield sites

BROWNFIELDS ..... Brownfields and UST Site Database

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

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

Local Lists of Landfill / Solid Waste Disposal Sites

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

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ..... Delisted National Clandestine Laboratory Register

INVENTORY	Inventory of Facilities
PART 201	Part 201 Site List
CDL	Clandestine Drug Lab Listing
DEL PART 201	Delisted List of Contaminated Sites
US CDL	National Clandestine Laboratory Register

Local Land Records

LIENS	Lien List
LIENS 2	CERCLA Lien Information

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
SPILLS	Pollution Emergency Alerting System

Other Ascertainable Records

FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
MINES MRDS	Mineral Resources Data System
ABANDONED MINES	Abandoned Mines
FINDS	Facility Index System/Facility Registry System
DOCKET HWC	Hazardous Waste Compliance Docket Listing
ECHO	Enforcement & Compliance History Information
UXO	Unexploded Ordnance Sites

FUELS PROGRAM	EPA Fuels Program Registered Listing
PFAS NPL	Superfund Sites with PFAS Detections Information
PFAS FEDERAL SITES	Federal Sites PFAS Information
PFAS TRIS	List of PFAS Added to the TRI
PFAS TSCA	PFAS Manufacture and Imports Information
PFAS RCRA MANIFEST	PFAS Transfers Identified In the RCRA Database Listing
PFAS ATSDR	PFAS Contamination Site Location Listing
PFAS WQP	Ambient Environmental Sampling for PFAS
PFAS NPDES	Clean Water Act Discharge Monitoring Information
PFAS PROJECT	NORTHEASTERN UNIVERSITY PFAS PROJECT
PFAS ECHO	Facilities in Industries that May Be Handling PFAS Listing
PFAS ECHO FIRE TRAIN	Facilities in Industries that May Be Handling PFAS Listing
PFAS PT 139 AIRPORT	All Certified Part 139 Airports PFAS Information Listing
AQUEOUS FOAM NRC	Aqueous Foam Related Incidents Listing
BIOSOLIDS	ICIS-NPDES Biosolids Facility Data
E MANIFEST	Hazardous Waste Electronic Manifest System
PFAS	PFAS Contaminated Sites Listing
AQUEOUS FOAM	Aqueous Film Forma Foam Listing
AIRS	Permit and Emissions Inventory Data
ASBESTOS	ASBESTOS
BEA	Baseline Environmental Assessment Database
COAL ASH	Coal Ash Disposal Sites
DRYCLEANERS	Drycleaning Establishments
Financial Assurance	Financial Assurance Information Listing
LEAD	Lead Information Registry Listing
LEAD	Lead Information Registry Listing
MANIFEST	Hazardous Waste Manifest Data
NPDES	List of Active NPDES Permits
UIC	Underground Injection Wells Database
WDS	Waste Data System
ENVIRO	Michigan Enviro Information
SSCUP	State Owned Sites Cleanup Program List

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto	EDR Exclusive Historical Auto Stations
EDR Hist Cleaner	EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA PART 201	Recovered Government Archive State Hazardous Waste Facilities List
RGA LF	Recovered Government Archive Solid Waste Facilities List
RGA LUST	Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

EXECUTIVE SUMMARY

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

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

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

STANDARD ENVIRONMENTAL RECORDS

Lists of state and tribal leaking storage tanks

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

A review of the LUST list, as provided by EDR, and dated 08/01/2024 has revealed that there is 1 LUST site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
GT RANCH LLC	***14950 HORNING RD***	***SSW 0 - 1/8 (0.007 mi.)***	***A5***	***13***
Release Status: Closed Substance Release: Diesel Facility Id: 12122 Facility Id: 00012122				

Lists of state and tribal registered storage tanks

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

A review of the UST list, as provided by EDR, has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
GT RANCH LLC	***14950 HORNING RD***	***SSW 0 - 1/8 (0.007 mi.)***	***A5***	***13***
Database: UST, Date of Government Version: 07/24/2024 Tank Status: Removed from Ground Facility Type: CLOSED Facility Id: 00012122				

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

A review of the AST list, as provided by EDR, and dated 08/01/2024 has revealed that there is 1 AST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
AMERIGAS PROPANE Facility Id: 92046003 Removed/Closed Date: 04/10/2013 Tank Status: Removed from Premises	7757 E TOLEDO RD	0 - 1/8 (0.000 mi.)	A1	8

ADDITIONAL ENVIRONMENTAL RECORDS

Other Ascertainable Records

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

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 09/16/2024 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
TROLZ FARM EPA ID:: MIR000039875	***14950 HORNING RD***	***SSW 0 - 1/8 (0.007 mi.)***	***A2***	***8***

UST FINDER: EPA developed UST Finder, a web map application containing a comprehensive, state-sourced national map of underground storage tank (UST) and leaking UST (LUST) data. It provides the attributes and locations of active and closed USTs, UST facilities, and LUST sites from states and from Tribal lands and US territories . UST Finder contains information about proximity of UST facilities and LUST sites to: surface and groundwater public drinking water protection areas; estimated number of private domestic wells and number of people living nearby; and flooding and wildfires.

A review of the UST FINDER list, as provided by EDR, and dated 06/08/2023 has revealed that there is 1 UST FINDER site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
GT RANCH LLC	14950 HORNING RD	SSW 0 - 1/8 (0.007 mi.)	A4	12

UST FINDER RELEASE: US EPA's UST Finder data is a national composite of leaking underground storage tanks. This data contains information about, and locations of, leaking underground storage tanks. Data was collected from state sources and standardized into a national profile by EPA's Office of Underground Storage Tanks, Office of Research and Development, and the Association of State and Territorial Solid Waste Management Officials.

A review of the UST FINDER RELEASE list, as provided by EDR, and dated 06/08/2023 has revealed that

there is 1 UST FINDER RELEASE site within approximately 0.5 miles of the target property.

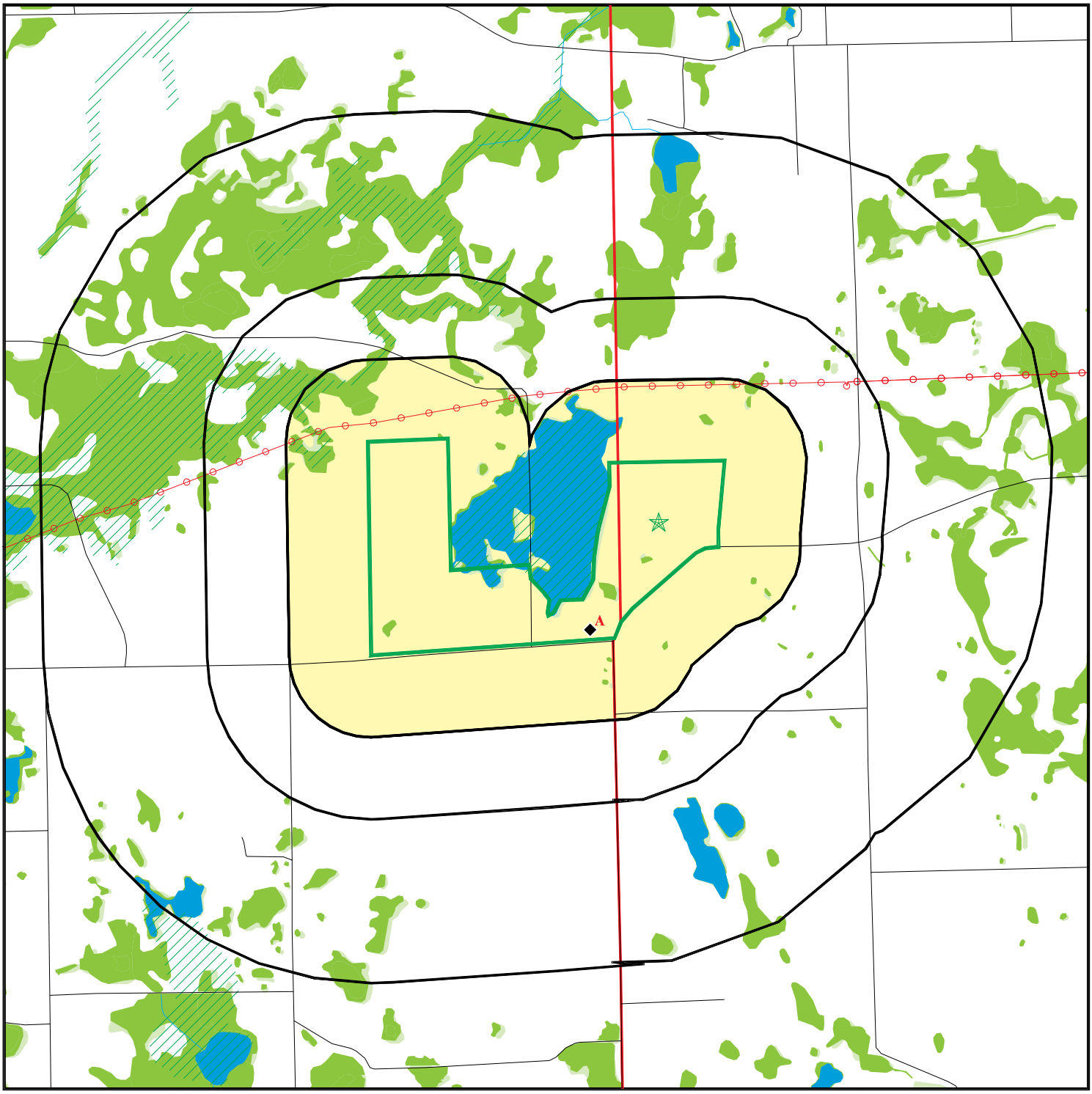
Lower Elevation	Address	Direction / Distance	Map ID	Page
GLYNN TROLZ & ASSOCI	14950 HORNING RD	SSW 0 - 1/8 (0.007 mi.)	A3	11

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 1 records.

Site Name	Database(s)
GORMLEY BARTLETT LANDFILL	ODI

OVERVIEW MAP - 7877194.2S



Target Property
Sites at elevations higher than or equal to the target property
Sites at elevations lower than the target property
Manufactured Gas Plants
National Priority List Sites
Dept. Defense Sites

0 1/4 1/2 1 Miles

Indian Reservations BIA
County Boundary
Power transmission lines
Special Flood Hazard Area (1%)
0.2% Annual Chance Flood Hazard
National Wetland Inventory
State Wetlands

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

SITE NAME: Middle East Portions ADDRESS: 14760 Hornung Road Manchester MI 48158 LAT/LONG: 42.123701 / 84.130327	CLIENT: Applied Science & Technology CONTACT: Bailey Bishop INQUIRY #: 7877194.2s DATE: January 22, 2025 3:16 pm

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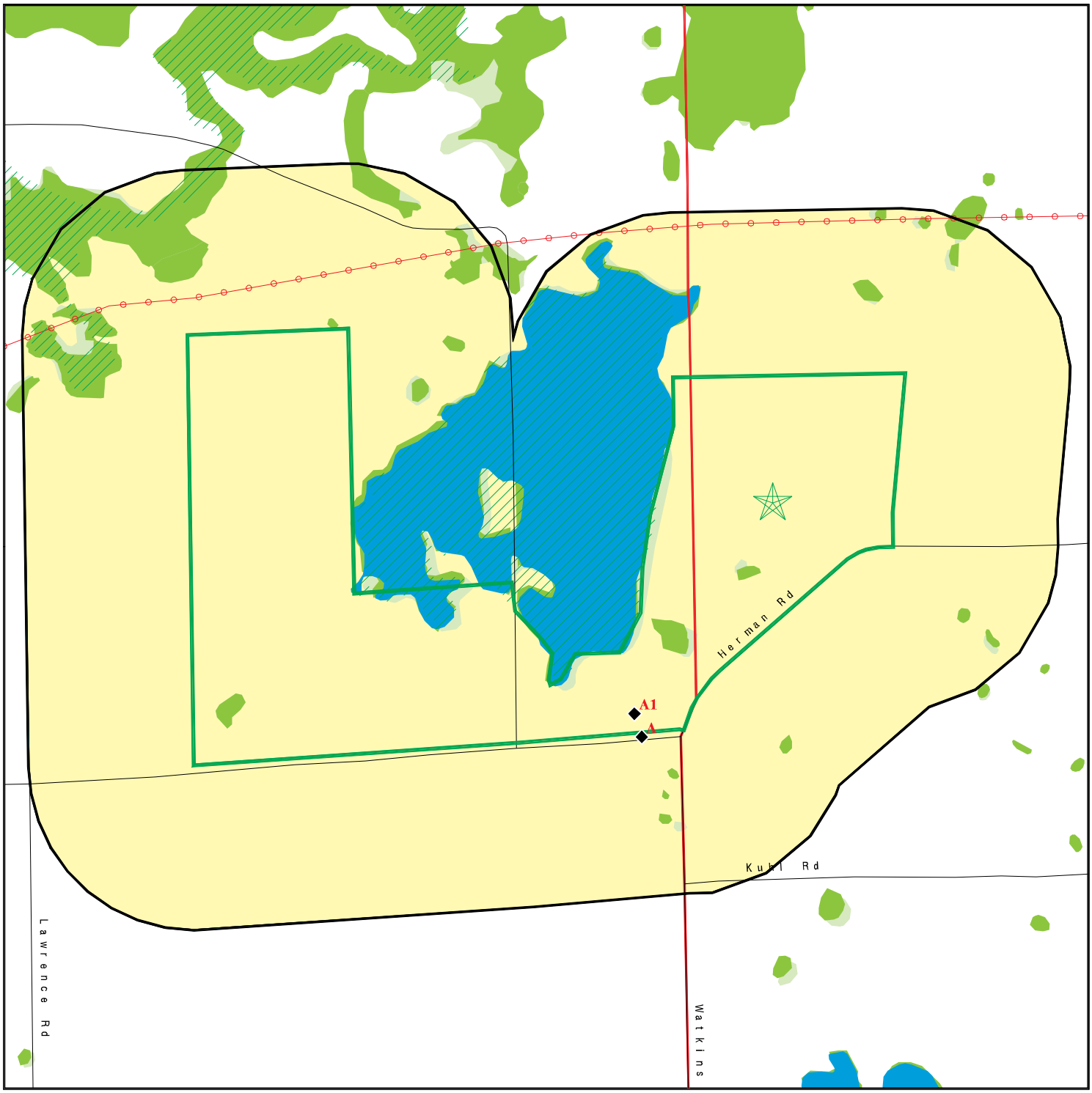
DETAIL MAP - 7877194.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites

0 1/8 1/4 1/2 Miles

- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands

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

SITE NAME: Middle East Portions ADDRESS: 14760 Hornung Road Manchester MI 48158 LAT/LONG: 42.123701 / 84.130327	CLIENT: Applied Science & Technology CONTACT: Bailey Bishop INQUIRY #: 7877194.2s DATE: January 22, 2025 3:17 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Lists of Federal NPL (Superfund) sites								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Lists of Federal Delisted NPL sites								
Delisted NPL	1.000		0	0	0	0	NR	0
Lists of Federal sites subject to CERCLA removals and CERCLA orders								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Lists of Federal CERCLA sites with NFRAP								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA facilities undergoing Corrective Action								
CORRACTS	1.000		0	0	0	0	NR	0
Lists of Federal RCRA TSD facilities								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA generators								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
Lists of state- and tribal hazardous waste facilities								
SHWS	1.000		0	0	0	0	NR	0
Lists of state and tribal landfills and solid waste disposal facilities								
SWF/LF	0.500		0	0	0	NR	NR	0
Lists of state and tribal leaking storage tanks								
LUST	0.500		1	0	0	NR	NR	1

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
Lists of state and tribal registered storage tanks								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		1	0	NR	NR	NR	1
AST	0.250		1	0	NR	NR	NR	1
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
AUL	0.500		0	0	0	NR	NR	0
Lists of state and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
Lists of state and tribal brownfield sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
HIST LF	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
INVENTORY	0.500		0	0	0	NR	NR	0
PART 201	1.000		0	0	0	0	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
DEL PART 201	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
SPILLS	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		1	0	NR	NR	NR	1

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
MINES MRDS	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
PFAS NPL	0.250		0	0	NR	NR	NR	0
PFAS FEDERAL SITES	0.250		0	0	NR	NR	NR	0
PFAS TRIS	0.250		0	0	NR	NR	NR	0
PFAS TSCA	0.250		0	0	NR	NR	NR	0
PFAS RCRA MANIFEST	0.250		0	0	NR	NR	NR	0
PFAS ATSDR	0.250		0	0	NR	NR	NR	0
PFAS WQP	0.250		0	0	NR	NR	NR	0
PFAS NPDES	0.250		0	0	NR	NR	NR	0
PFAS PROJECT	0.250		0	0	NR	NR	NR	0
PFAS ECHO	0.250		0	0	NR	NR	NR	0
PFAS ECHO FIRE TRAIN	0.250		0	0	NR	NR	NR	0
PFAS PT 139 AIRPORT	0.250		0	0	NR	NR	NR	0
AQUEOUS FOAM NRC	0.250		0	0	NR	NR	NR	0
BIOSOLIDS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST FINDER	0.250		1	0	NR	NR	NR	1
UST FINDER RELEASE	0.500		1	0	0	NR	NR	1
E MANIFEST	0.250		0	0	NR	NR	NR	0
PFAS	0.250		0	0	NR	NR	NR	0
AQUEOUS FOAM	0.250		0	0	NR	NR	NR	0
AIRS	0.001		0	NR	NR	NR	NR	0
ASBESTOS	0.001		0	NR	NR	NR	NR	0
BEA	0.500		0	0	0	NR	NR	0
COAL ASH	0.500		0	0	0	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
LEAD	0.001		0	NR	NR	NR	NR	0
LEAD	0.001		0	NR	NR	NR	NR	0
MANIFEST	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
ENVIRO	0.001		0	NR	NR	NR	NR	0
SSCUP	0.500		0	0	0	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA PART 201	0.001		0	NR	NR	NR	NR	0
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	6	0	0	0	0	6

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **AMERIGAS PROPANE** **AST** **A100002205**
7757 E TOLEDO RD **N/A**
< 1/8 **BLISSFIELD, MI 49228**
1 ft.

Site 1 of 5 in cluster A

Relative: AST:
Lower

Actual: Name:	AMERIGAS PROPANE
1002 ft. Address:	7757 E TOLEDO RD
City:	BLISSFIELD
Zip:	49228
Facility ID:	92046003
Owner Name:	AMERIGAS PROPANE
Owner Address:	PO BOX 965
Owner City,St,Zip:	VALLEY FERGE, PA 19482
District:	2
Date of Collection:	10/21/2003
Accuracy:	10 METERS
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Description Category:	Plant Entrance (Freight)
Method of Collection:	GPS Code Meas. Standard Positioning Service SA Off
Horizontal Datum:	NAD83
Latitude:	42.1190180
Longitude:	-84.134401
Tank Id:	ATK-060305-15
Tank Status:	Removed from Premises
Capacity (in gallons):	18000
Installation Date:	03/28/1979
Substance Stored:	Other
Removed/Closed Date:	04/10/2013
Tank Id:	ATK-026648-15
Tank Status:	Removed from Premises
Capacity (in gallons):	8000
Installation Date:	03/28/1979
Substance Stored:	Other
Removed/Closed Date:	04/10/2013
Tank Id:	ATK-015711-15
Tank Status:	Removed from Premises
Capacity (in gallons):	30000
Installation Date:	03/28/1979
Substance Stored:	Other
Removed/Closed Date:	04/10/2013

A2 **TROLZ FARM** **RCRA NonGen / NLR** **1001488180**
SSW **14950 HORNING RD** **FINDS** **MIR000039875**
< 1/8 **BROOKLYN, MI 49230** **ECHO**
0.007 mi.
35 ft.

Site 2 of 5 in cluster A

Relative: RCRA Listings:
Lower

Actual: Date Form Received by Agency:	20010314
1011 ft. Handler Name:	Trolz Farm
Handler Address:	14950 Horning Rd
Handler City,State,Zip:	BROOKLYN, MI 49230

TROLZ FARM (Continued) **1001488180**

EPA ID:	MIR000039875
Contact Name:	FRANK MALEWITZ
Contact Address:	14950 HORNING RD
Contact City,State,Zip:	BROOKLYN, MI 49230
Contact Telephone:	517-764-0700
Contact Fax:	Not reported
Contact Email:	Not reported
Contact Title:	Not reported
EPA Region:	05
Land Type:	Private
Federal Waste Generator Description:	Not a generator, verified
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Not reported
State District Owner:	Not reported
State District:	Not reported
Mailing Address:	PO BOX 249
Mailing City,State,Zip:	JACKSON, MI 49204
Owner Name:	Trolz Glynn And Associates Inc
Owner Type:	Private
Operator Name:	Trolz Glynn And Associates Inc
Operator Type:	Private
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20110303
Recognized Trader-Importer:	No

TROLZ FARM (Continued) **1001488180**

Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Hazardous Waste Summary:

Waste Code:	D001
Waste Description:	Ignitable Waste

Handler - Owner Operator:

Owner/Operator Indicator:	Operator
Owner/Operator Name:	TROLZ GLYNN AND ASSOCIATES INC
Legal Status:	Private
Date Became Current:	20010314
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name:	TROLZ GLYNN AND ASSOCIATES INC
Legal Status:	Private
Date Became Current:	20010314
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	20010314
Handler Name: TROLZ FARM	
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

List of NAICS Codes and Descriptions:

NAICS Code:	11131
NAICS Description:	ORANGE GROVES

TROLZ FARM (Continued) **1001488180**

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

FINDS:
Registry ID: 110003710324

Click Here for FRS Facility Detail Report:

Environmental Interest/Information System:
The Resource Conservation and Recovery Act Information System (RCRAInfo) is EPA's comprehensive information system in support of the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. It tracks many types of information about generators, transporters, treaters, storers, and disposers of hazardous waste.

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

ECHO:
Envid: 1001488180
Registry ID: 110003710324

DFR URL:
Name: TROLZ FARM
Address: 14950 HORNING RD
City,State,Zip: BROOKLYN, MI 49230

A3 **GLYNN TROLZ & ASSOCIATES INC** **UST FINDER RELEASE** **1029028803**
SSW **14950 HORNING RD** **N/A**
< 1/8 **BROOKLYN, MI 49204**
0.007 mi.
35 ft. **Site 3 of 5 in cluster A**

Relative:
Lower

Actual:
1011 ft.

UST FINDER RELEASE:
Object ID: 516414
Facility ID: MI00012122
Lust ID: MIC-0119-98
Name: GLYNN TROLZ & ASSOCIATES INC
Address: 14950 HORNING RD
City,State,Zip: BROOKLYN, MI 49204
Address Match Type: Not reported
Reported Date: 1998/02/16 15:59:59+00
Status: No Further Action
Substance: Diesel
Population within 1500ft: 1269
Domestic Wells within 1500ft: 1
Land Use: Developed, High Intensity
Within SPA: No
SPA PWS Facility ID: Not reported
SPA Water Type: Not reported
SPA Facility Type: Not reported
SPA HUC12: Not reported

GLYNN TROLZ & ASSOCIATES INC (Continued) **1029028803**

Within WHPA:	Yes
WHPA PWS Facility ID:	MI0003470_1664
WHPA Water Type:	GW - Ground water
WHPA Facility Type:	WL - Well
WHPA HUC12:	040500040105
Within 100yr Floodplain:	No
Tribe:	Not reported
EPA Region:	5
NFA Letter 1:	Not reported
NFA Letter 2:	Not reported
NFA Letter 3:	Not reported
NFA Letter 4:	Not reported
Closed With Residual Contaminate:	Not reported
Coordinate Source:	State
X Coord:	-84.40412
Y Coord:	42.2278200000001
Latitude:	42.22782
Longitude:	-84.40412

A4 **GT RANCH LLC** **UST FINDER** **1028423213**
SSW **14950 HORNING RD** **N/A**
< 1/8 **BROOKLYN, MI**
0.007 mi.
35 ft. **Site 4 of 5 in cluster A**

Relative: **Lower**

Actual: **1011 ft.**

UST FINDER:

Object ID:	206909
Facility ID:	MI12122
Name:	GT RANCH LLC
Address:	14950 HORNING RD
City,State,Zip:	BROOKLYN, MI
Address Match Type:	StreetAddress
Open USTs:	0
Closed USTs:	2
TOS USTs:	0
Population 1500ft:	6
Private Wells 1500ft:	3
Within 100yr Floodplain:	No
Land Use:	Non-Developed
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported
SPA HUC12:	Not reported
Within WHPA:	No
WHPA PWS Facility ID:	Not reported
WHPA Water Type:	Not reported
WHPA Facility Type:	Not reported
WHPA HUC12:	Not reported
Facility Status:	Closed UST(s)
Date of Last Inspection:	Not reported
EPA Region:	5
Tribe:	Not reported
Coordinate Source:	Geocode
X Coord:	-84.13352221
Y Coord:	42.1185741100001
Latitude:	42.11857411
Longitude:	-84.13352221

GT RANCH LLC (Continued) **1028423213**

UST FINDER:

Object ID:	779916
Facility ID:	MI12122
Tank ID:	MIUTK-082342-15
Tank Status:	Closed
Installation Date:	1988/04/01 16:00:00+00
Removal Date:	2015/04/14 15:59:59+00
Tank Capacity:	7200
Substances:	Gasoline,
Tank Wall Type:	Not reported

Object ID:	796202
Facility ID:	MI12122
Tank ID:	MIUTK-082338-15
Tank Status:	Closed
Installation Date:	1978/05/07 16:00:00+00
Removal Date:	1998/02/09 15:59:59+00
Tank Capacity:	3000
Substances:	Diesel,
Tank Wall Type:	Not reported

A5 **GT RANCH LLC** **LUST U003102882**
SSW **14950 HORNING RD** **UST N/A**
< 1/8 **BROOKLYN, MI 49230** **WDS**
0.007 mi.
35 ft. **Site 5 of 5 in cluster A**

Relative:
Lower

Actual:
1011 ft.

LUST:

Name:	GT RANCH LLC
Address:	14950 HORNING RD
City,State,Zip:	BROOKLYN, MI 49230
Facility ID:	12122
Source:	Not reported
Owner Name:	Angeli, Rick
Owner Address:	Not reported
Owner City,St,Zip:	Not reported
Owner Contact:	Not reported
Owner Phone:	Not reported
Country:	Not reported
District:	Jackson
Site Name:	Glynn Trolz & Associates Inc
Latitude:	42.22782
Longitude:	-84.40412
Date of Collection:	Not reported
Method of Collection:	The geographic coordinate determination method based on GPS code measurements (pseudo range) standard positioning service (SA Off).
Accuracy:	10
Accuracy Value Unit:	Not reported
Horizontal Data:	North American Datum of 1983
Point Line Area:	Not reported
Desc Category:	Not reported
Regulatory Program:	Not reported
Risk Condition:	Not reported
Project Manager:	Not reported
Senate District:	Not reported
House District:	Not reported

GT RANCH LLC (Continued) **U003102882**

US Congressional District: Not reported

Leak Number: 28555
Release Date: 02/16/1998
Substance Released: Not reported
Release Status: Closed
Release Closed Date: 05/11/1998

Leak Number: C-0119-98
Release Date: 02/16/1998
Substance Released: Diesel
Release Status: Closed
Release Closed Date: 05/11/1998

UST:
Name: GT RANCH LLC
Address: 14950 HORNING RD
City,State,Zip: BROOKLYN 49230-9545
Facility Type: CLOSED
Facility ID: 00012122
Owner Name: GT RANCH LLC
Owner Address: PO BOX 249
Owner City: JACKSON
Owner State: MI
Owner Zip: 49204
Owner Contact: Not reported
Owner Phone: 5177640700
Contact: Mr Gary Trolz
Contact Phone: (517) 764-0700
Date of Collection: 10/21/2003
Accuracy: 10
Horizontal Datum: NAD83
Accuracy Value Unit: METERS
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: GPS Code Meas. Standard Positioning Service SA Off
District: Region 2 - Jackson District Office
Tank ID: 2
Capacity: 7200
Tank Status: Removed from Ground
Substance: Gasoline
Install Date: 04/01/1988
Remove Date: 04/14/2015
Tank Number: Not reported
Tank Details Compartments: Not reported
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Not reported
Piping Type: Not reported
Tank Construction: Not reported
Impressed Device: Not reported
Latitude: 42.22782
Longitude: -84.40412

Name: GT RANCH LLC
Address: 14950 HORNING RD
City,State,Zip: BROOKLYN 49230-9545

GT RANCH LLC (Continued) **U003102882**

Facility Type:	CLOSED
Facility ID:	00012122
Owner Name:	GT RANCH LLC
Owner Address:	PO BOX 249
Owner City:	JACKSON
Owner State:	MI
Owner Zip:	49204
Owner Contact:	Not reported
Owner Phone:	5177640700
Contact:	Mr Gary Trolz
Contact Phone:	(517) 764-0700
Date of Collection:	10/21/2003
Accuracy:	10
Horizontal Datum:	NAD83
Accuracy Value Unit:	METERS
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	GPS Code Meas. Standard Positioning Service SA Off
District:	Region 2 - Jackson District Office
Tank ID:	1
Capacity:	3000
Tank Status:	Removed from Ground
Substance:	Diesel
Install Date:	05/07/1978
Remove Date:	02/09/1998
Tank Number:	Not reported
Tank Details Compartments:	Not reported
Tank Release Detection:	Not reported
Pipe Release Detection:	Not reported
Piping Material:	Not reported
Piping Type:	Not reported
Tank Construction:	Not reported
Impressed Device:	Not reported
Latitude:	42.22782
Longitude:	-84.40412

WDS:

Name:	TROLZ FARM
Address:	14950 HORNING RD
City,State,Zip:	BROOKLYN, MI 49230
Site Id:	MIR000039875
WMD Id:	413137
Site Specific Name:	TROLZ FARM
Mailing Address:	PO BOX 249
Mailing City/State/Zip:	49204
Mailing County:	JACKSON

Count: 1 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BROOKLYN	1007444596	GORMLEY BARTLETT LANDFILL	ON CASE RD 1/2 MI E OF HORNING		ODI

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: EPA
Telephone: N/A
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 10
Telephone 206-553-8665

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: EPA
Telephone: N/A
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Lists of Federal Delisted NPL sites

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: EPA
Telephone: N/A
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Quarterly

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/20/2024
Date Data Arrived at EDR: 12/18/2024
Date Made Active in Reports: 12/20/2024
Number of Days to Update: 2

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 12/18/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Quarterly

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The 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 potential NPL site.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Quarterly

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

Lists of Federal RCRA TSD facilities

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

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

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

Lists of Federal RCRA generators

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

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

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 07/15/2024
Date Data Arrived at EDR: 07/17/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 84

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/13/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 07/24/2024
Date Data Arrived at EDR: 08/08/2024
Date Made Active in Reports: 08/15/2024
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/15/2024
Next Scheduled EDR Contact: 12/02/2024
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 07/24/2024
Date Data Arrived at EDR: 08/08/2024
Date Made Active in Reports: 08/15/2024
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/15/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/11/2024
Date Data Arrived at EDR: 06/17/2024
Date Made Active in Reports: 09/04/2024
Number of Days to Update: 79

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/11/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

Lists of state- and tribal hazardous waste facilities

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

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

Date of Government Version: N/A
Date Data Arrived at EDR: 10/31/2013
Date Made Active in Reports: 11/20/2013
Number of Days to Update: 20

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-284-5103
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: No Update Planned

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF: Solid Waste Facilities Database

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 11/27/2024
Number of Days to Update: 71

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-335-4035
Last EDR Contact: 12/11/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Semi-Annually

Lists of state and tribal leaking storage tanks

LUST: Leaking Underground Storage Tank Sites

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 08/01/2024
Date Data Arrived at EDR: 08/07/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 77

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-9837
Last EDR Contact: 10/30/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/11/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

Lists of state and tribal registered storage tanks

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 08/12/2024
Date Data Arrived at EDR: 10/30/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 76

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

UST 2: Underground Storage Tank Listing
A listing of underground storage tank site locations that have unknown owner information.

Date of Government Version: 01/08/2024
Date Data Arrived at EDR: 01/18/2024
Date Made Active in Reports: 04/09/2024
Number of Days to Update: 82

Source: Department of Licensing & Regulatory Affairs
Telephone: 517-373-1820
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

UST: Underground Storage Tank Facility List
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 07/24/2024
Date Data Arrived at EDR: 08/06/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 78

Source: Department of Licensing & Regulatory Affairs
Telephone: 517-373-1820
Last EDR Contact: 11/06/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Annually

AST: Aboveground Tanks
Registered Aboveground Storage Tanks.

Date of Government Version: 08/01/2024
Date Data Arrived at EDR: 08/07/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 77

Source: Department of Licensing & Regulatory Affairs
Telephone: 517-373-1820
Last EDR Contact: 10/30/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: No Update Planned

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/11/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 07/29/2024
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

AUL: Engineering and Institutional Controls
A listing of sites with institutional and/or engineering controls in place.

Date of Government Version: 08/20/2024
Date Data Arrived at EDR: 08/20/2024
Date Made Active in Reports: 08/21/2024
Number of Days to Update: 1

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-4828
Last EDR Contact: 11/13/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Quarterly

Lists of state and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/10/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 07/08/2021
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

Lists of state and tribal brownfield sites

BROWNFIELDS: Brownfields and USTfield Site Database
All state funded Part 201 and 213 sites, as well as LUST sites that have been redeveloped by private entities using the BEA process. Be aware that this is not a list of all of the potential brownfield sites in Michigan.

Date of Government Version: 09/24/2024
Date Data Arrived at EDR: 10/17/2024
Date Made Active in Reports: 01/06/2025
Number of Days to Update: 81

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-4805
Last EDR Contact: 01/14/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

BROWNFIELDS 2: Brownfields Building and Land Site Locations
A listing of brownfield building and land site locations. The listing is a collaborative effort of Michigan Economic Development Corporation, Michigan Economic Developers Association, Detrot Edison, Detroit Area Commercial Board of Realtors

Date of Government Version: 10/15/2024
Date Data Arrived at EDR: 10/22/2024
Date Made Active in Reports: 01/09/2025
Number of Days to Update: 79

Source: Economic Development Corporation
Telephone: 888-522-0103
Last EDR Contact: 01/13/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
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 takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 09/09/2024
Date Data Arrived at EDR: 09/11/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/24/2025
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

HIST LF: Inactive Solid Waste Facilities
The database contains historical information and is no longer updated.

Date of Government Version: 03/01/1997
Date Data Arrived at EDR: 02/28/2003
Date Made Active in Reports: 03/06/2003
Number of Days to Update: 6

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-335-4034
Last EDR Contact: 02/28/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWRCY: Recycling Facilities
A listing of recycling center locations.

Date of Government Version: 06/14/2024
Date Data Arrived at EDR: 06/14/2024
Date Made Active in Reports: 09/06/2024
Number of Days to Update: 84

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-241-5719
Last EDR Contact: 12/10/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 05/05/2025
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 02/07/2024
Date Data Arrived at EDR: 11/13/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 6

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 12/09/2024
Next Scheduled EDR Contact: 05/05/2025
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 05/20/2024
Date Data Arrived at EDR: 08/19/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 51

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: No Update Planned

PART 201: Part 201 Site List

A Part 201 Listed site is a location that has been evaluated and scored by the DEQ using the Part 201 scoring model. The location is or includes a "facility" as defined by Part 201, where there has been a release of a hazardous substance(s) in excess of the Part 201 residential criteria, and/or where corrective actions have not been completed under Part 201 to meet the applicable cleanup criteria for unrestricted residential use. The Part 201 List does not include all of the sites of contamination that are subject to regulation under Part 201 because owners are not required to inform the DEQ about the sites and can pursue cleanup independently. Sites of environmental contamination that are not known to DEQ are not on the list, nor are sites with releases that resulted in low environmental impact.

Date of Government Version: 10/15/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 01/06/2025
Number of Days to Update: 82

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-284-5103
Last EDR Contact: 01/15/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: No Update Planned

INVENTORY: Inventory of Facilities

The Inventory of Facilities has three data sources: Facilities under Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA) identified through state funded or private party response activities (Projects); Facilities under Part 213, Leaking Underground Storage Tanks of the NREPA; and Facilities identified through submittals of Baseline Environmental Assessments (BEA) submitted pursuant to Part 201 or Part 213 of the NREPA. The Part 201 Projects Inventory does not include all of the facilities that are subject to regulation under Part 201 because owners are not required to inform the Department of Environmental Quality (DEQ) about the facilities and can pursue cleanup independently. Facilities that are not known to DEQ are not on the Inventory, nor are locations with releases that resulted in low environmental impact. Part 213 facilities listed here may have more than one release; a list of releases for which corrective actions have been completed and list of releases for which corrective action has not been completed is located on the Leaking Underground Storage Tanks Site Search webpage. The DEQ may or may not have reviewed and concurred with the conclusion that the corrective actions described in a closure report meets criteria. A BEA is a document that new or prospective property owners/operations disclose to the DEQ identifying the property as a facility pursuant to Part 201 and Part 213. The Inventory of BEA Facilities overlaps in part with the Part 201 Projects facilities and Part 213 facilities. There may be more than one BEA for each facility.

Date of Government Version: 10/15/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 01/06/2025
Number of Days to Update: 82

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-284-5136
Last EDR Contact: 01/14/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Quarterly

CDL: Clandestine Drug Lab Listing

A listing of clandestine drug lab locations.

Date of Government Version: 07/17/2024
Date Data Arrived at EDR: 07/31/2024
Date Made Active in Reports: 08/08/2024
Number of Days to Update: 8

Source: Department of Community Health
Telephone: 517-373-3740
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: No Update Planned

DEL PART 201: Delisted List of Contaminated Sites

A deleted site has been removed from the Part 201 List because information known to the DEQ at the time of the evaluation does not support inclusion on the Part 201 List. This designation is often applied to sites where changes in cleanup criteria resulted in a determination that the site no longer exceeds any applicable cleanup criterion. A delisted site has been removed from the Part 201 List because response actions have reduced the levels of contaminants to concentrations which meet or are below the criteria for unrestricted residential use.

Date of Government Version: 10/15/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 01/06/2025
Number of Days to Update: 82

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-9541
Last EDR Contact: 01/15/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/20/2024
Date Data Arrived at EDR: 08/19/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 51

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Quarterly

Local Land Records

LIENS: Lien List

An Environmental Lien is a charge, security, or encumbrance upon title to a property to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of hazardous substances or petroleum products upon a property, including (but not limited to) liens imposed pursuant to CERCLA 42 USC * 9607(1) and similar state or local laws. In other words: a lien placed upon a property's title due to an environmental condition

Date of Government Version: 07/22/2024
Date Data Arrived at EDR: 10/08/2024
Date Made Active in Reports: 12/23/2024
Number of Days to Update: 76

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-241-7603
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/14/2024
Date Data Arrived at EDR: 06/17/2024
Date Made Active in Reports: 06/24/2024
Number of Days to Update: 7

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 12/11/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

PEAS: Pollution Emergency Alerting System

Environmental pollution emergencies reported to the Department of Environmental Quality such as tanker accidents, pipeline breaks, and release of reportable quantities of hazardous substances.

Date of Government Version: 09/27/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 01/06/2025
Number of Days to Update: 82

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-8427
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Quarterly

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

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

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 10/01/2024
Date Data Arrived at EDR: 11/12/2024
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 70

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 11/12/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 06/07/2021
Date Data Arrived at EDR: 07/13/2021
Date Made Active in Reports: 03/09/2022
Number of Days to Update: 239

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/07/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 12/30/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 07/30/2021
Date Data Arrived at EDR: 02/03/2023
Date Made Active in Reports: 02/10/2023
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 11/04/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/20/2024
Number of Days to Update: 94

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA Watch List

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: No Update Planned

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 10/31/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 06/14/2022
Date Made Active in Reports: 03/24/2023
Number of Days to Update: 283

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/24/2025
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2022
Date Data Arrived at EDR: 11/13/2023
Date Made Active in Reports: 02/07/2024
Number of Days to Update: 86

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 11/14/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 10/15/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 90

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/15/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 10/24/2024
Date Data Arrived at EDR: 11/01/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 18

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 10/01/2024
Date Data Arrived at EDR: 10/23/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 09/19/2023
Date Data Arrived at EDR: 10/03/2023
Date Made Active in Reports: 10/19/2023
Number of Days to Update: 16

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 10/02/2024
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 100

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/12/2024
Date Data Arrived at EDR: 10/17/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 33

Source: Nuclear Regulatory Commission
Telephone: 301-415-0717
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2023
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 90
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 11/20/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 11/20/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 10/31/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 10/04/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 51

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2024
Date Data Arrived at EDR: 10/09/2024
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 93

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 12/30/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2021
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 03/20/2023
Number of Days to Update: 11

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 12/30/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 03/03/2023
Date Data Arrived at EDR: 03/03/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 98

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 05/08/2024
Date Data Arrived at EDR: 08/14/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 14

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 11/14/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 10/01/2024
Date Data Arrived at EDR: 10/02/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 7

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Quarterly

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/06/2024
Date Data Arrived at EDR: 08/14/2024
Date Made Active in Reports: 08/15/2024
Number of Days to Update: 1

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 11/18/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/02/2024
Date Data Arrived at EDR: 08/20/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 50

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System

Mineral Resources Data System

Date of Government Version: 08/23/2022
Date Data Arrived at EDR: 11/22/2022
Date Made Active in Reports: 02/28/2023
Number of Days to Update: 98

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/10/2024
Date Data Arrived at EDR: 09/11/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 69

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 12/10/2024
Next Scheduled EDR Contact: 03/17/2025
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 08/13/2024
Date Data Arrived at EDR: 08/20/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 8

Source: EPA
Telephone: (312) 353-2000
Last EDR Contact: 11/20/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites
A listing of unexploded ordnance site locations

Date of Government Version: 09/06/2023
Date Data Arrived at EDR: 09/13/2023
Date Made Active in Reports: 12/11/2023
Number of Days to Update: 89

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 01/06/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/06/2021
Date Data Arrived at EDR: 05/21/2021
Date Made Active in Reports: 08/11/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 11/13/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information
ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 12/21/2024
Date Data Arrived at EDR: 12/27/2024
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 14

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 12/27/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 11/08/2024
Date Data Arrived at EDR: 11/08/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 67

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 11/08/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Quarterly

PFAS NPL: Superfund Sites with PFAS Detections Information
EPA's Office of Land and Emergency Management and EPA Regional Offices maintain data describing what is known about site investigations, contamination, and remedial actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) where PFAS is present in the environment.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 703-603-8895
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS FEDERAL SITES: Federal Sites PFAS Information
Several federal entities, such as the federal Superfund program, Department of Defense, National Aeronautics and Space Administration, Department of Transportation, and Department of Energy provided information for sites with known or suspected detections at federal facilities.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS TSCA: PFAS Manufacture and Imports Information

EPA issued the Chemical Data Reporting (CDR) Rule under the Toxic Substances Control Act (TSCA) and requires chemical manufacturers and facilities that manufacture or import chemical substances to report data to EPA. EPA publishes non-confidential business information (non-CBI) and includes descriptive information about each site, corporate parent, production volume, other manufacturing information, and processing and use information.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS TRIS: List of PFAS Added to the TRI

Section 7321 of the National Defense Authorization Act for Fiscal Year 2020 (NDAA) immediately added certain per- and polyfluoroalkyl substances (PFAS) to the list of chemicals covered by the Toxics Release Inventory (TRI) under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) and provided a framework for additional PFAS to be added to TRI on an annual basis.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-566-0250
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS RCRA MANIFEST: PFAS Transfers Identified In the RCRA Database Listing

To work around the lack of PFAS waste codes in the RCRA database, EPA developed the PFAS Transfers dataset by mining e-Manifest records containing at least one of these common PFAS keywords: PFAS, PFOA, PFOS, PERFL, AFFF, GENX, GEN-X (plus the VT waste codes). These keywords were searched for in the following text fields: Manifest handling instructions (MANIFEST_HANDLING_INSTR), Non-hazardous waste description (NON_HAZ_WASTE_DESCRIPTION), DOT printed information (DOT_PRINTED_INFORMATION), Waste line handling instructions (WASTE_LINE_HANDLING_INSTR), Waste residue comments (WASTE_RESIDUE_COMMENTS).

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS ATSDR: PFAS Contamination Site Location Listing

PFAS contamination site locations from the Department of Health & Human Services, Center for Disease Control & Prevention. ATSDR is involved at a number of PFAS-related sites, either directly or through assisting state and federal partners. As of now, most sites are related to drinking water contamination connected with PFAS production facilities or fire training areas where aqueous film-forming firefighting foam (AFFF) was regularly used.

Date of Government Version: 06/24/2020
Date Data Arrived at EDR: 03/17/2021
Date Made Active in Reports: 11/08/2022
Number of Days to Update: 601

Source: Department of Health & Human Services
Telephone: 202-741-5770
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 05/05/2025
Data Release Frequency: Varies

PFAS WQP: Ambient Environmental Sampling for PFAS

The Water Quality Portal (WQP) is a part of a modernized repository storing ambient sampling data for all environmental media and tissue samples. A wide range of federal, state, tribal and local governments, academic and non-governmental organizations and individuals submit project details and sampling results to this public repository. The information is commonly used for research and assessments of environmental quality.

Date of Government Version: 12/13/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS NPDES: Clean Water Act Discharge Monitoring Information

Any discharger of pollutants to waters of the United States from a point source must have a National Pollutant Discharge Elimination System (NPDES) permit. The process for obtaining limits involves the regulated entity (permittee) disclosing releases in a NPDES permit application and the permitting authority (typically the state but sometimes EPA) deciding whether to require monitoring or monitoring with limits. Caveats and Limitations: Less than half of states have required PFAS monitoring for at least one of their permittees and fewer states have established PFAS effluent limits for permittees. New rulemakings have been initiated that may increase the number of facilities monitoring for PFAS in the future.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS PROJECT: NORTHEASTERN UNIVERSITY PFAS PROJECT

The PFAS Contamination Site Tracker records qualitative and quantitative data from each site in a chart, specifically examining discovery, contamination levels, government response, litigation, health impacts, media coverage, and community characteristics. All data presented in the chart were extracted from government websites, such as state health departments or the Environmental Protection Agency, and news articles.

Date of Government Version: 05/19/2023
Date Data Arrived at EDR: 04/05/2024
Date Made Active in Reports: 06/06/2024
Number of Days to Update: 62

Source: Social Science Environmental Health Research Institute
Telephone: N/A
Last EDR Contact: 12/05/2024
Next Scheduled EDR Contact: 03/17/2025
Data Release Frequency: Varies

PFAS ECHO: Facilities in Industries that May Be Handling PFAS Listing

Regulators and the public have expressed interest in knowing which regulated entities may be using PFAS. EPA has developed a dataset from various sources that show which industries may be handling PFAS. Approximately 120,000 facilities subject to federal environmental programs have operated or currently operate in industry sectors with processes that may involve handling and/or release of PFAS.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS ECHO FIRE TRAIN: Facilities in Industries that May Be Handling PFAS Listing

A list of fire training sites was added to the Industry Sectors dataset using a keyword search on the permitted facilitys name to identify sites where fire-fighting foam may have been used in training exercises. Additionally, you may view an example spreadsheet of the subset of fire training facility data, as well as the keywords used in selecting or deselecting a facility for the subset. as well as the keywords used in selecting or deselecting a facility for the subset. These keywords were tested to maximize accuracy in selecting facilities that may use fire-fighting foam in training exercises, however, due to the lack of a required reporting field in the data systems for designating fire training sites, this methodology may not identify all fire training sites or may potentially misidentify them.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS PT 139 AIRPORT: All Certified Part 139 Airports PFAS Information Listing

Since July 1, 2006, all certified part 139 airports are required to have fire-fighting foam onsite that meet military specifications (MIL-F-24385) (14 CFR 139.317). To date, these military specification fire-fighting foams are fluorinated and have been historically used for training and extinguishing. The 2018 FAA Reauthorization Act has a provision stating that no later than October 2021, FAA shall not require the use of fluorinated AFFF. This provision does not prohibit the use of fluorinated AFFF at Part 139 civilian airports; it only prohibits FAA from mandating its use. The Federal Aviation Administration?s document AC 150/5210-6D - Aircraft Fire Extinguishing Agents provides guidance on Aircraft Fire Extinguishing Agents, which includes Aqueous Film Forming Foam (AFFF).

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

AQUEOUS FOAM NRC: Aqueous Foam Related Incidents Listing

The National Response Center (NRC) serves as an emergency call center that fields initial reports for pollution and railroad incidents and forwards that information to appropriate federal/state agencies for response. The spreadsheets posted to the NRC website contain initial incident data that has not been validated or investigated by a federal/state response agency. Response center calls from 1990 to the most recent complete calendar year where there was indication of Aqueous Film Forming Foam (AFFF) usage are included in this dataset. NRC calls may reference AFFF usage in the ?Material Involved? or ?Incident Description? fields.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-267-2675
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PCS: Permit Compliance System

PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 12/16/2016
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 03/10/2017
Number of Days to Update: 63

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: No Update Planned

PCS ENF: Enforcement data

No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

BIOSOLIDS: ICIS-NPDES Biosolids Facility Data

The data reflects compliance information about facilities in the biosolids program.

Date of Government Version: 10/13/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 202-564-4700
Last EDR Contact: 01/14/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

UST FINDER RELEASE: UST Finder Releases Database

US EPA's UST Finder data is a national composite of leaking underground storage tanks. This data contains information about, and locations of, leaking underground storage tanks. Data was collected from state sources and standardized into a national profile by EPA's Office of Underground Storage Tanks, Office of Research and Development, and the Association of State and Territorial Solid Waste Management Officials.

Date of Government Version: 06/08/2023
Date Data Arrived at EDR: 10/31/2023
Date Made Active in Reports: 01/18/2024
Number of Days to Update: 79

Source: Environmental Protecton Agency
Telephone: 202-564-0394
Last EDR Contact: 11/06/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Semi-Annually

UST FINDER: UST Finder Database

EPA developed UST Finder, a web map application containing a comprehensive, state-sourced national map of underground storage tank (UST) and leaking UST (LUST) data. It provides the attributes and locations of active and closed USTs, UST facilities, and LUST sites from states and from Tribal lands and US territories . UST Finder contains information about proximity of UST facilities and LUST sites to: surface and groundwater public drinking water protection areas; estimated number of private domestic wells and number of people living nearby; and flooding and wildfires.

Date of Government Version: 06/08/2023
Date Data Arrived at EDR: 10/04/2023
Date Made Active in Reports: 01/18/2024
Number of Days to Update: 106

Source: Environmental Protection Agency
Telephone: 202-564-0394
Last EDR Contact: 11/06/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

E MANIFEST: Hazardous Waste Electronic Manifest System

EPA established a national system for tracking hazardous waste shipments electronically. This system, known as ?e-Manifest,? will modernize the nation?s cradle-to-grave hazardous waste tracking process while saving valuable time, resources, and dollars for industry and states.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/20/2024
Number of Days to Update: 94

Source: Environmental Protection Agency
Telephone: 833-501-6826
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Varies

PFAS: PFAS Contaminated Sites Listing

PFAS have been widely used in numerous industrial and residential applications since the 1950a??s. Their stability and unique chemical properties produce waterproof, stain resistant, and nonstick qualities in products. They are found in some firefighting foams and a wide range of consumer products such as carpet treatments, non-stick cookware, water-resistant fabrics, food packaging materials, and personal care products.

Date of Government Version: 02/15/2024
Date Data Arrived at EDR: 08/06/2024
Date Made Active in Reports: 10/24/2024
Number of Days to Update: 79

Source: Department of Environment, Great Lakes & Energy
Telephone: 517-284-9278
Last EDR Contact: 11/06/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

AQUEOUS FOAM: Aqueous Film Forma Foam Listing

Sites with Aqueous Film Forming Foam contamination, as reported to the Department of Environment, Great Lakes & Energy. AFFF is a fire suppressant used to extinguish flammable liquid fires such as fuel fires.

Date of Government Version: 10/22/2024
Date Data Arrived at EDR: 10/25/2024
Date Made Active in Reports: 01/09/2025
Number of Days to Update: 76

Source: Department of Environment, Great Lakes & Energy
Telephone: 517-284-9278
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

AIRS: Permit and Emissions Inventory Data

Permit and emissions inventory data.

Date of Government Version: 09/12/2024
Date Data Arrived at EDR: 09/13/2024
Date Made Active in Reports: 11/25/2024
Number of Days to Update: 73

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-7074
Last EDR Contact: 12/04/2024
Next Scheduled EDR Contact: 03/24/2025
Data Release Frequency: Annually

ASBESTOS: Asbestos Notification Listing

Asbestos

Date of Government Version: 09/30/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 7

Source: Department of Licensing & Regulatory Affairs
Telephone: 517-284-7699
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Quarterly

BEA: Baseline Environmental Assessment Database

A BEA is a document that new or prospective property owners/operations disclose to the DEQ identifying the property as a facility pursuant to Part 201 and Part 213. The Inventory of BEA Facilities overlaps in part with the Part 201 Projects facilities and Part 213 facilities. There may be more than one BEA for each facility.

Date of Government Version: 08/15/2024
Date Data Arrived at EDR: 08/16/2024
Date Made Active in Reports: 11/04/2024
Number of Days to Update: 80

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-9541
Last EDR Contact: 10/30/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: No Update Planned

COAL ASH: Coal Ash Disposal Sites

Coal fired power plants in Southeast Michigan that have coal ash handling on site.

Date of Government Version: 04/01/2021
Date Data Arrived at EDR: 04/06/2021
Date Made Active in Reports: 06/24/2021
Number of Days to Update: 79

Source: Department of Environment, Great Lakes, and Energy
Telephone: 586-753-3754
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

DRYCLEANERS: Drycleaning Establishments

A listing of drycleaning facilities in Michigan.

Date of Government Version: 04/25/2024
Date Data Arrived at EDR: 07/09/2024
Date Made Active in Reports: 10/02/2024
Number of Days to Update: 85

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-335-4586
Last EDR Contact: 01/07/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Quarterly

FIN ASSURANCE 1: Financial Assurance Information Listing

Financial assurance information.

Date of Government Version: 03/02/2024
Date Data Arrived at EDR: 04/04/2024
Date Made Active in Reports: 07/02/2024
Number of Days to Update: 89

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-335-6610
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Semi-Annually

FIN ASSURANCE 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 09/13/2024
Date Data Arrived at EDR: 09/18/2024
Date Made Active in Reports: 12/04/2024
Number of Days to Update: 77

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-335-4034
Last EDR Contact: 12/10/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Varies

FIN ASSURANCE 3: Financial Assurance Information Listing

Financial assurance information for underground storage tank facilities.

Date of Government Version: 09/19/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 12/18/2024
Number of Days to Update: 78

Source: Department of Licensing & Regulatory Affairs
Telephone: 517-335-7279
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

LEAD: Lead Information Registry Listing

All properties in this registry received a lead-based paint inspection or a lead risk assessment, and a lead abatement service. A lead-based paint inspection identifies any lead present on the property. The lead risk assessment determines if any of the lead found is a hazard. Lead abatement services address or remove the lead hazards.

Date of Government Version: 02/28/2024
Date Data Arrived at EDR: 02/29/2024
Date Made Active in Reports: 05/21/2024
Number of Days to Update: 82

Source: Department of Health & Human Services
Telephone: 517-335-9390
Last EDR Contact: 11/19/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Varies

LEAD CERT: Lead Safe Housing Registry

A listing of Michigan properties included in the Lead Safe Housing Registry.

Date of Government Version: 03/25/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 82

Source: Department of Community Health
Telephone: 517-335-9699
Last EDR Contact: 11/19/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Quarterly

MI MANIFEST: Hazardous Waste Manifest Data

A generator who transports, or offers for transportation, hazardous waste for off-site treatment, storage or disposal must prepare a hazardous waste manifest to accompany such shipment.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 06/23/2023
Date Made Active in Reports: 12/12/2023
Number of Days to Update: 172

Source: Department of Environment, Great Lakes & Energy
Telephone: 517-284-6838
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 05/05/2025
Data Release Frequency: Annually

NPDES: List of Active NPDES Permits

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

Date of Government Version: 10/07/2024
Date Data Arrived at EDR: 10/11/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 95

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-241-1300
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

UIC: Underground Injection Wells Database

A listing of underground injection well locations. The UIC Program is responsible for regulating the construction, operation, permitting, and closure of injection wells that place fluids underground for storage or disposal.

Date of Government Version: 10/09/2024
Date Data Arrived at EDR: 10/17/2024
Date Made Active in Reports: 01/07/2025
Number of Days to Update: 82

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-241-1515
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Quarterly

WDS: Waste Data System

The Waste Data System (WDS) tracks activities at facilities regulated by the Solid Waste, Scrap Tire, Hazardous Waste, and Liquid Industrial Waste programs.

Date of Government Version: 12/08/2023
Date Data Arrived at EDR: 12/11/2023
Date Made Active in Reports: 03/05/2024
Number of Days to Update: 85

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-284-6562
Last EDR Contact: 11/07/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Varies

ENVIRO: Michigan Enviro Information

MiEnviro is permitting and compliance for air quality and water resources, including National Pollutant Discharge Elimination System (NPDES), storm water, groundwater discharge, aquatic nuisance control, Part 41 construction, medical waste registrations, and land and water interface permits.

Date of Government Version: 09/30/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 12/18/2024
Number of Days to Update: 78

Source: Department of Environment, Great Lakes, & Energy
Telephone: 800-662-9278
Last EDR Contact: 12/30/2024
Next Scheduled EDR Contact: 04/13/2025
Data Release Frequency: Quarterly

SSCUP: State Owned Sites Cleanup Program List

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.

Date of Government Version: 12/31/2023
Date Data Arrived at EDR: 07/16/2024
Date Made Active in Reports: 10/07/2024
Number of Days to Update: 83

Source: Department of Environment, Great Lakes & Energy
Telephone: 517-284-5153
Last EDR Contact: 07/16/2024
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA PART 201: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/24/2013
Number of Days to Update: 176

Source: Department of Environment, Great Lakes, and Energy
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Environment, Great Lakes, and Energy
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/24/2013
Number of Days to Update: 176

Source: Department of Environment, Great Lakes, and Energy
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 08/05/2024
Date Data Arrived at EDR: 08/06/2024
Date Made Active in Reports: 10/25/2024
Number of Days to Update: 80

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/05/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 11/30/2023
Date Made Active in Reports: 12/01/2023
Number of Days to Update: 1

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/06/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/18/2022
Number of Days to Update: 80

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/07/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 11/27/2024
Next Scheduled EDR Contact: 03/17/2025
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data

Source: Endeavor Business Media

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Day Care Centers, Group & Family Homes
Source: Bureau of REgulatory Services
Telephone: 517-373-8300

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Department of Natural Resources
Telephone: 517-241-2254

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

MIDDLE EAST PORTIONS
14760 HORNUNG ROAD
MANCHESTER, MI 48158

TARGET PROPERTY COORDINATES

Latitude (North):	42.123701 - 42° 7' 25.32''
Longitude (West):	84.130327 - 84° 7' 49.18''
Universal Tranverse Mercator:	Zone 16
UTM X (Meters):	737215.3
UTM Y (Meters):	4667283.5
Elevation:	1031 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	14450260 ONSTED, MI
Version Date:	2019
Northeast Map:	14450238 MANCHESTER, MI
Version Date:	2019
Southeast Map:	14450292 TIPTON, MI
Version Date:	2019
Northwest Map:	14450254 NORVELL, MI
Version Date:	2019

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

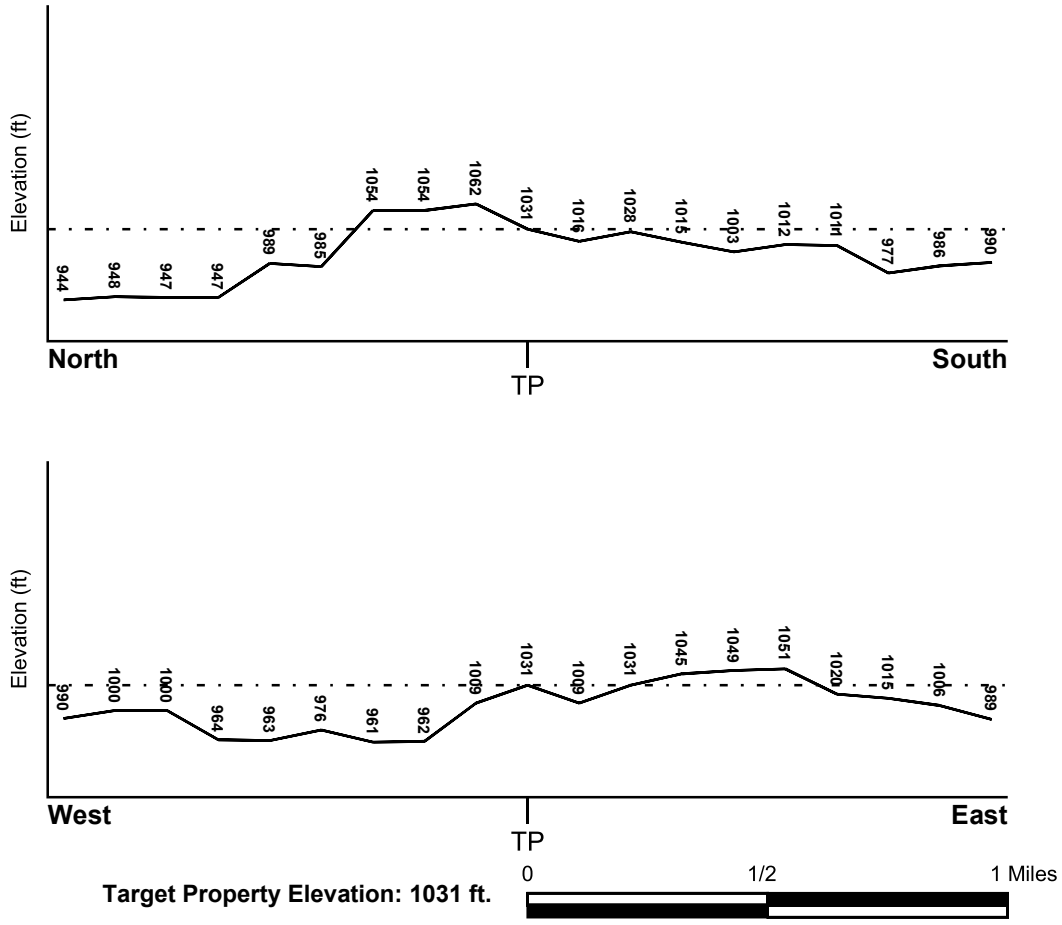
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General WSW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
26075C0500D	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
26075C0370D	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
ONSTED	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site-specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Paleozoic
System:	Mississippian
Series:	Osagean and Kinderhookian Series
Code:	M1 *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name:	HOUGHTON
Soil Surface Texture:	muck
Hydrologic Group:	Class A/D - Drained/undrained hydrology class of soils that can be drained and are classified.
Soil Drainage Class:	Very poorly. Soils are wet to the surface most of the time. Depth to water table is less than 1 foot, or is ponded.

Hydric Status: Soil meets the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel:	HIGH
Depth to Bedrock Min:	> 60 inches
Depth to Bedrock Max:	> 60 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	9 inches	muck	A-8	Highly organic soils, Peat.	Max: 6.00 Min: 0.20	Max: 7.80 Min: 4.50
2	9 inches	66 inches	muck	A-8	Highly organic soils, Peat.	Max: 6.00 Min: 0.20	Max: 7.80 Min: 4.50

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: loamy sand
sandy loam
loam
gravelly - sandy loam

Surficial Soil Types: loamy sand
sandy loam
loam
gravelly - sandy loam

Shallow Soil Types: sand
sandy loam
silty clay loam
cobbly - sandy loam
clay loam
gravelly - sandy clay loam

Deeper Soil Types: fine sand
gravelly - sand
sand and gravel
stratified
loam

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

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

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	MI6000000876278	1/8 - 1/4 Mile SSW
2	MI6000000885999	1/8 - 1/4 Mile East
A3	MI6000000886275	1/8 - 1/4 Mile NNW
A4	MI6000000886274	1/4 - 1/2 Mile NNW
5	MI6000000344721	1/4 - 1/2 Mile SSW
6	MI6000000876274	1/4 - 1/2 Mile East
7	MI6000000891973	1/2 - 1 Mile South
8	MI6000000876277	1/2 - 1 Mile ENE
9	MI6000000881715	1/2 - 1 Mile SSE
10	MI6000000876279	1/2 - 1 Mile ESE
B11	MI6000000876280	1/2 - 1 Mile ENE
B12	MI6000000891965	1/2 - 1 Mile ENE
C13	MI6000000878832	1/2 - 1 Mile ENE
14	MI6000000344702	1/2 - 1 Mile WSW
15	MI6000000891691	1/2 - 1 Mile East
D16	MI6000000876206	1/2 - 1 Mile NE
D17	MI6000000899715	1/2 - 1 Mile NE
C18	MI6000000876275	1/2 - 1 Mile East
19	MI6000000876282	1/2 - 1 Mile ESE
20	MI6000000886136	1/2 - 1 Mile East
E21	MI6000000884754	1/2 - 1 Mile East
F22	MI6000000876276	1/2 - 1 Mile SE
E23	MI6000000891953	1/2 - 1 Mile East
G24	MI6000000891976	1/2 - 1 Mile SE
25	MI6000000891952	1/2 - 1 Mile ESE
F26	MI6000000876283	1/2 - 1 Mile SE
G27	MI6000000879523	1/2 - 1 Mile SE
28	MI6000000348809	1/2 - 1 Mile WNW
29	MI6000000886902	1/2 - 1 Mile NE
30	MI6000000899961	1/2 - 1 Mile SE

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

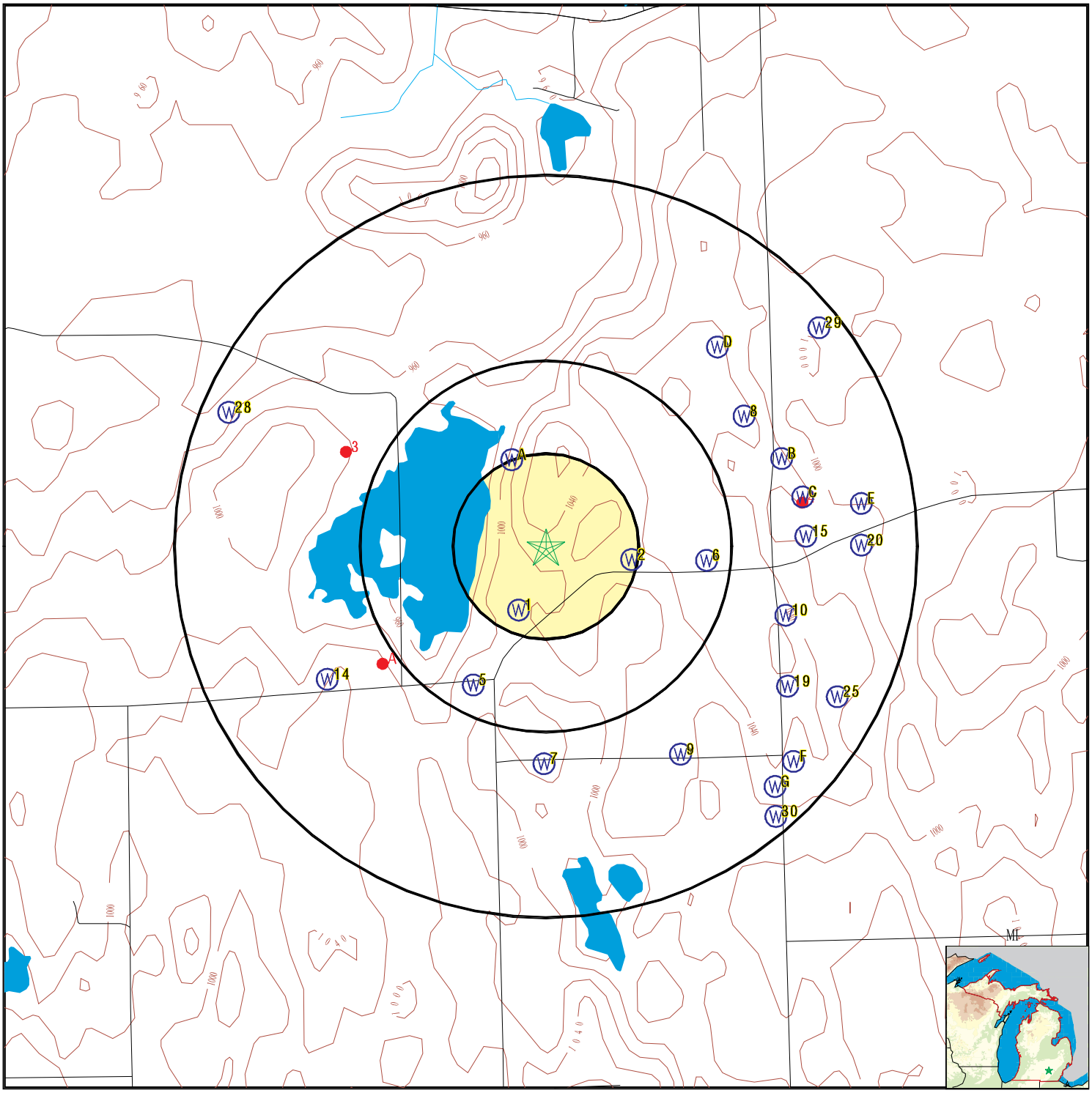
MAP ID	WELL ID	LOCATION FROM TP
A1	MIOG13000038160	1/2 - 1 Mile SW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	MIOG13000038159	1/2 - 1 Mile SW
3	MIOG13000038974	1/2 - 1 Mile WNW
4	MIOG13000093668	1/2 - 1 Mile East

PHYSICAL SETTING SOURCE MAP - 7877194.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME: Middle East Portions	CLIENT: Applied Science & Technology
ADDRESS: 14760 Hornung Road Manchester MI 48158	CONTACT: Bailey Bishop
LAT/LONG: 42.123701 / 84.130327	INQUIRY #: 7877194.2s DATE: January 22, 2025 3:17 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
SSW
1/8 - 1/4 Mile
Lower

MI WELLS **MI6000000876278**

WELLS:

Well ID:	81000007748	Permit #:	Not Reported
Owner:	RANCH, G.T.	Well Depth (ft):	202
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0106	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	18-AUG-72
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	4	Case Depth (ft):	194
Screen Start Depth (ft):	194	Screen End Depth (ft):	202
Static Water Level (ft):	52	Flowing:	N
Test Drawdown Depth (ft):	67	Test Hours:	2
Test Rate:	20	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	0
Elevation (ft):	1025	Specific Capacity:	0
Rock Top (ft):	0		

2
East
1/8 - 1/4 Mile
Higher

MI WELLS **MI6000000885999**

WELLS:

Well ID:	81000019552	Permit #:	WEL2012-00219
Owner:	Bill Sweeney	Well Depth (ft):	144
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-2487	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	06-MAR-12
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	140
Screen Start Depth (ft):	140	Screen End Depth (ft):	144
Static Water Level (ft):	78	Flowing:	N
Test Drawdown Depth (ft):	80	Test Hours:	2.5
Test Rate:	12	Test Method:	TSTPUM
Well Grouted:	Y	Pump Capacity (gpm):	12
Elevation (ft):	0	Specific Capacity:	.15
Rock Top (ft):	0		

A3
NNW
1/8 - 1/4 Mile
Lower

MI WELLS **MI6000000886275**

WELLS:

Well ID:	81000019862	Permit #:	2012 00627
Owner:	TROLZ GLYNN ASSOC INC	Well Depth (ft):	204
Well Type:	Irrigation	Other Type Info:	Not Reported

Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-2014	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	11-JAN-13
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5.68	Case Depth (ft):	189
Screen Start Depth (ft):	189	Screen End Depth (ft):	204
Static Water Level (ft):	100	Flowing:	N
Test Drawdown Depth (ft):	204	Test Hours:	2
Test Rate:	80	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	25
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

A4
NNW **MI WELLS** **MI6000000886274**
1/4 - 1/2 Mile
Lower

WELLS:

Well ID:	81000019861	Permit #:	2012 00628
Owner:	TROLZ GLYNN ASSOC INC	Well Depth (ft):	208
Well Type:	Irrigation	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-2014	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	11-JAN-13
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5.68	Case Depth (ft):	193
Screen Start Depth (ft):	193	Screen End Depth (ft):	208
Static Water Level (ft):	100	Flowing:	N
Test Drawdown Depth (ft):	208	Test Hours:	2
Test Rate:	80	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	25
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

5
SSW **MI WELLS** **MI6000000344721**
1/4 - 1/2 Mile
Lower

WELLS:

Well ID:	38000007732	Permit #:	Not Reported
Owner:	GLYNN TROLZ	Well Depth (ft):	145
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0106	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	20-AUG-67
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	4	Case Depth (ft):	136
Screen Start Depth (ft):	136	Screen End Depth (ft):	145
Static Water Level (ft):	47	Flowing:	N
Test Drawdown Depth (ft):	52	Test Hours:	2
Test Rate:	16	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	0

Rock Top (ft): 0

6
East
1/4 - 1/2 Mile
Higher

MI WELLS **MI6000000876274**

WELLS:

Well ID:	81000007744	Permit #:	Not Reported
Owner:	JOHNSON, HERBERT	Well Depth (ft):	141
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0106	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	17-OCT-86
Case Type:	Steel-black	Other Casing Info:	Not Reported
Case Diameter (in):	4	Case Depth (ft):	137
Screen Start Depth (ft):	137	Screen End Depth (ft):	141
Static Water Level (ft):	104	Flowing:	N
Test Drawdown Depth (ft):	105	Test Hours:	2.5
Test Rate:	15	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	0
Elevation (ft):	1055	Specific Capacity:	0
Rock Top (ft):	0		

7
South
1/2 - 1 Mile
Lower

MI WELLS **MI6000000891973**

WELLS:

Well ID:	81000026543	Permit #:	mc1488wr
Owner:	Emmet Noggle	Well Depth (ft):	151
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0106	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	15-JUN-88
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	0	Case Depth (ft):	0
Screen Start Depth (ft):	147	Screen End Depth (ft):	151
Static Water Level (ft):	54	Flowing:	U
Test Drawdown Depth (ft):	0	Test Hours:	0
Test Rate:	0	Test Method:	UNK
Well Grouted:	U	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

8
ENE
1/2 - 1 Mile
Higher

MI WELLS **MI6000000876277**

WELLS:

Well ID:	81000007747	Permit #:	Not Reported
Owner:	NEMANIS, ALBINAS	Well Depth (ft):	121

Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	20-JAN-75
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	4	Case Depth (ft):	117
Screen Start Depth (ft):	117	Screen End Depth (ft):	121
Static Water Level (ft):	88	Flowing:	N
Test Drawdown Depth (ft):	95	Test Hours:	8
Test Rate:	15	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	0
Elevation (ft):	1060	Specific Capacity:	0
Rock Top (ft):	0		

9
SSE **MI WELLS** **MI6000000881715**
1/2 - 1 Mile
Lower

WELLS:

Well ID:	81000013960	Permit #:	WEL2003-00556
Owner:	DAVE NOGGLE	Well Depth (ft):	130
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	13-SEP-03
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	126
Screen Start Depth (ft):	126	Screen End Depth (ft):	130
Static Water Level (ft):	73	Flowing:	N
Test Drawdown Depth (ft):	85	Test Hours:	1
Test Rate:	20	Test Method:	TSTPUM
Well Grouted:	Y	Pump Capacity (gpm):	12
Elevation (ft):	0	Specific Capacity:	.23529412
Rock Top (ft):	0		

10
ESE **MI WELLS** **MI6000000876279**
1/2 - 1 Mile
Higher

WELLS:

Well ID:	81000007749	Permit #:	Not Reported
Owner:	WATNE, VERNIE	Well Depth (ft):	128
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	01-APR-71
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	4	Case Depth (ft):	125
Screen Start Depth (ft):	124	Screen End Depth (ft):	128
Static Water Level (ft):	105	Flowing:	N
Test Drawdown Depth (ft):	106	Test Hours:	4
Test Rate:	12	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	0

Elevation (ft):	1061	Specific Capacity:	0
Rock Top (ft):	0		

B11
ENE
1/2 - 1 Mile
Lower

MI WELLS **MI6000000876280**

WELLS:

Well ID:	81000007750	Permit #:	Not Reported
Owner:	GILBERT, DEWEY	Well Depth (ft):	126
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	15-AUG-74
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	4	Case Depth (ft):	121
Screen Start Depth (ft):	120	Screen End Depth (ft):	126
Static Water Level (ft):	60	Flowing:	N
Test Drawdown Depth (ft):	65	Test Hours:	1
Test Rate:	15	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	0
Elevation (ft):	1022	Specific Capacity:	0
Rock Top (ft):	0		

B12
ENE
1/2 - 1 Mile
Lower

MI WELLS **MI6000000891965**

WELLS:

Well ID:	81000026535	Permit #:	94-05100
Owner:	Dewey Gilbert	Well Depth (ft):	100
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	29-SEP-94
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	0	Case Depth (ft):	0
Screen Start Depth (ft):	97	Screen End Depth (ft):	100
Static Water Level (ft):	60	Flowing:	U
Test Drawdown Depth (ft):	0	Test Hours:	0
Test Rate:	0	Test Method:	UNK
Well Grouted:	U	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

C13
ENE
1/2 - 1 Mile
Lower

MI WELLS **MI6000000878832**

WELLS:

Well ID:	81000010689	Permit #:	99-06017

Owner:	RONALD B OLIVER	Well Depth (ft):	88
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	41-2287	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	07-JUN-00
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	80
Screen Start Depth (ft):	80	Screen End Depth (ft):	88
Static Water Level (ft):	50	Flowing:	N
Test Drawdown Depth (ft):	0	Test Hours:	0
Test Rate:	25	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

14
WSW
1/2 - 1 Mile
Lower

MI WELLS **MI6000000344702**

WELLS:

Well ID:	38000007713	Permit #:	Not Reported
Owner:	GLYNN TROLZ	Well Depth (ft):	148
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0106	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	26-FEB-68
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	4	Case Depth (ft):	144
Screen Start Depth (ft):	144	Screen End Depth (ft):	148
Static Water Level (ft):	76	Flowing:	N
Test Drawdown Depth (ft):	82	Test Hours:	2
Test Rate:	15	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

15
East
1/2 - 1 Mile
Lower

MI WELLS **MI6000000891691**

WELLS:

Well ID:	81000026260	Permit #:	Not Reported
Owner:	Harry Beland (Tecumseh Woodwor		
Well Depth (ft):	77	Well Type:	Industrial
Other Type Info:	Not Reported	Well Status:	Active
Other Status Info:	Not Reported	Water Supply Serial #:	0
Well #:	Not Reported	Driller ID:	46-0021
Drill Method:	Cable Tool	Other Method Info:	Not Reported
Construction Date:	04-JUN-75	Case Type:	Unknown
Other Casing Info:	Not Reported	Case Diameter (in):	0
Case Depth (ft):	0	Screen Start Depth (ft):	73
Screen End Depth (ft):	77	Static Water Level (ft):	64
Flowing:	U	Test Drawdown Depth (ft):	0
Test Hours:	0	Test Rate:	0

Test Method:	UNK	Well Grouted:	U
Pump Capacity (gpm):	0	Elevation (ft):	0
Specific Capacity:	0	Rock Top (ft):	0

D16
NE
1/2 - 1 Mile
Higher

MI WELLS **MI6000000876206**

WELLS:

Well ID:	81000007675	Permit #:	Not Reported
Owner:	BEEKEL, J	Well Depth (ft):	111
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	02-MAY-69
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	4	Case Depth (ft):	107
Screen Start Depth (ft):	106	Screen End Depth (ft):	111
Static Water Level (ft):	84	Flowing:	N
Test Drawdown Depth (ft):	100	Test Hours:	2
Test Rate:	30	Test Method:	UNK
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	1050	Specific Capacity:	0
Rock Top (ft):	0		

D17
NE
1/2 - 1 Mile
Higher

MI WELLS **MI6000000899715**

WELLS:

Well ID:	81000034310	Permit #:	WELL2022-0002
Owner:	BRADLEY AND SARAH HOWE	Well Depth (ft):	130
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-2014	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	07-JUL-22
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5.68	Case Depth (ft):	120
Screen Start Depth (ft):	120	Screen End Depth (ft):	130
Static Water Level (ft):	96	Flowing:	N
Test Drawdown Depth (ft):	115	Test Hours:	1
Test Rate:	25	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	18
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

C18
East
1/2 - 1 Mile
Lower

MI WELLS **MI6000000876275**

WELLS:

Well ID:	81000007745	Permit #:	Not Reported
Owner:	HENCK, PATRICK	Well Depth (ft):	116
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-1290	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	27-JUN-85
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	0	Case Depth (ft):	0
Screen Start Depth (ft):	109	Screen End Depth (ft):	116
Static Water Level (ft):	60	Flowing:	N
Test Drawdown Depth (ft):	63	Test Hours:	2
Test Rate:	15	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	0
Elevation (ft):	1010	Specific Capacity:	0
Rock Top (ft):	0		

19
ESE
1/2 - 1 Mile
Higher

MI WELLS **MI6000000876282**

WELLS:

Well ID:	81000007752	Permit #:	Not Reported
Owner:	KEMETER, JOSEPH	Well Depth (ft):	127
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	17-NOV-69
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	4	Case Depth (ft):	122
Screen Start Depth (ft):	123	Screen End Depth (ft):	127
Static Water Level (ft):	100	Flowing:	N
Test Drawdown Depth (ft):	102	Test Hours:	2
Test Rate:	25	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	0
Elevation (ft):	1061	Specific Capacity:	0
Rock Top (ft):	0		

20
East
1/2 - 1 Mile
Lower

MI WELLS **MI6000000886136**

WELLS:

Well ID:	81000019702	Permit #:	2012 00507
Owner:	SUSAN HAMMOND	Well Depth (ft):	51
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-2014	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	24-AUG-12
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5.68	Case Depth (ft):	46
Screen Start Depth (ft):	46	Screen End Depth (ft):	51
Static Water Level (ft):	31	Flowing:	N
Test Drawdown Depth (ft):	51	Test Hours:	2

Test Rate:	20	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

E21
East
1/2 - 1 Mile
Lower

MI WELLS **MI6000000884754**

WELLS:

Well ID:	81000018044	Permit #:	2007 00520
Owner:	Gary Bell	Well Depth (ft):	130
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-2014	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	20-NOV-07
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5.67	Case Depth (ft):	120
Screen Start Depth (ft):	120	Screen End Depth (ft):	130
Static Water Level (ft):	53	Flowing:	N
Test Drawdown Depth (ft):	130	Test Hours:	2
Test Rate:	60	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	12
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

F22
SE
1/2 - 1 Mile
Lower

MI WELLS **MI6000000876276**

WELLS:

Well ID:	81000007746	Permit #:	Not Reported
Owner:	KEMETER, JAMES	Well Depth (ft):	100
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	16-AUG-81
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	4	Case Depth (ft):	96
Screen Start Depth (ft):	96	Screen End Depth (ft):	100
Static Water Level (ft):	80	Flowing:	N
Test Drawdown Depth (ft):	84	Test Hours:	5
Test Rate:	15	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	0
Elevation (ft):	1045	Specific Capacity:	0
Rock Top (ft):	0		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

E23
East
1/2 - 1 Mile
Lower

MI WELLS **MI6000000891953**

WELLS:

Well ID:	81000026523	Permit #:	MC 6 -71
Owner:	Gordon Cotton	Well Depth (ft):	130
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0404	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	22-JUN-72
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	0	Case Depth (ft):	0
Screen Start Depth (ft):	126	Screen End Depth (ft):	130
Static Water Level (ft):	60	Flowing:	U
Test Drawdown Depth (ft):	0	Test Hours:	0
Test Rate:	0	Test Method:	UNK
Well Grouted:	U	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

G24
SE
1/2 - 1 Mile
Higher

MI WELLS **MI6000000891976**

WELLS:

Well ID:	81000026546	Permit #:	MC-29-89
Owner:	Margaret Chase	Well Depth (ft):	126
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	04-JAN-90
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	0	Case Depth (ft):	0
Screen Start Depth (ft):	123	Screen End Depth (ft):	126
Static Water Level (ft):	78	Flowing:	U
Test Drawdown Depth (ft):	0	Test Hours:	0
Test Rate:	0	Test Method:	UNK
Well Grouted:	U	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

25
ESE
1/2 - 1 Mile
Lower

MI WELLS **MI6000000891952**

WELLS:

Well ID:	81000026522	Permit #:	mc-1788ww
Owner:	Paul C Baron CTP Farms	Well Depth (ft):	110
Well Type:	Household	Other Type Info:	Not Reported

Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	23-0107	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	11-JAN-89
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	0	Case Depth (ft):	0
Screen Start Depth (ft):	106	Screen End Depth (ft):	110
Static Water Level (ft):	65	Flowing:	U
Test Drawdown Depth (ft):	0	Test Hours:	0
Test Rate:	0	Test Method:	UNK
Well Grouted:	U	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

F26
SE
1/2 - 1 Mile
Higher

MI WELLS **MI6000000876283**

WELLS:

Well ID:	81000007753	Permit #:	Not Reported
Owner:	LANE, KEN	Well Depth (ft):	121
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	46-1823	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	26-AUG-86
Case Type:	Steel-black	Other Casing Info:	Not Reported
Case Diameter (in):	4	Case Depth (ft):	117
Screen Start Depth (ft):	117	Screen End Depth (ft):	121
Static Water Level (ft):	85	Flowing:	N
Test Drawdown Depth (ft):	85	Test Hours:	2
Test Rate:	10	Test Method:	UNK
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	1035	Specific Capacity:	0
Rock Top (ft):	0		

G27
SE
1/2 - 1 Mile
Lower

MI WELLS **MI6000000879523**

WELLS:

Well ID:	81000011444	Permit #:	00-06760
Owner:	TONY AND KIM TRUPIANO	Well Depth (ft):	90
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	12-MAY-01
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	86
Screen Start Depth (ft):	86	Screen End Depth (ft):	90
Static Water Level (ft):	76	Flowing:	N
Test Drawdown Depth (ft):	79	Test Hours:	1
Test Rate:	20	Test Method:	TSTPUM
Well Grouted:	Y	Pump Capacity (gpm):	12
Elevation (ft):	0	Specific Capacity:	.25316456

Rock Top (ft):	0

28
WNW **MI WELLS** **MI6000000348809**
1/2 - 1 Mile
Lower

WELLS:

Well ID:	38000013767	Permit #:	18827
Owner:	Bill Hubbell	Well Depth (ft):	32
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-2487	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	11-JUL-17
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	28
Screen Start Depth (ft):	28	Screen End Depth (ft):	32
Static Water Level (ft):	21	Flowing:	N
Test Drawdown Depth (ft):	21	Test Hours:	2
Test Rate:	15	Test Method:	TSTPUM
Well Grouted:	Y	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	.71428571
Rock Top (ft):	0		

29
NE **MI WELLS** **MI6000000886902**
1/2 - 1 Mile
Lower

WELLS:

Well ID:	81000020660	Permit #:	2014 00303
Owner:	GEORGE WILBUR	Well Depth (ft):	109
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-2014	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	18-JUL-14
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5.68	Case Depth (ft):	97
Screen Start Depth (ft):	97	Screen End Depth (ft):	107
Static Water Level (ft):	50	Flowing:	N
Test Drawdown Depth (ft):	109	Test Hours:	2
Test Rate:	50	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	18
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

30
SE **MI WELLS** **MI6000000899961**
1/2 - 1 Mile
Lower

WELLS:

Well ID:	81000034649	Permit #:	WELL2022-0515
Owner:	John Bell	Well Depth (ft):	138

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-2487	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	11-JAN-23
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	134
Screen Start Depth (ft):	134	Screen End Depth (ft):	138
Static Water Level (ft):	56	Flowing:	N
Test Drawdown Depth (ft):	73	Test Hours:	2
Test Rate:	12	Test Method:	TSTPUM
Well Grouted:	Y	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	.16438356
Rock Top (ft):	0		

Map ID
Direction
Distance

Database EDR ID Number

A1
SW
1/2 - 1 Mile

OIL_GAS **MIOG13000038160**

OIL_GAS:

API #:	21075194440100	Well #:	1
Permit #:	19444	Completion Date:	0
Plug Date:	Not Reported	Well Type:	Dry Hole
Well Status:	Plugging Approved	Bore Type:	Oil and Gas Test
Slant:	V	Total Depth Drilled (ft):	4700
True Vertical Depth (ft):	0	Kickoff Point of TVD:	0
Deepest Formation:	TREMPEALEAU	Formation Tops:	K
Field Name:	Not Reported	Production Formation:	Not Reported
Production Unit #:	Not Reported	Lease Name:	Watkins Farms Inc
Operator #:	3415	Company Name:	Taggart Co The
Surface Owner:	Not Reported	State Owned Land:	0
Federally Owned Land:	0	H2S Concentration:	0
Permit Date:	Not Reported		

A2
SW
1/2 - 1 Mile

OIL_GAS **MIOG13000038159**

OIL_GAS:

API #:	21075194440000	Well #:	1
Permit #:	19444	Completion Date:	0
Plug Date:	Not Reported	Well Type:	Dry Hole
Well Status:	Plugging Approved	Bore Type:	Oil and Gas Test
Slant:	V	Total Depth Drilled (ft):	4700
True Vertical Depth (ft):	0	Kickoff Point of TVD:	0
Deepest Formation:	TREMPEALEAU	Formation Tops:	K
Field Name:	Not Reported	Production Formation:	Not Reported
Production Unit #:	Not Reported	Lease Name:	Watkins Farms Inc
Operator #:	3415	Company Name:	Taggart Co The
Surface Owner:	Not Reported	State Owned Land:	0
Federally Owned Land:	0	H2S Concentration:	0
Permit Date:	14-JAN-55		

3
WNW
1/2 - 1 Mile

OIL_GAS **MIOG13000038974**

OIL_GAS:

API #:	21075606270000	Well #:	1-13
Permit #:	60627	Completion Date:	0
Plug Date:	Not Reported	Well Type:	Location
Well Status:	Terminated Permit	Bore Type:	Oil and Gas Test
Slant:	D	Total Depth Drilled (ft):	0
True Vertical Depth (ft):	0	Kickoff Point of TVD:	0
Deepest Formation:	Not Reported	Formation Tops:	Not Reported
Field Name:	Not Reported	Production Formation:	Not Reported
Production Unit #:	Not Reported	Lease Name:	Trolz
Operator #:	6513	Company Name:	Zackson Resources Inc

Surface Owner:	GLYNN TROLZ & ASSOCIATES, INC.		
State Owned Land:	0	Federally Owned Land:	0
H2S Concentration:	0	Permit Date:	03-OCT-12

4
East
1/2 - 1 Mile

OIL_GAS **MIOG13000093668**

OIL_GAS:

API #:	21161409910000	Well #:	1-17
Permit #:	40991	Completion Date:	0
Plug Date:	23-APR-88	Well Type:	Dry Hole
Well Status:	Plugging Approved	Bore Type:	Oil and Gas Test
Slant:	D	Total Depth Drilled (ft):	4725
True Vertical Depth (ft):	4644	Kickoff Point of TVD:	0
Deepest Formation:	PRAIRIE DU CHIEN	Formation Tops:	K
Field Name:	Not Reported	Production Formation:	Not Reported
Production Unit #:	Not Reported	Lease Name:	Whippoorwill Farms
Operator #:	4812	Company Name:	Walkowe Exploration Partners
Surface Owner:	FEE	State Owned Land:	0
Federally Owned Land:	0	H2S Concentration:	0
Permit Date:	22-FEB-88		

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RADON

AREA RADON INFORMATION

State Database: MI Radon

Radon Test Results

Zipcode	Test Date	LT Sign	Result
48158	1/28/2002		1.5
48158	4/13/2006		1.6
48158	1/14/1995		1.6
48158	5/10/2005		1.5
48158	3/23/2009		1.5
48158	3/18/1997		1.4
48158	11/9/2009		18.9
48158	2/11/2005		18.6
48158	2/13/2009		4.5
48158	2/26/2002		4.0
48158	11/13/2003		4.1
48158	2/1/2003		4.1
48158	9/15/2008		4.0
48158	5/20/2000		4.6
48158	1/27/2006		4.4
48158	8/20/2009		4.6
48158	2/3/2009		4.6
48158	8/25/2003		4.5
48158	10/23/2004		4.2
48158	1/4/2005		4.2
48158	1/27/2006		4.5
48158	3/27/2006		4.5
48158	2/17/2009		4.1
48158	11/9/2006		7.2
48158	2/3/2009		6.9
48158	2/13/2003		6.8
48158	2/14/2006		6.6
48158	12/28/1994		6.6
48158	2/7/2005		6.8
48158	2/5/2009		6.8
48158	3/7/2009		6.3
48158	3/11/1997		6.1
48158	1/27/2003		6.0
48158	5/24/2005		4.6
48158	11/16/2002		5.5
48158	11/9/2001		5.5
48158	2/14/2002		5.9
48158	2/4/2006		5.1
48158	2/3/2009		4.8
48158	3/12/2007		5.9
48158	11/20/2009		5.5
48158	4/6/2009		5.5
48158	1/19/2004		4.7
48158	3/14/2005		4.7
48158	11/16/2002		5.8
48158	2/26/2007		5.4
48158			

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

	5/10/2008	5.4
48158	2/20/2009	5.1
48158	2/18/2005	4.8
48158	3/25/2009	5.8
48158	10/30/2004	5.7
48158	2/10/2004	5.3
48158	9/15/2008	4.7
48158	6/17/2008	5.7
48158	2/2/2002	5.6
48158	3/4/2005	5.6
48158	2/7/2009	5.3
48158	4/3/2009	7.1
48158	3/29/2000	7.9
48158	2/17/2009	7.9
48158	2/9/2006	7.8
48158	2/2/2006	7.8
48158	2/4/2006	7.8
48158	3/14/2009	7.4
48158	12/29/1997	6.6
48158	2/1/2003	6.6
48158	1/10/2009	7.8
48158	12/12/2000	7.3
48158	12/9/2002	6.9
48158	6/28/2002	2.0
48158	5/9/2009	163.0
48158	2/16/2004	137.2
48158	4/24/2009	133.8
48158	5/9/2003	123.4
48158	11/11/2002	90.0
48158	4/17/2009	87.6
48158	2/2/2006	87.0
48158	4/17/2009	81.1
48158	3/1/1999	79.9
48158	12/16/2002	73.8
48158	11/8/2004	70.6
48158	1/28/2003	66.9
48158	2/6/2003	25.2
48158	12/7/2009	18.0
48158	2/13/2006	17.7
48158	4/18/2009	56.2
48158	11/20/1995	51.7
48158	4/16/2009	44.2
48158	2/17/2006	41.0
48158	2/26/2004	22.4
48158	9/16/1996	16.7
48158	1/26/2009	16.6
48158	10/26/1996	15.8
48158	11/2/2002	15.6
48158	8/12/2006	14.1
48158	2/23/2004	13.9
48158	12/22/2003	13.8
48158	11/28/2005	13.8
48158	2/6/2006	15.3
48158	4/23/1998	14.7
48158	1/27/2001	14.2
48158	3/15/2005	13.3
48158		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

	2/13/2004		12.7
48158	2/26/2009		12.6
48158	12/28/2009		12.5
48158	2/4/2006		8.9
48158	2/27/2006		8.9
48158	11/18/2000		8.9
48158	2/6/2006		11.1
48158	3/6/2003		10.0
48158	1/10/1995		10.0
48158	2/25/2003		8.8
48158	3/4/2005		8.8
48158	3/13/2003		10.7
48158	4/11/2000		10.7
48158	1/29/2004		11.4
48158	2/9/2006		10.5
48158	11/26/2001		10.4
48158	11/18/2002		9.6
48158	2/7/2009		10.3
48158	2/28/2004		10.2
48158	3/19/2005		9.5
48158	12/8/2000		9.5
48158	9/15/2008		9.4
48158	2/21/2009		9.4
48158	2/28/2005		2.0
48158	2/13/2006		2.0
48158	3/8/2007		9.2
48158	2/2/2009		8.6
48158	2/27/2009		8.6
48158	3/27/2006		39.7
48158	4/3/2004		35.4
48158	5/9/2003		33.1
48158	3/31/2007		20.8
48158	11/2/2002		32.7
48158	1/25/2003		31.8
48158	2/9/2004		30.8
48158	11/21/2002		29.1
48158	4/20/2007		20.3
48158	2/13/2004		20.2
48158	11/27/2006		19.3
48158	2/9/2009		2.1
48158	3/15/2004		28.6
48158	1/19/2007		2.5
48158	2/14/2002		2.4
48158	2/11/2002		2.2
48158	3/22/1999		2.1
48158	1/16/1995		3.0
48158	3/31/2005		2.7
48158	10/3/2003		2.8
48158	2/17/2006		2.6
48158	3/25/1998		2.9
48158	2/11/2005		2.8
48158	11/16/2002		3.6
48158	4/27/1999		3.8
48158	11/13/2006		3.6
48158	4/2/1999	<	0.3
48158	7/9/2001		3.5
48158			

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

	2/9/2009		3.5
48158	4/9/2002		3.4
48158	1/19/2002		3.4
48158	2/20/2006		3.4
48158	2/21/2006		3.1
48158	2/9/2009		3.1
48158	9/26/2002		3.3
48158	12/9/2002		3.9
48158	2/4/2005		3.9
48158	3/12/2003		3.7
48158	11/6/2004		3.0
48158	2/19/2001		3.9
48158	9/3/1999		3.7
48158	2/8/1999		3.8
48158	2/12/2009		3.7
48158	2/9/2009		3.7
48158	12/19/2007		3.4
48158	12/7/2002		3.6
48158	11/8/2004		1.9
48158	1/25/2003		1.9
48158	1/23/1995		1.9
48158	2/17/2009		1.8
48158	1/31/2006		1.8
48158	2/10/2007		1.7
48158	12/31/1994		1.7
48158	2/14/2004		1.7
48158	8/22/1998		1.6
48158	2/14/2002		1.6
48158	6/29/2002		1.6
48158	2/5/2007		1.6
48158	2/13/2006	<	0.3
48158	5/23/2007	<	0.3
48158	10/30/2006	<	0.3
48158	10/14/2004		0.5
48158	2/18/2005	<	0.3
48158	7/11/2006	<	0.3
48158	5/14/2004	<	0.3
48158	5/14/2004	<	0.3
48158	3/21/2005	<	0.3
48158	11/28/2005	<	0.3
48158	10/16/1995		0.8
48158	3/17/1997		0.8
48158	5/29/2004		0.6
48158	5/15/2004		0.6
48158	6/29/2005		0.6
48158	2/24/2006		0.8
48158	2/12/2007		0.7
48158	2/1/2006		1.3
48158	1/25/2003		1.3
48158	3/15/2004		1.3
48158	10/31/1994		1.2
48158	1/6/1995		1.1
48158	1/10/1995		1.1
48158	2/27/2006		1.1
48158	2/13/2006		1.1
48158	4/13/2004		1.0
48158			

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

	2/26/2001	1.0
48158	2/27/2006	1.0
48158	2/17/2006	1.0

Federal EPA Radon Zone for WASHTENAW County: 1

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 48158

Number of sites tested: 6

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	Not Reported	Not Reported	Not Reported	Not Reported
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	13.583 pCi/L	17%	67%	17%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Department of Natural Resources
Telephone: 517-241-2254

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Data
Source: Department of Environmental Quality
Telephone: 517-335-9218
The data in this file was obtained from Wellogic, the Michigan Department of Environmental Quality Statewide Groundwater Database (SGWD). Wellogic contains approximately 425,000 water well records found within the State of Michigan, and although it represents the best available data, it cannot be considered a complete database of all the wells or well records in existence. Locations of verified municipal and private water well sites compiled from Michigan Department of Public Health, Water Well and Pump Records. Available in the following MI counties: Calhoun, Eaton, Genesee, Ingham, Jackson, Kalamazoo, Kent, Midland, Muskegon, Oakland, Ottawaw, Saginaw, St. Clair, Washtenaw.

OTHER STATE DATABASE INFORMATION

Michigan Oil and Gas Wells
Source: Department of Environmental Quality
Telephone: 517-241-1528
Locations of oil and gas wells are compiled from permit records on file at the Geological Survey Division (GSD), Michigan Department of Natural Resources.

RADON

State Database: MI Radon
Source: Department of Environmental Quality
Telephone: 517-335-9551
Radon Test Results

Michigan Radon Test Results
Source: Department of Environmental Quality
Telephone: 517-335-8037
These results are from test kits distributed by the local health departments and used by Michigan residents. There is no way of knowing whether the devices were used properly, whether there are duplicates (or repeat verification) test (i.e., more than one sample per home), etc.

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

STREET AND ADDRESS INFORMATION

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Southern Portions
10617 Lawrence Road
Brooklyn, MI 49230

Inquiry Number: 7877168.2s
January 22, 2025

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E1527 - 21), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E2247 - 16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E1528 - 22) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

10617 LAWRENCE ROAD
BROOKLYN, MI 49230

COORDINATES

Latitude (North):	42.1085890 - 42° 6' 30.92''
Longitude (West):	84.1496210 - 84° 8' 58.63''
Universal Tranverse Mercator:	Zone 16
UTM X (Meters):	735676.3
UTM Y (Meters):	4665551.5
Elevation:	1035 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	14450260 ONSTED, MI
Version Date:	2019
Northeast Map:	14450238 MANCHESTER, MI
Version Date:	2019
Southeast Map:	14450292 TIPTON, MI
Version Date:	2019
Northwest Map:	14450254 NORVELL, MI
Version Date:	2019

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20200701
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
10617 LAWRENCE ROAD
BROOKLYN, MI 49230

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	BOUDREAU-DEARBORN HE		ENVIRO	Lower	1 ft.
A2	JOHNSON BEACH-TOLEDO		ENVIRO	Lower	1 ft.
B3	GT RANCH LLC	14950 HORNING RD	LUST, UST, WDS	Lower	129, 0.024, NE
B4	TROLZ FARM	14950 HORNING RD	RCRA NonGen / NLR, FINDS, ECHO	Lower	129, 0.024, NE
B5	GLYNN TROLZ & ASSOCI	14950 HORNING RD	UST FINDER RELEASE	Lower	129, 0.024, NE
B6	GT RANCH LLC	14950 HORNING RD	UST FINDER	Lower	129, 0.024, NE
B7	AMERIGAS PROPANE	7757 E TOLEDO RD	AST	Lower	318, 0.060, NE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

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

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

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

Lists of Federal Delisted NPL sites

Delisted NPL ---------- National Priority List Deletions

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS ---------- Corrective Action Report

Lists of Federal RCRA TSD facilities

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

Lists of Federal RCRA generators

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-VSQG ---------- RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System

US ENG CONTROLS Engineering Controls Sites List
US INST CONTROLS Institutional Controls Sites List

Federal ERNS list

ERNS Emergency Response Notification System

Lists of state- and tribal hazardous waste facilities

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

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF Solid Waste Facilities Database

Lists of state and tribal leaking storage tanks

INDIAN LUST Leaking Underground Storage Tanks on Indian Land

Lists of state and tribal registered storage tanks

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

State and tribal institutional control / engineering control registries

AUL Engineering and Institutional Controls

Lists of state and tribal voluntary cleanup sites

INDIAN VCP Voluntary Cleanup Priority Listing

Lists of state and tribal brownfield sites

BROWNFIELDS Brownfields and UST Site Database

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

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

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL Delisted National Clandestine Laboratory Register

INVENTORY	Inventory of Facilities
PART 201	Part 201 Site List
CDL	Clandestine Drug Lab Listing
DEL PART 201	Delisted List of Contaminated Sites
US CDL	National Clandestine Laboratory Register

Local Land Records

LIENS	Lien List
LIENS 2	CERCLA Lien Information

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
SPILLS	Pollution Emergency Alerting System

Other Ascertainable Records

FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
MINES MRDS	Mineral Resources Data System
ABANDONED MINES	Abandoned Mines
FINDS	Facility Index System/Facility Registry System
DOCKET HWC	Hazardous Waste Compliance Docket Listing
ECHO	Enforcement & Compliance History Information
UXO	Unexploded Ordnance Sites

FUELS PROGRAM	EPA Fuels Program Registered Listing
PFAS NPL	Superfund Sites with PFAS Detections Information
PFAS FEDERAL SITES	Federal Sites PFAS Information
PFAS TRIS	List of PFAS Added to the TRI
PFAS TSCA	PFAS Manufacture and Imports Information
PFAS RCRA MANIFEST	PFAS Transfers Identified In the RCRA Database Listing
PFAS ATSDR	PFAS Contamination Site Location Listing
PFAS WQP	Ambient Environmental Sampling for PFAS
PFAS NPDES	Clean Water Act Discharge Monitoring Information
PFAS PROJECT	NORTHEASTERN UNIVERSITY PFAS PROJECT
PFAS ECHO	Facilities in Industries that May Be Handling PFAS Listing
PFAS ECHO FIRE TRAIN	Facilities in Industries that May Be Handling PFAS Listing
PFAS PT 139 AIRPORT	All Certified Part 139 Airports PFAS Information Listing
AQUEOUS FOAM NRC	Aqueous Foam Related Incidents Listing
BIOSOLIDS	ICIS-NPDES Biosolids Facility Data
E MANIFEST	Hazardous Waste Electronic Manifest System
PFAS	PFAS Contaminated Sites Listing
AQUEOUS FOAM	Aqueous Film Forma Foam Listing
AIRS	Permit and Emissions Inventory Data
ASBESTOS	ASBESTOS
BEA	Baseline Environmental Assessment Database
COAL ASH	Coal Ash Disposal Sites
DRYCLEANERS	Drycleaning Establishments
Financial Assurance	Financial Assurance Information Listing
LEAD	Lead Information Registry Listing
LEAD	Lead Information Registry Listing
MANIFEST	Hazardous Waste Manifest Data
NPDES	List of Active NPDES Permits
UIC	Underground Injection Wells Database
WDS	Waste Data System
SSCUP	State Owned Sites Cleanup Program List

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto	EDR Exclusive Historical Auto Stations
EDR Hist Cleaner	EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA PART 201	Recovered Government Archive State Hazardous Waste Facilities List
RGA LF	Recovered Government Archive Solid Waste Facilities List
RGA LUST	Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

EXECUTIVE SUMMARY

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

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

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

STANDARD ENVIRONMENTAL RECORDS

Lists of state and tribal leaking storage tanks

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

A review of the LUST list, as provided by EDR, and dated 08/01/2024 has revealed that there is 1 LUST site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
GT RANCH LLC	***14950 HORNING RD***	***NE 0 - 1/8 (0.024 mi.)***	***B3***	***10***
Release Status: Closed Substance Release: Diesel Facility Id: 12122 Facility Id: 00012122				

Lists of state and tribal registered storage tanks

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

A review of the UST list, as provided by EDR, has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
GT RANCH LLC	***14950 HORNING RD***	***NE 0 - 1/8 (0.024 mi.)***	***B3***	***10***
Database: UST, Date of Government Version: 07/24/2024 Tank Status: Removed from Ground Facility Type: CLOSED Facility Id: 00012122				

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

A review of the AST list, as provided by EDR, and dated 08/01/2024 has revealed that there is 1 AST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
AMERIGAS PROPANE Facility Id: 92046003 Removed/Closed Date: 04/10/2013 Tank Status: Removed from Premises	7757 E TOLEDO RD	NE 0 - 1/8 (0.060 mi.)	B7	17

ADDITIONAL ENVIRONMENTAL RECORDS

Other Ascertainable Records

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

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 09/16/2024 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
TROLZ FARM EPA ID:: MIR000039875	***14950 HORNING RD***	***NE 0 - 1/8 (0.024 mi.)***	***B4***	***12***

UST FINDER: EPA developed UST Finder, a web map application containing a comprehensive, state-sourced national map of underground storage tank (UST) and leaking UST (LUST) data. It provides the attributes and locations of active and closed USTs, UST facilities, and LUST sites from states and from Tribal lands and US territories . UST Finder contains information about proximity of UST facilities and LUST sites to: surface and groundwater public drinking water protection areas; estimated number of private domestic wells and number of people living nearby; and flooding and wildfires.

A review of the UST FINDER list, as provided by EDR, and dated 06/08/2023 has revealed that there is 1 UST FINDER site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
GT RANCH LLC	14950 HORNING RD	NE 0 - 1/8 (0.024 mi.)	B6	16

UST FINDER RELEASE: US EPA's UST Finder data is a national composite of leaking underground storage tanks. This data contains information about, and locations of, leaking underground storage tanks. Data was collected from state sources and standardized into a national profile by EPA's Office of Underground Storage Tanks, Office of Research and Development, and the Association of State and Territorial Solid Waste Management Officials.

A review of the UST FINDER RELEASE list, as provided by EDR, and dated 06/08/2023 has revealed that

there is 1 UST FINDER RELEASE site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
GLYNN TROLZ & ASSOCI	14950 HORNING RD	NE 0 - 1/8 (0.024 mi.)	B5	15

ENVIRO: MiEnviro is permitting and compliance for air quality and water resources, including National Pollutant Discharge Elimination System (NPDES), storm water, groundwater discharge, aquatic nuisance control, Part 41 construction, medical waste registrations, and land and water interface permits.

A review of the ENVIRO list, as provided by EDR, and dated 09/30/2024 has revealed that there are 2 ENVIRO sites within approximately 0.001 miles of the target property.

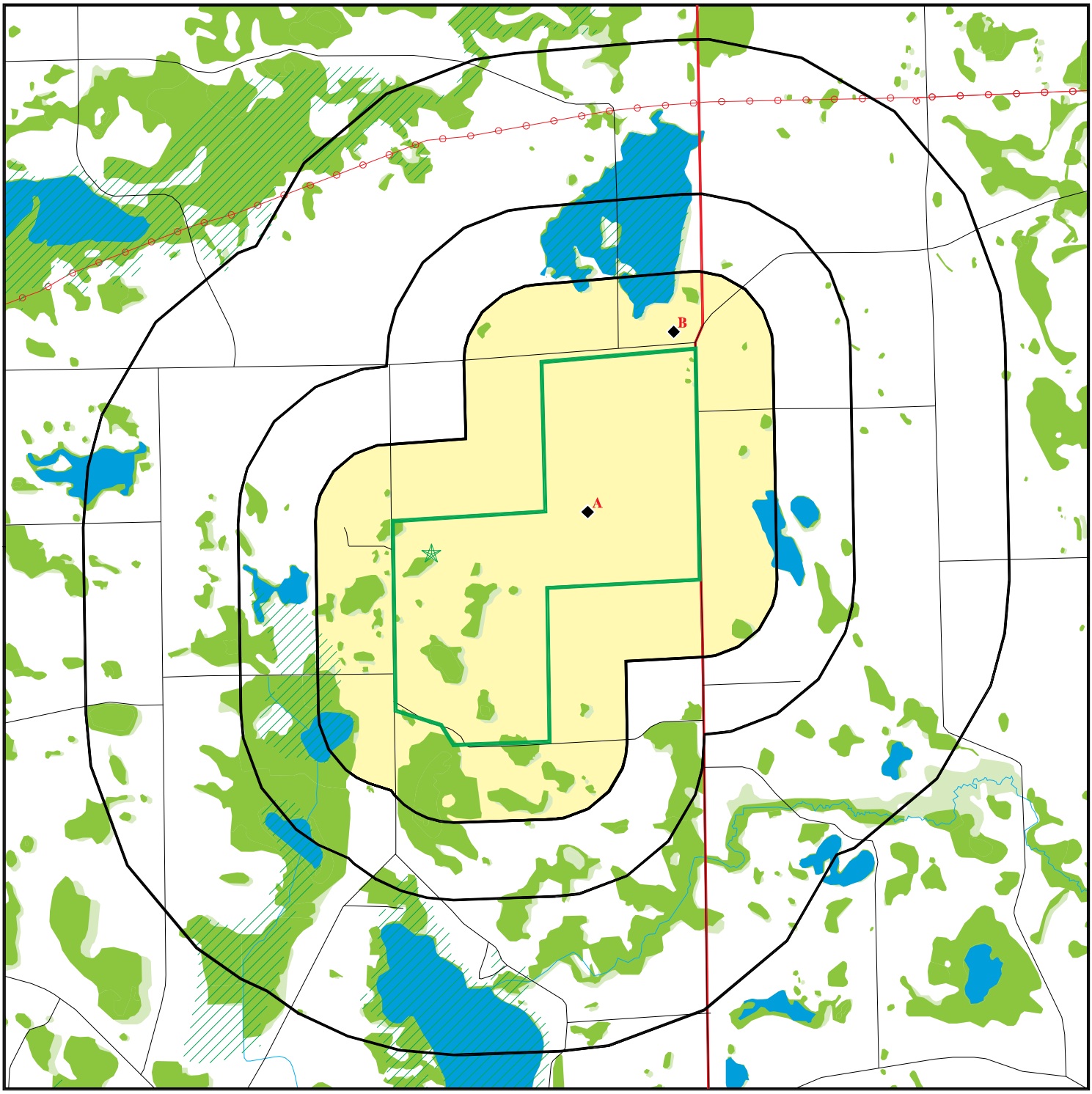
Lower Elevation	Address	Direction / Distance	Map ID	Page
BOUDREAU-DEARBORN HE		0 - 1/8 (0.000 mi.)	A1	8
JOHNSON BEACH-TOLEDO		0 - 1/8 (0.000 mi.)	A2	8

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 1 records.

Site Name	Database(s)
GORMLEY BARTLETT LANDFILL	ODI

OVERVIEW MAP - 7877168.2S



0 1/4 1/2 1 Miles

N

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands

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

SITE NAME: Southern Portions ADDRESS: 10617 Lawrence Road Brooklyn MI 49230 LAT/LONG: 42.108589 / 84.149621	CLIENT: Applied Science & Technology CONTACT: BAILEY BISHOP INQUIRY #: 7877168.2s DATE: January 22, 2025 1:40 pm

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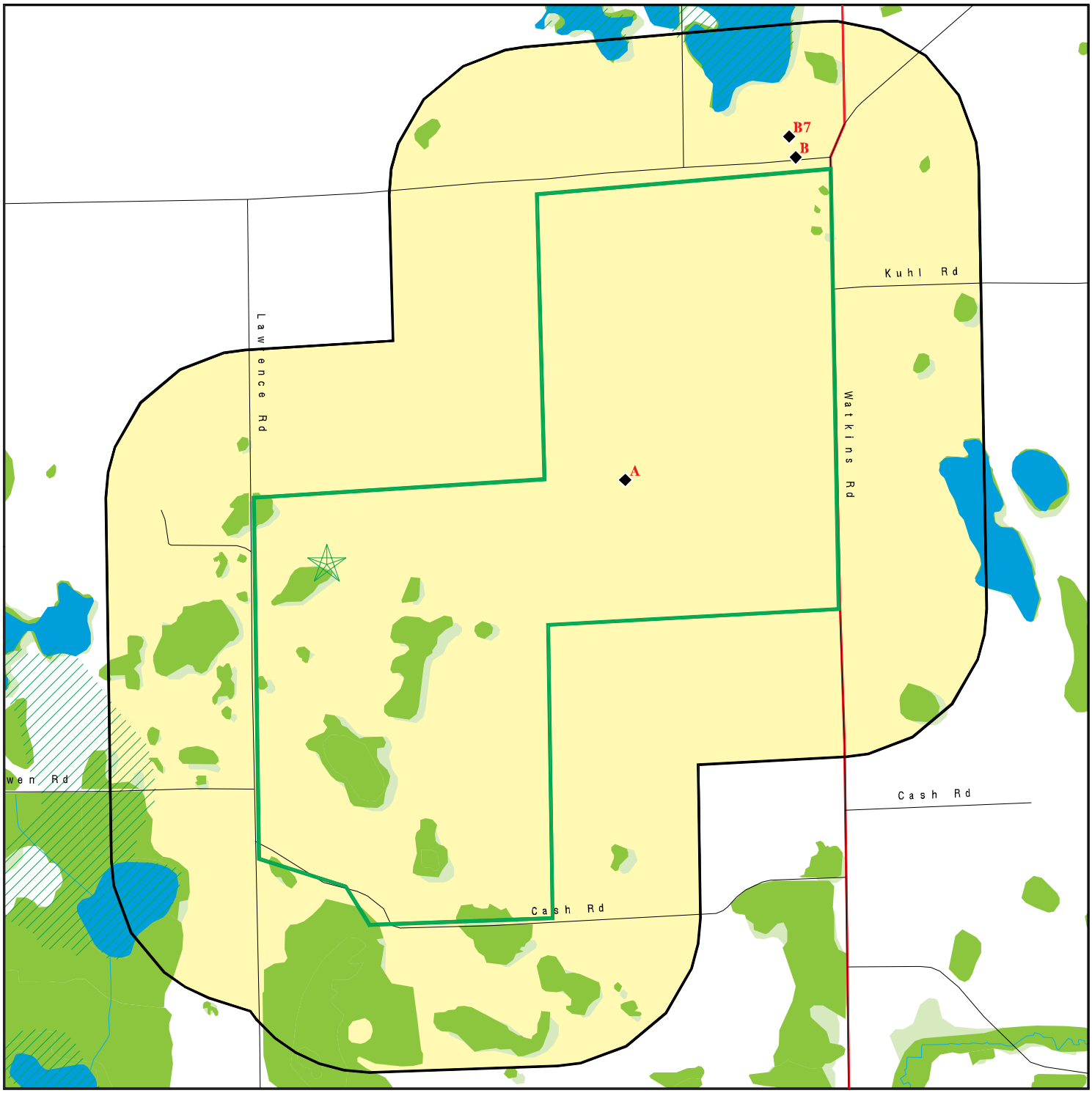
DETAIL MAP - 7877168.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands

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

SITE NAME: Southern Portions ADDRESS: 10617 Lawrence Road Brooklyn MI 49230 LAT/LONG: 42.108589 / 84.149621	CLIENT: Applied Science & Technology CONTACT: BAILEY BISHOP INQUIRY #: 7877168.2s DATE: January 22, 2025 1:44 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Lists of Federal NPL (Superfund) sites								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Lists of Federal Delisted NPL sites								
Delisted NPL	1.000		0	0	0	0	NR	0
Lists of Federal sites subject to CERCLA removals and CERCLA orders								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Lists of Federal CERCLA sites with NFRAP								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA facilities undergoing Corrective Action								
CORRACTS	1.000		0	0	0	0	NR	0
Lists of Federal RCRA TSD facilities								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA generators								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
Lists of state- and tribal hazardous waste facilities								
SHWS	1.000		0	0	0	0	NR	0
Lists of state and tribal landfills and solid waste disposal facilities								
SWF/LF	0.500		0	0	0	NR	NR	0
Lists of state and tribal leaking storage tanks								
LUST	0.500		1	0	0	NR	NR	1

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
Lists of state and tribal registered storage tanks								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		1	0	NR	NR	NR	1
AST	0.250		1	0	NR	NR	NR	1
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
AUL	0.500		0	0	0	NR	NR	0
Lists of state and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
Lists of state and tribal brownfield sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
HIST LF	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
INVENTORY	0.500		0	0	0	NR	NR	0
PART 201	1.000		0	0	0	0	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
DEL PART 201	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
SPILLS	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		1	0	NR	NR	NR	1

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
MINES MRDS	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
PFAS NPL	0.250		0	0	NR	NR	NR	0
PFAS FEDERAL SITES	0.250		0	0	NR	NR	NR	0
PFAS TRIS	0.250		0	0	NR	NR	NR	0
PFAS TSCA	0.250		0	0	NR	NR	NR	0
PFAS RCRA MANIFEST	0.250		0	0	NR	NR	NR	0
PFAS ATSDR	0.250		0	0	NR	NR	NR	0
PFAS WQP	0.250		0	0	NR	NR	NR	0
PFAS NPDES	0.250		0	0	NR	NR	NR	0
PFAS PROJECT	0.250		0	0	NR	NR	NR	0
PFAS ECHO	0.250		0	0	NR	NR	NR	0
PFAS ECHO FIRE TRAIN	0.250		0	0	NR	NR	NR	0
PFAS PT 139 AIRPORT	0.250		0	0	NR	NR	NR	0
AQUEOUS FOAM NRC	0.250		0	0	NR	NR	NR	0
BIOSOLIDS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST FINDER	0.250		1	0	NR	NR	NR	1
UST FINDER RELEASE	0.500		1	0	0	NR	NR	1
E MANIFEST	0.250		0	0	NR	NR	NR	0
PFAS	0.250		0	0	NR	NR	NR	0
AQUEOUS FOAM	0.250		0	0	NR	NR	NR	0
AIRS	0.001		0	NR	NR	NR	NR	0
ASBESTOS	0.001		0	NR	NR	NR	NR	0
BEA	0.500		0	0	0	NR	NR	0
COAL ASH	0.500		0	0	0	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
LEAD	0.001		0	NR	NR	NR	NR	0
LEAD	0.001		0	NR	NR	NR	NR	0
MANIFEST	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
ENVIRO	0.001		2	NR	NR	NR	NR	2
SSCUP	0.500		0	0	0	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA PART 201	0.001		0	NR	NR	NR	NR	0
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	8	0	0	0	0	8

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **BOUDREAU-DEARBORN HEIGHTS: 99-13-0123-P** **ENVIRO** **S129763584**
N/A

< 1/8
1 ft.

, MI

Site 1 of 2 in cluster A

Relative:
Lower

Actual:
1011 ft.

ENVIRO:
Site ID: 2753301593843419586
Name: BOUDREAU-DEARBORN HEIGHTS: 99-13-0123-P
Address: Not reported
Latitude: 42.1106
Longitude: -84.1398

Site URL:

Document File:
Site ID: 2753301593843419586
Document ID: 1552738183257741298
Document Name: 99130123 - Permit - 1999-04-07.pdf
Document Type: Conversion - Permit
Document Description: Permit: 99-13-0123-P v1.0. 99130123 - Permit - 1999-04-07
Document Date: 4/7/1999 12:00:00 AM
Site Number: 99-13-0123-P

URL:

Environmental Intentions:
Site ID: 2753301593843419586
Site Number: 99-13-0123-P
Program ID: 99-13-0123-P
Start Date Description: Effective
Start Date: 4/7/1999 12:00:00 AM
End Date Description: Expiration / Termination
End Date: 12/31/1999 12:00:00 AM
Type Code: RESC_MINR_PRJCT
ENV INT Number: 99-13-0123-P
Type Description Long: Permit Number: 99-13-0123-P v1. 0. Category: Resources Minor Project. Status: Expired
Type Description: Resources Minor Project
Contact Name: Inactive Staff
ENV INT Notes: Not reported

A2 **JOHNSON BEACH-TOLEDO: 11-38-0019-P** **ENVIRO** **S129899743**
N/A

< 1/8
1 ft.

, MI

Site 2 of 2 in cluster A

Relative:
Lower

Actual:
1011 ft.

ENVIRO:
Site ID: 8506264942750980960
Name: JOHNSON BEACH-TOLEDO: 11-38-0019-P
Address: Not reported
Latitude: 42.1106
Longitude: -84.1398

Site URL:

Document File:
Site ID: 8506264942750980960

JOHNSON BEACH-TOLEDO: 11-38-0019-P (Continued) **S129899743**

Document ID: -1853588342568453825
Document Name: 11380019 - Placard - 2011-07-11.pdf
Document Type: Conversion - Permit
Document Description: Permit: 11-38-0019-P v1.0. 11380019 - Placard - 2011-07-11
Document Date: 7/11/2011 12:00:00 AM
Site Number: 11-38-0019-P

URL:

Site ID: 8506264942750980960
Document ID: -8040220697070001576
Document Name: 11380019 - Permit Review Report - 2011-07-01.pdf
Document Type: Conversion - Permit
Document Description: Permit: 11-38-0019-P v1.0. 11380019 - Permit Review Report - 2011-07-01
Document Date: 7/1/2011 12:00:00 AM
Site Number: 11-38-0019-P

URL:

Site ID: 8506264942750980960
Document ID: -4276252719791919862
Document Name: 11380019 - Modification - 2011-07-11.pdf
Document Type: Conversion - Permit
Document Description: Permit: 11-38-0019-P v1.0. 11380019 - Modification - 2011-07-11
Document Date: 7/11/2011 12:00:00 AM
Site Number: 11-38-0019-P

URL:

Site ID: 8506264942750980960
Document ID: 7217167897407136669
Document Name: 11380019 - Photos / Scans - 2011-06-09.pdf
Document Type: Conversion - Permit
Document Description: Permit: 11-38-0019-P v1.0. 11380019 - Photos / Scans - 2011-06-09
Document Date: 6/9/2011 12:00:00 AM
Site Number: 11-38-0019-P

URL:

Site ID: 8506264942750980960
Document ID: -3492037895550868550
Document Name: 11380019 - f Signed Permit - 2011-07-12.pdf
Document Type: Conversion - Permit
Document Description: Permit: 11-38-0019-P v1.0. 11380019 - f Signed Permit - 2011-07-12
Document Date: 7/12/2011 12:00:00 AM
Site Number: 11-38-0019-P

URL:

Site ID: 8506264942750980960
Document ID: -2273718310720439181
Document Name: 11380019 - Permit - 2011-07-11.pdf
Document Type: Conversion - Permit
Document Description: Permit: 11-38-0019-P v1.0. 11380019 - Permit - 2011-07-11
Document Date: 7/11/2011 12:00:00 AM
Site Number: 11-38-0019-P

JOHNSON BEACH-TOLEDO: 11-38-0019-P (Continued) **S129899743**

URL:

Environmental Intentions:

Site ID:	8506264942750980960
Site Number:	11-38-0019-P
Program ID:	11-38-0019-P
Start Date Description:	Effective
Start Date:	7/11/2011 12:00:00 AM
End Date Description:	Expiration / Termination
End Date:	7/11/2016 12:00:00 AM
Type Code:	RESC_MINR_PRJCT
ENV INT Number:	11-38-0019-P
Type Description Long:	Permit Number: 11-38-0019-P v1. 0. Category: Resources Minor Project. Status: Expired
Type Description:	Resources Minor Project
Contact Name:	Justin Pung | (517) 449-6678 | pungj2@michigan.gov
ENV INT Notes:	Not reported

B3 **GT RANCH LLC** **LUST U003102882**
NE **14950 HORNING RD** **UST N/A**
< 1/8 **BROOKLYN, MI 49230** **WDS**
0.024 mi.
129 ft. **Site 1 of 5 in cluster B**

Relative:
Lower

Actual:
1011 ft.

LUST:

Name:	GT RANCH LLC
Address:	14950 HORNING RD
City,State,Zip:	BROOKLYN, MI 49230
Facility ID:	12122
Source:	Not reported
Owner Name:	Angeli, Rick
Owner Address:	Not reported
Owner City,St,Zip:	Not reported
Owner Contact:	Not reported
Owner Phone:	Not reported
Country:	Not reported
District:	Jackson
Site Name:	Glynn Trolz & Associates Inc
Latitude:	42.22782
Longitude:	-84.40412
Date of Collection:	Not reported
Method of Collection:	The geographic coordinate determination method based on GPS code measurements (pseudo range) standard positioning service (SA Off).
Accuracy:	10
Accuracy Value Unit:	Not reported
Horizontal Data:	North American Datum of 1983
Point Line Area:	Not reported
Desc Category:	Not reported
Regulatory Program:	Not reported
Risk Condition:	Not reported
Project Manager:	Not reported
Senate District:	Not reported
House District:	Not reported
US Congressional District:	Not reported

GT RANCH LLC (Continued) **U003102882**

Leak Number: 28555
Release Date: 02/16/1998
Substance Released: Not reported
Release Status: Closed
Release Closed Date: 05/11/1998

Leak Number: C-0119-98
Release Date: 02/16/1998
Substance Released: Diesel
Release Status: Closed
Release Closed Date: 05/11/1998

UST:
Name: GT RANCH LLC
Address: 14950 HORNING RD
City,State,Zip: BROOKLYN 49230-9545
Facility Type: CLOSED
Facility ID: 00012122
Owner Name: GT RANCH LLC
Owner Address: PO BOX 249
Owner City: JACKSON
Owner State: MI
Owner Zip: 49204
Owner Contact: Not reported
Owner Phone: 5177640700
Contact: Mr Gary Trolz
Contact Phone: (517) 764-0700
Date of Collection: 10/21/2003
Accuracy: 10
Horizontal Datum: NAD83
Accuracy Value Unit: METERS
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: GPS Code Meas. Standard Positioning Service SA Off
District: Region 2 - Jackson District Office
Tank ID: 2
Capacity: 7200
Tank Status: Removed from Ground
Substance: Gasoline
Install Date: 04/01/1988
Remove Date: 04/14/2015
Tank Number: Not reported
Tank Details Compartments: Not reported
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Not reported
Piping Type: Not reported
Tank Construction: Not reported
Impressed Device: Not reported
Latitude: 42.22782
Longitude: -84.40412

Name: GT RANCH LLC
Address: 14950 HORNING RD
City,State,Zip: BROOKLYN 49230-9545
Facility Type: CLOSED
Facility ID: 00012122

GT RANCH LLC (Continued) **U003102882**

Owner Name:	GT RANCH LLC
Owner Address:	PO BOX 249
Owner City:	JACKSON
Owner State:	MI
Owner Zip:	49204
Owner Contact:	Not reported
Owner Phone:	5177640700
Contact:	Mr Gary Trolz
Contact Phone:	(517) 764-0700
Date of Collection:	10/21/2003
Accuracy:	10
Horizontal Datum:	NAD83
Accuracy Value Unit:	METERS
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	GPS Code Meas. Standard Positioning Service SA Off
District:	Region 2 - Jackson District Office
Tank ID:	1
Capacity:	3000
Tank Status:	Removed from Ground
Substance:	Diesel
Install Date:	05/07/1978
Remove Date:	02/09/1998
Tank Number:	Not reported
Tank Details Compartments:	Not reported
Tank Release Detection:	Not reported
Pipe Release Detection:	Not reported
Piping Material:	Not reported
Piping Type:	Not reported
Tank Construction:	Not reported
Impressed Device:	Not reported
Latitude:	42.22782
Longitude:	-84.40412

WDS:

Name:	TROLZ FARM
Address:	14950 HORNING RD
City,State,Zip:	BROOKLYN, MI 49230
Site Id:	MIR000039875
WMD Id:	413137
Site Specific Name:	TROLZ FARM
Mailing Address:	PO BOX 249
Mailing City/State/Zip:	49204
Mailing County:	JACKSON

B4 **TROLZ FARM** **RCRA NonGen / NLR** **1001488180**
NE **14950 HORNING RD** **FINDS** **MIR000039875**
< 1/8 **BROOKLYN, MI 49230** **ECHO**
0.024 mi.
129 ft. **Site 2 of 5 in cluster B**

Relative:
Lower

Actual:
1011 ft.

RCRA Listings:

Date Form Received by Agency:	20010314
Handler Name:	Trolz Farm
Handler Address:	14950 Horning Rd
Handler City,State,Zip:	BROOKLYN, MI 49230

TROLZ FARM (Continued) **1001488180**

EPA ID:	MIR000039875
Contact Name:	FRANK MALEWITZ
Contact Address:	14950 HORNING RD
Contact City,State,Zip:	BROOKLYN, MI 49230
Contact Telephone:	517-764-0700
Contact Fax:	Not reported
Contact Email:	Not reported
Contact Title:	Not reported
EPA Region:	05
Land Type:	Private
Federal Waste Generator Description:	Not a generator, verified
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Not reported
State District Owner:	Not reported
State District:	Not reported
Mailing Address:	PO BOX 249
Mailing City,State,Zip:	JACKSON, MI 49204
Owner Name:	Trolz Glynn And Associates Inc
Owner Type:	Private
Operator Name:	Trolz Glynn And Associates Inc
Operator Type:	Private
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20110303
Recognized Trader-Importer:	No

TROLZ FARM (Continued) **1001488180**

Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Hazardous Waste Summary:

Waste Code:	D001
Waste Description:	Ignitable Waste

Handler - Owner Operator:

Owner/Operator Indicator:	Operator
Owner/Operator Name:	TROLZ GLYNN AND ASSOCIATES INC
Legal Status:	Private
Date Became Current:	20010314
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name:	TROLZ GLYNN AND ASSOCIATES INC
Legal Status:	Private
Date Became Current:	20010314
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	20010314
Handler Name: TROLZ FARM	
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

List of NAICS Codes and Descriptions:

NAICS Code:	11131
NAICS Description:	ORANGE GROVES

TROLZ FARM (Continued) **1001488180**

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

FINDS:
Registry ID: 110003710324

Click Here for FRS Facility Detail Report:

Environmental Interest/Information System:
The Resource Conservation and Recovery Act Information System (RCRAInfo) is EPA's comprehensive information system in support of the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. It tracks many types of information about generators, transporters, treaters, storers, and disposers of hazardous waste.

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

ECHO:
Envid: 1001488180
Registry ID: 110003710324

DFR URL:
Name: TROLZ FARM
Address: 14950 HORNING RD
City,State,Zip: BROOKLYN, MI 49230

B5 **GLYNN TROLZ & ASSOCIATES INC** **UST FINDER RELEASE** **1029028803**
NE **14950 HORNING RD** **N/A**
< 1/8 **BROOKLYN, MI 49204**
0.024 mi.
129 ft. **Site 3 of 5 in cluster B**

Relative:
Lower

Actual:
1011 ft.

UST FINDER RELEASE:
Object ID: 516414
Facility ID: MI00012122
Lust ID: MIC-0119-98
Name: GLYNN TROLZ & ASSOCIATES INC
Address: 14950 HORNING RD
City,State,Zip: BROOKLYN, MI 49204
Address Match Type: Not reported
Reported Date: 1998/02/16 15:59:59+00
Status: No Further Action
Substance: Diesel
Population within 1500ft: 1269
Domestic Wells within 1500ft: 1
Land Use: Developed, High Intensity
Within SPA: No
SPA PWS Facility ID: Not reported
SPA Water Type: Not reported
SPA Facility Type: Not reported
SPA HUC12: Not reported

GLYNN TROLZ & ASSOCIATES INC (Continued) **1029028803**

Within WHPA:	Yes
WHPA PWS Facility ID:	MI0003470_1664
WHPA Water Type:	GW - Ground water
WHPA Facility Type:	WL - Well
WHPA HUC12:	040500040105
Within 100yr Floodplain:	No
Tribe:	Not reported
EPA Region:	5
NFA Letter 1:	Not reported
NFA Letter 2:	Not reported
NFA Letter 3:	Not reported
NFA Letter 4:	Not reported
Closed With Residual Contaminate:	Not reported
Coordinate Source:	State
X Coord:	-84.40412
Y Coord:	42.2278200000001
Latitude:	42.22782
Longitude:	-84.40412

B6 **GT RANCH LLC** **UST FINDER** **1028423213**
NE **14950 HORNING RD** **N/A**
< 1/8 **BROOKLYN, MI**
0.024 mi.
129 ft. **Site 4 of 5 in cluster B**

Relative: **Lower**
Actual: **1011 ft.**

UST FINDER:

Object ID:	206909
Facility ID:	MI12122
Name:	GT RANCH LLC
Address:	14950 HORNING RD
City,State,Zip:	BROOKLYN, MI
Address Match Type:	StreetAddress
Open USTs:	0
Closed USTs:	2
TOS USTs:	0
Population 1500ft:	6
Private Wells 1500ft:	3
Within 100yr Floodplain:	No
Land Use:	Non-Developed
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported
SPA HUC12:	Not reported
Within WHPA:	No
WHPA PWS Facility ID:	Not reported
WHPA Water Type:	Not reported
WHPA Facility Type:	Not reported
WHPA HUC12:	Not reported
Facility Status:	Closed UST(s)
Date of Last Inspection:	Not reported
EPA Region:	5
Tribe:	Not reported
Coordinate Source:	Geocode
X Coord:	-84.13352221
Y Coord:	42.1185741100001
Latitude:	42.11857411
Longitude:	-84.13352221

GT RANCH LLC (Continued) **1028423213**

UST FINDER:

Object ID:	779916
Facility ID:	MI12122
Tank ID:	MIUTK-082342-15
Tank Status:	Closed
Installation Date:	1988/04/01 16:00:00+00
Removal Date:	2015/04/14 15:59:59+00
Tank Capacity:	7200
Substances:	Gasoline,
Tank Wall Type:	Not reported

Object ID:	796202
Facility ID:	MI12122
Tank ID:	MIUTK-082338-15
Tank Status:	Closed
Installation Date:	1978/05/07 16:00:00+00
Removal Date:	1998/02/09 15:59:59+00
Tank Capacity:	3000
Substances:	Diesel,
Tank Wall Type:	Not reported

B7 **AMERIGAS PROPANE** **AST** **A100002205**
NE **7757 E TOLEDO RD** **N/A**
< 1/8 **BLISSFIELD, MI 49228**
0.060 mi.
318 ft. **Site 5 of 5 in cluster B**

Relative: **Lower**

Actual: **1002 ft.**

AST:

Name:	AMERIGAS PROPANE
Address:	7757 E TOLEDO RD
City:	BLISSFIELD
Zip:	49228
Facility ID:	92046003
Owner Name:	AMERIGAS PROPANE
Owner Address:	PO BOX 965
Owner City,St,Zip:	VALLEY FERGE, PA 19482
District:	2
Date of Collection:	10/21/2003
Accuracy:	10 METERS
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Description Category:	Plant Entrance (Freight)
Method of Collection:	GPS Code Meas. Standard Positioning Service SA Off
Horizontal Datum:	NAD83
Latitude:	42.1190180
Longitude:	-84.134401

Tank Id:	ATK-060305-15
Tank Status:	Removed from Premises
Capacity (in gallons):	18000
Installation Date:	03/28/1979
Substance Stored:	Other
Removed/Closed Date:	04/10/2013

Tank Id:	ATK-026648-15

AMERIGAS PROPANE (Continued) **A100002205**

Tank Status: Removed from Premises
Capacity (in gallons): 8000
Installation Date: 03/28/1979
Substance Stored: Other
Removed/Closed Date: 04/10/2013

Tank Id: ATK-015711-15
Tank Status: Removed from Premises
Capacity (in gallons): 30000
Installation Date: 03/28/1979
Substance Stored: Other
Removed/Closed Date: 04/10/2013

Count: 1 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BROOKLYN	1007444596	GORMLEY BARTLETT LANDFILL	ON CASE RD 1/2 MI E OF HORNING		ODI

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: EPA
Telephone: N/A
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 10
Telephone 206-553-8665

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: EPA
Telephone: N/A
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Lists of Federal Delisted NPL sites

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: EPA
Telephone: N/A
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Quarterly

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/20/2024
Date Data Arrived at EDR: 12/18/2024
Date Made Active in Reports: 12/20/2024
Number of Days to Update: 2

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 12/18/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Quarterly

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The 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 potential NPL site.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Quarterly

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

Lists of Federal RCRA TSD facilities

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

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

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

Lists of Federal RCRA generators

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

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

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 07/15/2024
Date Data Arrived at EDR: 07/17/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 84

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/13/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 07/24/2024
Date Data Arrived at EDR: 08/08/2024
Date Made Active in Reports: 08/15/2024
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/15/2024
Next Scheduled EDR Contact: 12/02/2024
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 07/24/2024
Date Data Arrived at EDR: 08/08/2024
Date Made Active in Reports: 08/15/2024
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/15/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/11/2024
Date Data Arrived at EDR: 06/17/2024
Date Made Active in Reports: 09/04/2024
Number of Days to Update: 79

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/11/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

Lists of state- and tribal hazardous waste facilities

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

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

Date of Government Version: N/A
Date Data Arrived at EDR: 10/31/2013
Date Made Active in Reports: 11/20/2013
Number of Days to Update: 20

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-284-5103
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: No Update Planned

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF: Solid Waste Facilities Database

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 11/27/2024
Number of Days to Update: 71

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-335-4035
Last EDR Contact: 12/11/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Semi-Annually

Lists of state and tribal leaking storage tanks

LUST: Leaking Underground Storage Tank Sites

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 08/01/2024
Date Data Arrived at EDR: 08/07/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 77

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-9837
Last EDR Contact: 10/30/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/11/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

Lists of state and tribal registered storage tanks

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 08/12/2024
Date Data Arrived at EDR: 10/30/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 76

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

UST 2: Underground Storage Tank Listing
A listing of underground storage tank site locations that have unknown owner information.

Date of Government Version: 01/08/2024
Date Data Arrived at EDR: 01/18/2024
Date Made Active in Reports: 04/09/2024
Number of Days to Update: 82

Source: Department of Licensing & Regulatory Affairs
Telephone: 517-373-1820
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

UST: Underground Storage Tank Facility List
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 07/24/2024
Date Data Arrived at EDR: 08/06/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 78

Source: Department of Licensing & Regulatory Affairs
Telephone: 517-373-1820
Last EDR Contact: 11/06/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Annually

AST: Aboveground Tanks
Registered Aboveground Storage Tanks.

Date of Government Version: 08/01/2024
Date Data Arrived at EDR: 08/07/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 77

Source: Department of Licensing & Regulatory Affairs
Telephone: 517-373-1820
Last EDR Contact: 10/30/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: No Update Planned

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/11/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 07/29/2024
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

AUL: Engineering and Institutional Controls
A listing of sites with institutional and/or engineering controls in place.

Date of Government Version: 08/20/2024
Date Data Arrived at EDR: 08/20/2024
Date Made Active in Reports: 08/21/2024
Number of Days to Update: 1

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-4828
Last EDR Contact: 11/13/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Quarterly

Lists of state and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/10/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 07/08/2021
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

Lists of state and tribal brownfield sites

BROWNFIELDS: Brownfields and USTfield Site Database
All state funded Part 201 and 213 sites, as well as LUST sites that have been redeveloped by private entities using the BEA process. Be aware that this is not a list of all of the potential brownfield sites in Michigan.

Date of Government Version: 09/24/2024
Date Data Arrived at EDR: 10/17/2024
Date Made Active in Reports: 01/06/2025
Number of Days to Update: 81

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-4805
Last EDR Contact: 01/14/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

BROWNFIELDS 2: Brownfields Building and Land Site Locations
A listing of brownfield building and land site locations. The listing is a collaborative effort of Michigan Economic Development Corporation, Michigan Economic Developers Association, Detrot Edison, Detroit Area Commercial Board of Realtors

Date of Government Version: 10/15/2024
Date Data Arrived at EDR: 10/22/2024
Date Made Active in Reports: 01/09/2025
Number of Days to Update: 79

Source: Economic Development Corporation
Telephone: 888-522-0103
Last EDR Contact: 01/13/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
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 takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 09/09/2024
Date Data Arrived at EDR: 09/11/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/24/2025
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

HIST LF: Inactive Solid Waste Facilities
The database contains historical information and is no longer updated.

Date of Government Version: 03/01/1997
Date Data Arrived at EDR: 02/28/2003
Date Made Active in Reports: 03/06/2003
Number of Days to Update: 6

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-335-4034
Last EDR Contact: 02/28/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWRCY: Recycling Facilities
A listing of recycling center locations.

Date of Government Version: 06/14/2024
Date Data Arrived at EDR: 06/14/2024
Date Made Active in Reports: 09/06/2024
Number of Days to Update: 84

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-241-5719
Last EDR Contact: 12/10/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 05/05/2025
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 02/07/2024
Date Data Arrived at EDR: 11/13/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 6

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 12/09/2024
Next Scheduled EDR Contact: 05/05/2025
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 05/20/2024
Date Data Arrived at EDR: 08/19/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 51

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: No Update Planned

PART 201: Part 201 Site List

A Part 201 Listed site is a location that has been evaluated and scored by the DEQ using the Part 201 scoring model. The location is or includes a "facility" as defined by Part 201, where there has been a release of a hazardous substance(s) in excess of the Part 201 residential criteria, and/or where corrective actions have not been completed under Part 201 to meet the applicable cleanup criteria for unrestricted residential use. The Part 201 List does not include all of the sites of contamination that are subject to regulation under Part 201 because owners are not required to inform the DEQ about the sites and can pursue cleanup independently. Sites of environmental contamination that are not known to DEQ are not on the list, nor are sites with releases that resulted in low environmental impact.

Date of Government Version: 10/15/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 01/06/2025
Number of Days to Update: 82

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-284-5103
Last EDR Contact: 01/15/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: No Update Planned

INVENTORY: Inventory of Facilities

The Inventory of Facilities has three data sources: Facilities under Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA) identified through state funded or private party response activities (Projects); Facilities under Part 213, Leaking Underground Storage Tanks of the NREPA; and Facilities identified through submittals of Baseline Environmental Assessments (BEA) submitted pursuant to Part 201 or Part 213 of the NREPA. The Part 201 Projects Inventory does not include all of the facilities that are subject to regulation under Part 201 because owners are not required to inform the Department of Environmental Quality (DEQ) about the facilities and can pursue cleanup independently. Facilities that are not known to DEQ are not on the Inventory, nor are locations with releases that resulted in low environmental impact. Part 213 facilities listed here may have more than one release; a list of releases for which corrective actions have been completed and list of releases for which corrective action has not been completed is located on the Leaking Underground Storage Tanks Site Search webpage. The DEQ may or may not have reviewed and concurred with the conclusion that the corrective actions described in a closure report meets criteria. A BEA is a document that new or prospective property owners/operations disclose to the DEQ identifying the property as a facility pursuant to Part 201 and Part 213. The Inventory of BEA Facilities overlaps in part with the Part 201 Projects facilities and Part 213 facilities. There may be more than one BEA for each facility.

Date of Government Version: 10/15/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 01/06/2025
Number of Days to Update: 82

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-284-5136
Last EDR Contact: 01/14/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Quarterly

CDL: Clandestine Drug Lab Listing

A listing of clandestine drug lab locations.

Date of Government Version: 07/17/2024
Date Data Arrived at EDR: 07/31/2024
Date Made Active in Reports: 08/08/2024
Number of Days to Update: 8

Source: Department of Community Health
Telephone: 517-373-3740
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: No Update Planned

DEL PART 201: Delisted List of Contaminated Sites

A deleted site has been removed from the Part 201 List because information known to the DEQ at the time of the evaluation does not support inclusion on the Part 201 List. This designation is often applied to sites where changes in cleanup criteria resulted in a determination that the site no longer exceeds any applicable cleanup criterion. A delisted site has been removed from the Part 201 List because response actions have reduced the levels of contaminants to concentrations which meet or are below the criteria for unrestricted residential use.

Date of Government Version: 10/15/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 01/06/2025
Number of Days to Update: 82

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-9541
Last EDR Contact: 01/15/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/20/2024
Date Data Arrived at EDR: 08/19/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 51

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Quarterly

Local Land Records

LIENS: Lien List

An Environmental Lien is a charge, security, or encumbrance upon title to a property to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of hazardous substances or petroleum products upon a property, including (but not limited to) liens imposed pursuant to CERCLA 42 USC * 9607(1) and similar state or local laws. In other words: a lien placed upon a property's title due to an environmental condition

Date of Government Version: 07/22/2024
Date Data Arrived at EDR: 10/08/2024
Date Made Active in Reports: 12/23/2024
Number of Days to Update: 76

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-241-7603
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/14/2024
Date Data Arrived at EDR: 06/17/2024
Date Made Active in Reports: 06/24/2024
Number of Days to Update: 7

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 12/11/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

PEAS: Pollution Emergency Alerting System

Environmental pollution emergencies reported to the Department of Environmental Quality such as tanker accidents, pipeline breaks, and release of reportable quantities of hazardous substances.

Date of Government Version: 09/27/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 01/06/2025
Number of Days to Update: 82

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-8427
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Quarterly

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

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

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 10/01/2024
Date Data Arrived at EDR: 11/12/2024
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 70

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 11/12/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 06/07/2021
Date Data Arrived at EDR: 07/13/2021
Date Made Active in Reports: 03/09/2022
Number of Days to Update: 239

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/07/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 12/30/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 07/30/2021
Date Data Arrived at EDR: 02/03/2023
Date Made Active in Reports: 02/10/2023
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 11/04/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/20/2024
Number of Days to Update: 94

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA Watch List

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: No Update Planned

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 10/31/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 06/14/2022
Date Made Active in Reports: 03/24/2023
Number of Days to Update: 283

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/24/2025
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2022
Date Data Arrived at EDR: 11/13/2023
Date Made Active in Reports: 02/07/2024
Number of Days to Update: 86

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 11/14/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 10/15/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 90

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/15/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 10/24/2024
Date Data Arrived at EDR: 11/01/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 18

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 10/01/2024
Date Data Arrived at EDR: 10/23/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 09/19/2023
Date Data Arrived at EDR: 10/03/2023
Date Made Active in Reports: 10/19/2023
Number of Days to Update: 16

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 10/02/2024
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 100

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/12/2024
Date Data Arrived at EDR: 10/17/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 33

Source: Nuclear Regulatory Commission
Telephone: 301-415-0717
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2023
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 90
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 11/20/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 11/20/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 10/31/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 10/04/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 51

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2024
Date Data Arrived at EDR: 10/09/2024
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 93

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 12/30/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2021
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 03/20/2023
Number of Days to Update: 11

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 12/30/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 03/03/2023
Date Data Arrived at EDR: 03/03/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 98

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 05/08/2024
Date Data Arrived at EDR: 08/14/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 14

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 11/14/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 10/01/2024
Date Data Arrived at EDR: 10/02/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 7

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Quarterly

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/06/2024
Date Data Arrived at EDR: 08/14/2024
Date Made Active in Reports: 08/15/2024
Number of Days to Update: 1

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 11/18/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/02/2024
Date Data Arrived at EDR: 08/20/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 50

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System

Mineral Resources Data System

Date of Government Version: 08/23/2022
Date Data Arrived at EDR: 11/22/2022
Date Made Active in Reports: 02/28/2023
Number of Days to Update: 98

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/10/2024
Date Data Arrived at EDR: 09/11/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 69

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 12/10/2024
Next Scheduled EDR Contact: 03/17/2025
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 08/13/2024
Date Data Arrived at EDR: 08/20/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 8

Source: EPA
Telephone: (312) 353-2000
Last EDR Contact: 11/20/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites
A listing of unexploded ordnance site locations

Date of Government Version: 09/06/2023
Date Data Arrived at EDR: 09/13/2023
Date Made Active in Reports: 12/11/2023
Number of Days to Update: 89

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 01/06/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/06/2021
Date Data Arrived at EDR: 05/21/2021
Date Made Active in Reports: 08/11/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 11/13/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information
ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 12/21/2024
Date Data Arrived at EDR: 12/27/2024
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 14

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 12/27/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 11/08/2024
Date Data Arrived at EDR: 11/08/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 67

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 11/08/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Quarterly

PFAS NPL: Superfund Sites with PFAS Detections Information
EPA's Office of Land and Emergency Management and EPA Regional Offices maintain data describing what is known about site investigations, contamination, and remedial actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) where PFAS is present in the environment.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 703-603-8895
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS FEDERAL SITES: Federal Sites PFAS Information
Several federal entities, such as the federal Superfund program, Department of Defense, National Aeronautics and Space Administration, Department of Transportation, and Department of Energy provided information for sites with known or suspected detections at federal facilities.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS TSCA: PFAS Manufacture and Imports Information

EPA issued the Chemical Data Reporting (CDR) Rule under the Toxic Substances Control Act (TSCA) and requires chemical manufacturers and facilities that manufacture or import chemical substances to report data to EPA. EPA publishes non-confidential business information (non-CBI) and includes descriptive information about each site, corporate parent, production volume, other manufacturing information, and processing and use information.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS TRIS: List of PFAS Added to the TRI

Section 7321 of the National Defense Authorization Act for Fiscal Year 2020 (NDAA) immediately added certain per- and polyfluoroalkyl substances (PFAS) to the list of chemicals covered by the Toxics Release Inventory (TRI) under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) and provided a framework for additional PFAS to be added to TRI on an annual basis.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-566-0250
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS RCRA MANIFEST: PFAS Transfers Identified In the RCRA Database Listing

To work around the lack of PFAS waste codes in the RCRA database, EPA developed the PFAS Transfers dataset by mining e-Manifest records containing at least one of these common PFAS keywords: PFAS, PFOA, PFOS, PERFL, AFFF, GENX, GEN-X (plus the VT waste codes). These keywords were searched for in the following text fields: Manifest handling instructions (MANIFEST_HANDLING_INSTR), Non-hazardous waste description (NON_HAZ_WASTE_DESCRIPTION), DOT printed information (DOT_PRINTED_INFORMATION), Waste line handling instructions (WASTE_LINE_HANDLING_INSTR), Waste residue comments (WASTE_RESIDUE_COMMENTS).

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS ATSDR: PFAS Contamination Site Location Listing

PFAS contamination site locations from the Department of Health & Human Services, Center for Disease Control & Prevention. ATSDR is involved at a number of PFAS-related sites, either directly or through assisting state and federal partners. As of now, most sites are related to drinking water contamination connected with PFAS production facilities or fire training areas where aqueous film-forming firefighting foam (AFFF) was regularly used.

Date of Government Version: 06/24/2020
Date Data Arrived at EDR: 03/17/2021
Date Made Active in Reports: 11/08/2022
Number of Days to Update: 601

Source: Department of Health & Human Services
Telephone: 202-741-5770
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 05/05/2025
Data Release Frequency: Varies

PFAS WQP: Ambient Environmental Sampling for PFAS

The Water Quality Portal (WQP) is a part of a modernized repository storing ambient sampling data for all environmental media and tissue samples. A wide range of federal, state, tribal and local governments, academic and non-governmental organizations and individuals submit project details and sampling results to this public repository. The information is commonly used for research and assessments of environmental quality.

Date of Government Version: 12/13/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS NPDES: Clean Water Act Discharge Monitoring Information

Any discharger of pollutants to waters of the United States from a point source must have a National Pollutant Discharge Elimination System (NPDES) permit. The process for obtaining limits involves the regulated entity (permittee) disclosing releases in a NPDES permit application and the permitting authority (typically the state but sometimes EPA) deciding whether to require monitoring or monitoring with limits. Caveats and Limitations: Less than half of states have required PFAS monitoring for at least one of their permittees and fewer states have established PFAS effluent limits for permittees. New rulemakings have been initiated that may increase the number of facilities monitoring for PFAS in the future.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS PROJECT: NORTHEASTERN UNIVERSITY PFAS PROJECT

The PFAS Contamination Site Tracker records qualitative and quantitative data from each site in a chart, specifically examining discovery, contamination levels, government response, litigation, health impacts, media coverage, and community characteristics. All data presented in the chart were extracted from government websites, such as state health departments or the Environmental Protection Agency, and news articles.

Date of Government Version: 05/19/2023
Date Data Arrived at EDR: 04/05/2024
Date Made Active in Reports: 06/06/2024
Number of Days to Update: 62

Source: Social Science Environmental Health Research Institute
Telephone: N/A
Last EDR Contact: 12/05/2024
Next Scheduled EDR Contact: 03/17/2025
Data Release Frequency: Varies

PFAS ECHO: Facilities in Industries that May Be Handling PFAS Listing

Regulators and the public have expressed interest in knowing which regulated entities may be using PFAS. EPA has developed a dataset from various sources that show which industries may be handling PFAS. Approximately 120,000 facilities subject to federal environmental programs have operated or currently operate in industry sectors with processes that may involve handling and/or release of PFAS.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS ECHO FIRE TRAIN: Facilities in Industries that May Be Handling PFAS Listing

A list of fire training sites was added to the Industry Sectors dataset using a keyword search on the permitted facilitys name to identify sites where fire-fighting foam may have been used in training exercises. Additionally, you may view an example spreadsheet of the subset of fire training facility data, as well as the keywords used in selecting or deselecting a facility for the subset. as well as the keywords used in selecting or deselecting a facility for the subset. These keywords were tested to maximize accuracy in selecting facilities that may use fire-fighting foam in training exercises, however, due to the lack of a required reporting field in the data systems for designating fire training sites, this methodology may not identify all fire training sites or may potentially misidentify them.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS PT 139 AIRPORT: All Certified Part 139 Airports PFAS Information Listing

Since July 1, 2006, all certified part 139 airports are required to have fire-fighting foam onsite that meet military specifications (MIL-F-24385) (14 CFR 139.317). To date, these military specification fire-fighting foams are fluorinated and have been historically used for training and extinguishing. The 2018 FAA Reauthorization Act has a provision stating that no later than October 2021, FAA shall not require the use of fluorinated AFFF. This provision does not prohibit the use of fluorinated AFFF at Part 139 civilian airports; it only prohibits FAA from mandating its use. The Federal Aviation Administration?s document AC 150/5210-6D - Aircraft Fire Extinguishing Agents provides guidance on Aircraft Fire Extinguishing Agents, which includes Aqueous Film Forming Foam (AFFF).

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

AQUEOUS FOAM NRC: Aqueous Foam Related Incidents Listing

The National Response Center (NRC) serves as an emergency call center that fields initial reports for pollution and railroad incidents and forwards that information to appropriate federal/state agencies for response. The spreadsheets posted to the NRC website contain initial incident data that has not been validated or investigated by a federal/state response agency. Response center calls from 1990 to the most recent complete calendar year where there was indication of Aqueous Film Forming Foam (AFFF) usage are included in this dataset. NRC calls may reference AFFF usage in the ?Material Involved? or ?Incident Description? fields.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-267-2675
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PCS: Permit Compliance System

PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 12/16/2016
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 03/10/2017
Number of Days to Update: 63

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: No Update Planned

PCS ENF: Enforcement data

No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

BIOSOLIDS: ICIS-NPDES Biosolids Facility Data

The data reflects compliance information about facilities in the biosolids program.

Date of Government Version: 10/13/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 202-564-4700
Last EDR Contact: 01/14/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

UST FINDER RELEASE: UST Finder Releases Database

US EPA's UST Finder data is a national composite of leaking underground storage tanks. This data contains information about, and locations of, leaking underground storage tanks. Data was collected from state sources and standardized into a national profile by EPA's Office of Underground Storage Tanks, Office of Research and Development, and the Association of State and Territorial Solid Waste Management Officials.

Date of Government Version: 06/08/2023
Date Data Arrived at EDR: 10/31/2023
Date Made Active in Reports: 01/18/2024
Number of Days to Update: 79

Source: Environmental Protecton Agency
Telephone: 202-564-0394
Last EDR Contact: 11/06/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Semi-Annually

UST FINDER: UST Finder Database

EPA developed UST Finder, a web map application containing a comprehensive, state-sourced national map of underground storage tank (UST) and leaking UST (LUST) data. It provides the attributes and locations of active and closed USTs, UST facilities, and LUST sites from states and from Tribal lands and US territories . UST Finder contains information about proximity of UST facilities and LUST sites to: surface and groundwater public drinking water protection areas; estimated number of private domestic wells and number of people living nearby; and flooding and wildfires.

Date of Government Version: 06/08/2023
Date Data Arrived at EDR: 10/04/2023
Date Made Active in Reports: 01/18/2024
Number of Days to Update: 106

Source: Environmental Protection Agency
Telephone: 202-564-0394
Last EDR Contact: 11/06/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

E MANIFEST: Hazardous Waste Electronic Manifest System

EPA established a national system for tracking hazardous waste shipments electronically. This system, known as ?e-Manifest,? will modernize the nation?s cradle-to-grave hazardous waste tracking process while saving valuable time, resources, and dollars for industry and states.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/20/2024
Number of Days to Update: 94

Source: Environmental Protection Agency
Telephone: 833-501-6826
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Varies

PFAS: PFAS Contaminated Sites Listing

PFAS have been widely used in numerous industrial and residential applications since the 1950a??s. Their stability and unique chemical properties produce waterproof, stain resistant, and nonstick qualities in products. They are found in some firefighting foams and a wide range of consumer products such as carpet treatments, non-stick cookware, water-resistant fabrics, food packaging materials, and personal care products.

Date of Government Version: 02/15/2024
Date Data Arrived at EDR: 08/06/2024
Date Made Active in Reports: 10/24/2024
Number of Days to Update: 79

Source: Department of Environment, Great Lakes & Energy
Telephone: 517-284-9278
Last EDR Contact: 11/06/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

AQUEOUS FOAM: Aqueous Film Forma Foam Listing

Sites with Aqueous Film Forming Foam contamination, as reported to the Department of Environment, Great Lakes & Energy. AFFF is a fire suppressant used to extinguish flammable liquid fires such as fuel fires.

Date of Government Version: 10/22/2024
Date Data Arrived at EDR: 10/25/2024
Date Made Active in Reports: 01/09/2025
Number of Days to Update: 76

Source: Department of Environment, Great Lakes & Energy
Telephone: 517-284-9278
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

AIRS: Permit and Emissions Inventory Data

Permit and emissions inventory data.

Date of Government Version: 09/12/2024
Date Data Arrived at EDR: 09/13/2024
Date Made Active in Reports: 11/25/2024
Number of Days to Update: 73

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-7074
Last EDR Contact: 12/04/2024
Next Scheduled EDR Contact: 03/24/2025
Data Release Frequency: Annually

ASBESTOS: Asbestos Notification Listing

Asbestos

Date of Government Version: 09/30/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 7

Source: Department of Licensing & Regulatory Affairs
Telephone: 517-284-7699
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Quarterly

BEA: Baseline Environmental Assessment Database

A BEA is a document that new or prospective property owners/operations disclose to the DEQ identifying the property as a facility pursuant to Part 201 and Part 213. The Inventory of BEA Facilities overlaps in part with the Part 201 Projects facilities and Part 213 facilities. There may be more than one BEA for each facility.

Date of Government Version: 08/15/2024
Date Data Arrived at EDR: 08/16/2024
Date Made Active in Reports: 11/04/2024
Number of Days to Update: 80

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-373-9541
Last EDR Contact: 10/30/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: No Update Planned

COAL ASH: Coal Ash Disposal Sites

Coal fired power plants in Southeast Michigan that have coal ash handling on site.

Date of Government Version: 04/01/2021
Date Data Arrived at EDR: 04/06/2021
Date Made Active in Reports: 06/24/2021
Number of Days to Update: 79

Source: Department of Environment, Great Lakes, and Energy
Telephone: 586-753-3754
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

DRYCLEANERS: Drycleaning Establishments

A listing of drycleaning facilities in Michigan.

Date of Government Version: 04/25/2024
Date Data Arrived at EDR: 07/09/2024
Date Made Active in Reports: 10/02/2024
Number of Days to Update: 85

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-335-4586
Last EDR Contact: 01/07/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Quarterly

FIN ASSURANCE 1: Financial Assurance Information Listing

Financial assurance information.

Date of Government Version: 03/02/2024
Date Data Arrived at EDR: 04/04/2024
Date Made Active in Reports: 07/02/2024
Number of Days to Update: 89

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-335-6610
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Semi-Annually

FIN ASSURANCE 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 09/13/2024
Date Data Arrived at EDR: 09/18/2024
Date Made Active in Reports: 12/04/2024
Number of Days to Update: 77

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-335-4034
Last EDR Contact: 12/10/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Varies

FIN ASSURANCE 3: Financial Assurance Information Listing

Financial assurance information for underground storage tank facilities.

Date of Government Version: 09/19/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 12/18/2024
Number of Days to Update: 78

Source: Department of Licensing & Regulatory Affairs
Telephone: 517-335-7279
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

LEAD: Lead Information Registry Listing

All properties in this registry received a lead-based paint inspection or a lead risk assessment, and a lead abatement service. A lead-based paint inspection identifies any lead present on the property. The lead risk assessment determines if any of the lead found is a hazard. Lead abatement services address or remove the lead hazards.

Date of Government Version: 02/28/2024
Date Data Arrived at EDR: 02/29/2024
Date Made Active in Reports: 05/21/2024
Number of Days to Update: 82

Source: Department of Health & Human Services
Telephone: 517-335-9390
Last EDR Contact: 11/19/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Varies

LEAD CERT: Lead Safe Housing Registry

A listing of Michigan properties included in the Lead Safe Housing Registry.

Date of Government Version: 03/25/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 82

Source: Department of Community Health
Telephone: 517-335-9699
Last EDR Contact: 11/19/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Quarterly

MI MANIFEST: Hazardous Waste Manifest Data

A generator who transports, or offers for transportation, hazardous waste for off-site treatment, storage or disposal must prepare a hazardous waste manifest to accompany such shipment.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 06/23/2023
Date Made Active in Reports: 12/12/2023
Number of Days to Update: 172

Source: Department of Environment, Great Lakes & Energy
Telephone: 517-284-6838
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 05/05/2025
Data Release Frequency: Annually

NPDES: List of Active NPDES Permits

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

Date of Government Version: 10/07/2024
Date Data Arrived at EDR: 10/11/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 95

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-241-1300
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

UIC: Underground Injection Wells Database

A listing of underground injection well locations. The UIC Program is responsible for regulating the construction, operation, permitting, and closure of injection wells that place fluids underground for storage or disposal.

Date of Government Version: 10/09/2024
Date Data Arrived at EDR: 10/17/2024
Date Made Active in Reports: 01/07/2025
Number of Days to Update: 82

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-241-1515
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Quarterly

WDS: Waste Data System

The Waste Data System (WDS) tracks activities at facilities regulated by the Solid Waste, Scrap Tire, Hazardous Waste, and Liquid Industrial Waste programs.

Date of Government Version: 12/08/2023
Date Data Arrived at EDR: 12/11/2023
Date Made Active in Reports: 03/05/2024
Number of Days to Update: 85

Source: Department of Environment, Great Lakes, and Energy
Telephone: 517-284-6562
Last EDR Contact: 11/07/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Varies

ENVIRO: Michigan Enviro Information

MiEnviro is permitting and compliance for air quality and water resources, including National Pollutant Discharge Elimination System (NPDES), storm water, groundwater discharge, aquatic nuisance control, Part 41 construction, medical waste registrations, and land and water interface permits.

Date of Government Version: 09/30/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 12/18/2024
Number of Days to Update: 78

Source: Department of Environment, Great Lakes, & Energy
Telephone: 800-662-9278
Last EDR Contact: 12/30/2024
Next Scheduled EDR Contact: 04/13/2025
Data Release Frequency: Quarterly

SSCUP: State Owned Sites Cleanup Program List

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.

Date of Government Version: 12/31/2023
Date Data Arrived at EDR: 07/16/2024
Date Made Active in Reports: 10/07/2024
Number of Days to Update: 83

Source: Department of Environment, Great Lakes & Energy
Telephone: 517-284-5153
Last EDR Contact: 07/16/2024
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA PART 201: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/24/2013
Number of Days to Update: 176

Source: Department of Environment, Great Lakes, and Energy
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Environment, Great Lakes, and Energy
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/24/2013
Number of Days to Update: 176

Source: Department of Environment, Great Lakes, and Energy
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 08/05/2024
Date Data Arrived at EDR: 08/06/2024
Date Made Active in Reports: 10/25/2024
Number of Days to Update: 80

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/05/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 11/30/2023
Date Made Active in Reports: 12/01/2023
Number of Days to Update: 1

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/06/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/18/2022
Number of Days to Update: 80

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/07/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 11/27/2024
Next Scheduled EDR Contact: 03/17/2025
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data

Source: Endeavor Business Media

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Day Care Centers, Group & Family Homes
Source: Bureau of REgulatory Services
Telephone: 517-373-8300

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Department of Natural Resources
Telephone: 517-241-2254

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

SOUTHERN PORTIONS
10617 LAWRENCE ROAD
BROOKLYN, MI 49230

TARGET PROPERTY COORDINATES

Latitude (North):	42.108589 - 42° 6' 30.92''
Longitude (West):	84.149621 - 84° 8' 58.64''
Universal Tranverse Mercator:	Zone 16
UTM X (Meters):	735676.3
UTM Y (Meters):	4665551.5
Elevation:	1035 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	14450260 ONSTED, MI
Version Date:	2019
Northeast Map:	14450238 MANCHESTER, MI
Version Date:	2019
Southeast Map:	14450292 TIPTON, MI
Version Date:	2019
Northwest Map:	14450254 NORVELL, MI
Version Date:	2019

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

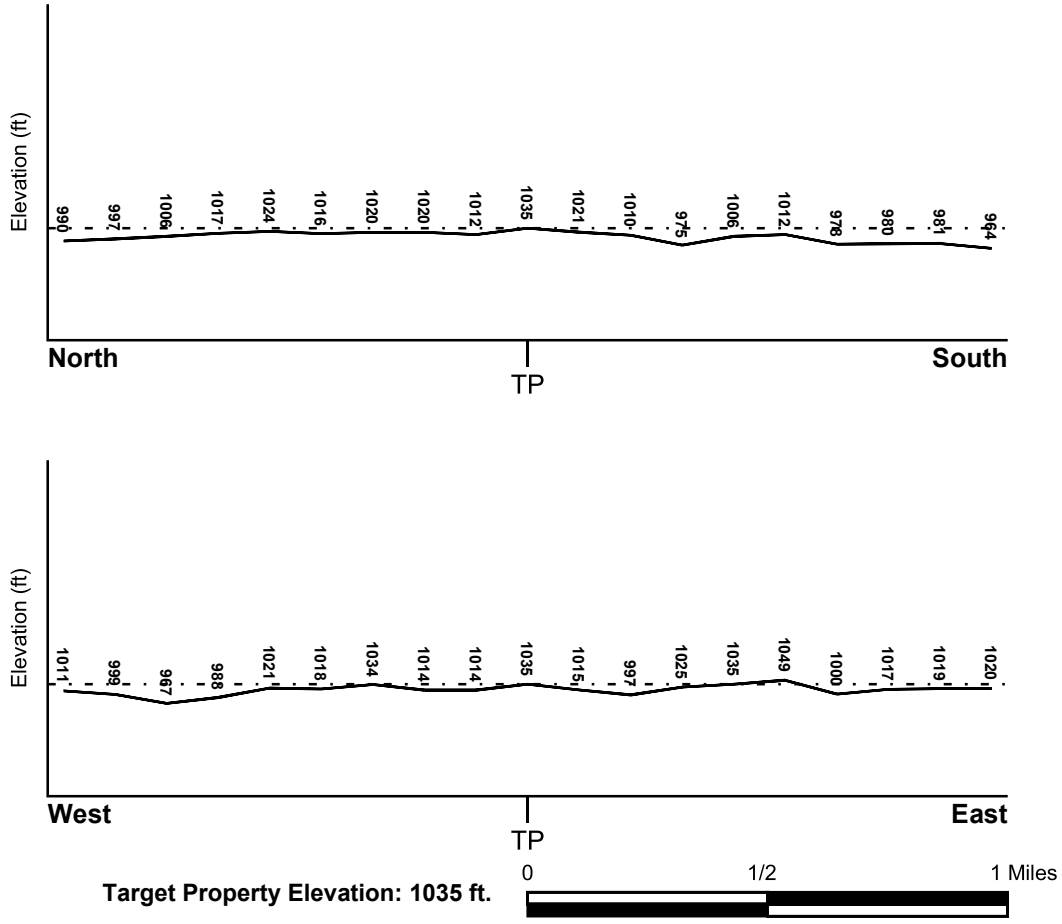
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SSE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
26075C0500D	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
Not Reported	

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
ONSTED	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site-specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Paleozoic
System:	Mississippian
Series:	Osagean and Kinderhookian Series
Code:	M1 *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name:	HOUGHTON
Soil Surface Texture:	muck
Hydrologic Group:	Class A/D - Drained/undrained hydrology class of soils that can be drained and are classified.
Soil Drainage Class:	Very poorly. Soils are wet to the surface most of the time. Depth to water table is less than 1 foot, or is ponded.

Hydric Status: Soil meets the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel:	HIGH
Depth to Bedrock Min:	> 60 inches
Depth to Bedrock Max:	> 60 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	9 inches	muck	A-8	Highly organic soils, Peat.	Max: 6.00 Min: 0.20	Max: 7.80 Min: 4.50
2	9 inches	66 inches	muck	A-8	Highly organic soils, Peat.	Max: 6.00 Min: 0.20	Max: 7.80 Min: 4.50

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: loamy sand
sandy loam
loam
gravelly - sandy loam

Surficial Soil Types: loamy sand
sandy loam
loam
gravelly - sandy loam

Shallow Soil Types: sand
sandy loam
silty clay loam
cobbly - sandy loam
clay loam
gravelly - sandy clay loam

Deeper Soil Types: fine sand
gravelly - sand
sand and gravel
stratified
loam

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

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

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	MI6000000349714	0 - 1/8 Mile ESE
2	MI6000000341229	1/4 - 1/2 Mile SSW
3	MI6000000355275	1/4 - 1/2 Mile WNW
4	MI6000000355289	1/4 - 1/2 Mile SW
A5	MI6000000355282	1/2 - 1 Mile SW
6	MI6000000342694	1/2 - 1 Mile WNW
7	MI6000000346066	1/2 - 1 Mile NW
A8	MI6000000355287	1/2 - 1 Mile WSW
B9	MI6000000344021	1/2 - 1 Mile NNW
10	MI6000000355928	1/2 - 1 Mile South
11	MI6000000355966	1/2 - 1 Mile SSW
12	MI6000000346759	1/2 - 1 Mile West
B13	MI6000000342218	1/2 - 1 Mile NNW
C14	MI6000000347560	1/2 - 1 Mile SSE
C15	MI6000000347553	1/2 - 1 Mile SSE
C16	MI6000000347569	1/2 - 1 Mile SSE
C17	MI6000000347568	1/2 - 1 Mile SSE
18	MI6000000355313	1/2 - 1 Mile South
19	MI6000000349104	1/2 - 1 Mile NNW
20	MI6000000348531	1/2 - 1 Mile SSW
21	MI6000000344701	1/2 - 1 Mile NNW
22	MI6000000356409	1/2 - 1 Mile SW
23	MI6000000353898	1/2 - 1 Mile NW
24	MI6000000345294	1/2 - 1 Mile South
25	MI6000000345234	1/2 - 1 Mile WSW
26	MI6000000349643	1/2 - 1 Mile West
27	MI6000000346557	1/2 - 1 Mile West
D28	MI6000000342371	1/2 - 1 Mile SSW
29	MI6000000344702	1/2 - 1 Mile NNE
D30	MI6000000355959	1/2 - 1 Mile SSW
E31	MI6000000350049	1/2 - 1 Mile NW
F32	MI6000000346764	1/2 - 1 Mile NW
F33	MI6000000353901	1/2 - 1 Mile NW
G34	MI6000000345881	1/2 - 1 Mile WSW
G35	MI6000000345880	1/2 - 1 Mile WSW
36	MI6000000356418	1/2 - 1 Mile SSW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

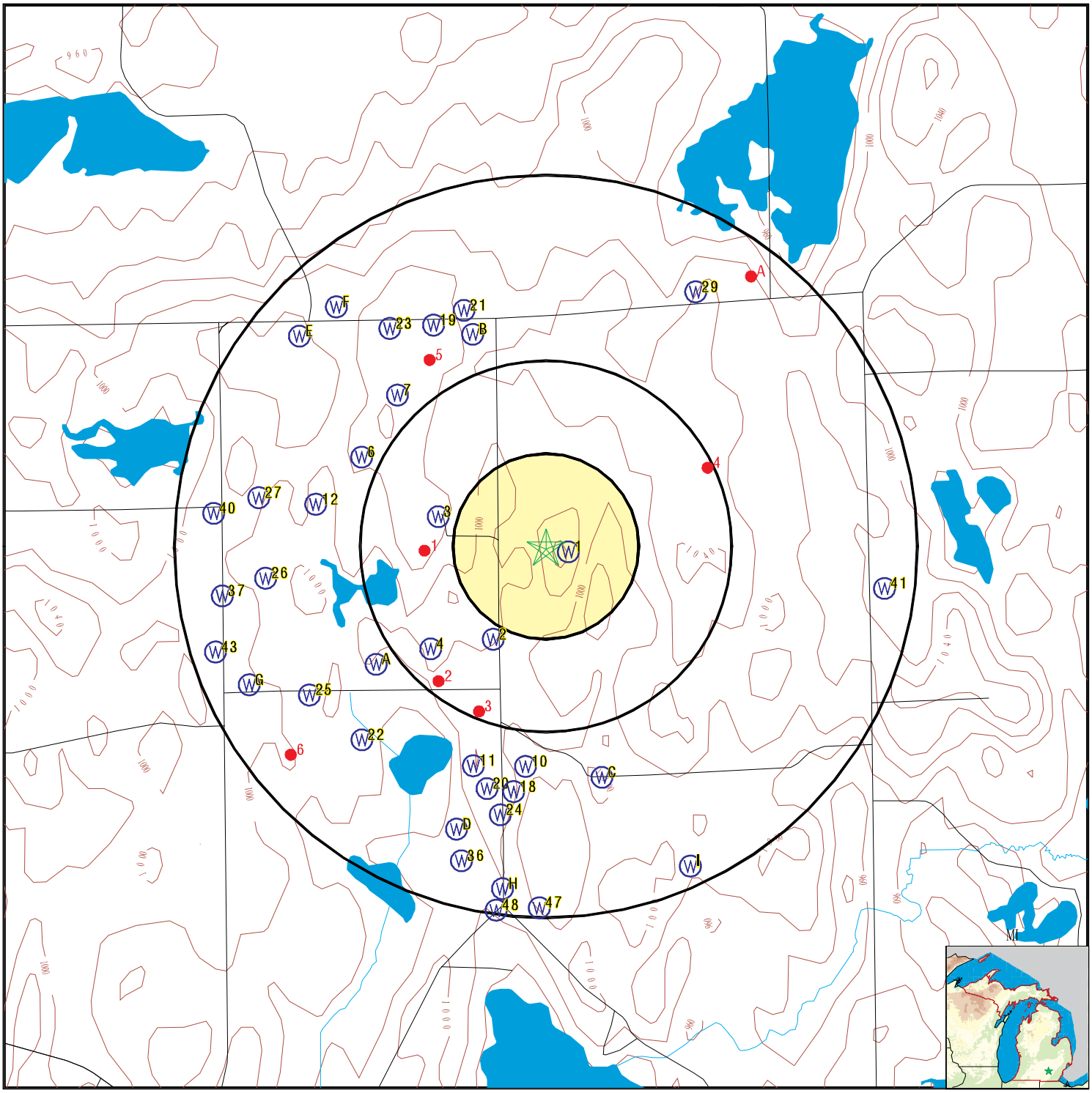
MAP ID	WELL ID	LOCATION FROM TP
37	MI6000000342937	1/2 - 1 Mile West
G38	MI6000000355286	1/2 - 1 Mile WSW
E39	MI6000000343797	1/2 - 1 Mile NW
40	MI6000000355274	1/2 - 1 Mile West
41	MI6000000879227	1/2 - 1 Mile East
H42	MI6000000355641	1/2 - 1 Mile South
43	MI6000000355285	1/2 - 1 Mile WSW
H44	MI6000000355944	1/2 - 1 Mile South
I45	MI6000000345049	1/2 - 1 Mile SSE
I46	MI6000000345230	1/2 - 1 Mile SSE
47	MI6000000355334	1/2 - 1 Mile South
48	MI6000000343606	1/2 - 1 Mile South

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	MIOG13000038986	1/4 - 1/2 Mile West
2	MIOG13000038979	1/4 - 1/2 Mile SW
3	MIOG13000038993	1/4 - 1/2 Mile SSW
4	MIOG13000038427	1/4 - 1/2 Mile ENE
5	MIOG13000038980	1/2 - 1 Mile NNW
6	MIOG13000038966	1/2 - 1 Mile SW
A7	MIOG13000038159	1/2 - 1 Mile NE
A8	MIOG13000038160	1/2 - 1 Mile NE

PHYSICAL SETTING SOURCE MAP - 7877168.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	Southern Portions	CLIENT:	Applied Science & Technology
ADDRESS:	10617 Lawrence Road Brooklyn MI 49230	CONTACT:	BAILEY BISHOP
		INQUIRY #:	7877168.2s
LAT/LONG:	42.108589 / 84.149621	DATE:	January 22, 2025 1:46 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
ESE
0 - 1/8 Mile
Higher

MI WELLS **MI6000000349714**

WELLS:

Well ID:	38000014858	Permit #:	20256
Owner:	GARY TROLZ GT RANCH LLC	Well Depth (ft):	162
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-2014	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	01-OCT-20
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5.68	Case Depth (ft):	142
Screen Start Depth (ft):	142	Screen End Depth (ft):	162
Static Water Level (ft):	76	Flowing:	N
Test Drawdown Depth (ft):	120	Test Hours:	2
Test Rate:	40	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

2
SSW
1/4 - 1/2 Mile
Lower

MI WELLS **MI6000000341229**

WELLS:

Well ID:	38000003152	Permit #:	Not Reported
Owner:	BUCKNER, LESLIE	Well Depth (ft):	103
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-1529	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	16-DEC-93
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	98
Screen Start Depth (ft):	98	Screen End Depth (ft):	103
Static Water Level (ft):	26	Flowing:	N
Test Drawdown Depth (ft):	60	Test Hours:	2
Test Rate:	30	Test Method:	UNK
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	997	Specific Capacity:	0
Rock Top (ft):	0		

3
WNW
1/4 - 1/2 Mile
Lower

MI WELLS **MI6000000355275**

WELLS:

Well ID:	38000020564	Permit #:	3226
Owner:	STEPHEN CRAWFORD	Well Depth (ft):	97
Well Type:	Household	Other Type Info:	Not Reported

Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	23-APR-74
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	4	Case Depth (ft):	92
Screen Start Depth (ft):	92	Screen End Depth (ft):	97
Static Water Level (ft):	55	Flowing:	N
Test Drawdown Depth (ft):	66	Test Hours:	4
Test Rate:	30	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	19
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

4
SW
1/4 - 1/2 Mile
Lower

MI WELLS **MI6000000355289**

WELLS:

Well ID:	38000020578	Permit #:	1091
Owner:	ROBERT WALSH	Well Depth (ft):	65
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0106	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	19-NOV-87
Case Type:	Steel-Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	4	Case Depth (ft):	61
Screen Start Depth (ft):	61	Screen End Depth (ft):	65
Static Water Level (ft):	26	Flowing:	N
Test Drawdown Depth (ft):	27	Test Hours:	2
Test Rate:	18	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	15
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

A5
SW
1/2 - 1 Mile
Lower

MI WELLS **MI6000000355282**

WELLS:

Well ID:	38000020571	Permit #:	8721
Owner:	TERRY HOLBROOK	Well Depth (ft):	165
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0162	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	10-NOV-83
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	162
Screen Start Depth (ft):	162	Screen End Depth (ft):	165
Static Water Level (ft):	24	Flowing:	N
Test Drawdown Depth (ft):	26	Test Hours:	1
Test Rate:	15	Test Method:	UNK
Well Grouted:	Y	Pump Capacity (gpm):	12
Elevation (ft):	0	Specific Capacity:	0

Rock Top (ft): 0

6
WNW
1/2 - 1 Mile
Lower

MI WELLS **MI6000000342694**

WELLS:

Well ID:	38000005071	Permit #:	9489
Owner:	Jim Comiskey	Well Depth (ft):	76
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	30-2091	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	13-JUN-01
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	47
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	26	Flowing:	N
Test Drawdown Depth (ft):	75	Test Hours:	1
Test Rate:	100	Test Method:	UNK
Well Grouted:	Y	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	30		

7
NW
1/2 - 1 Mile
Lower

MI WELLS **MI6000000346066**

WELLS:

Well ID:	38000009552	Permit #:	14546
Owner:	SHARON BENDY	Well Depth (ft):	202
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	13-1593	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	14-JUN-06
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	180
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	68	Flowing:	N
Test Drawdown Depth (ft):	80	Test Hours:	1
Test Rate:	30	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

A8
WSW
1/2 - 1 Mile
Lower

MI WELLS **MI6000000355287**

WELLS:

Well ID:	38000020576	Permit #:	4057
Owner:	DWIGHT DEAN LYNN	Well Depth (ft):	159

Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	05-AUG-92
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	156
Screen Start Depth (ft):	156	Screen End Depth (ft):	159
Static Water Level (ft):	23	Flowing:	N
Test Drawdown Depth (ft):	26	Test Hours:	1
Test Rate:	20	Test Method:	UNK
Well Grouted:	Y	Pump Capacity (gpm):	20
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

B9
NNW
1/2 - 1 Mile
Lower

MI WELLS **MI6000000344021**

WELLS:

Well ID:	38000006866	Permit #:	12150
Owner:	Tim & Kathy Everhart	Well Depth (ft):	98
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	19-SEP-03
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	94
Screen Start Depth (ft):	94	Screen End Depth (ft):	98
Static Water Level (ft):	58	Flowing:	N
Test Drawdown Depth (ft):	73	Test Hours:	1
Test Rate:	20	Test Method:	TSTPUM
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	.2739726
Rock Top (ft):	0		

10
South
1/2 - 1 Mile
Lower

MI WELLS **MI6000000355928**

WELLS:

Well ID:	38000021217	Permit #:	3390
Owner:	RUSTY SWARTZ	Well Depth (ft):	76
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	23-1077	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	19-SEP-91
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	68
Screen Start Depth (ft):	60	Screen End Depth (ft):	76
Static Water Level (ft):	30	Flowing:	N
Test Drawdown Depth (ft):	68	Test Hours:	1
Test Rate:	15	Test Method:	UNK
Well Grouted:	Y	Pump Capacity (gpm):	10

Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

11
SSW
1/2 - 1 Mile
Lower

MI WELLS **MI6000000355966**

WELLS:

Well ID:	38000021255	Permit #:	6983
Owner:	ROGER FIELDS	Well Depth (ft):	160
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-1517	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	29-NOV-79
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	152
Screen Start Depth (ft):	152	Screen End Depth (ft):	160
Static Water Level (ft):	61	Flowing:	N
Test Drawdown Depth (ft):	105	Test Hours:	4
Test Rate:	10	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	7
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	162		

12
West
1/2 - 1 Mile
Lower

MI WELLS **MI6000000346759**

WELLS:

Well ID:	38000011051	Permit #:	15562
Owner:	National Star Mortgage	Well Depth (ft):	77
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-2014	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	23-MAY-08
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5.67	Case Depth (ft):	72
Screen Start Depth (ft):	72	Screen End Depth (ft):	77
Static Water Level (ft):	1	Flowing:	Y
Test Drawdown Depth (ft):	77	Test Hours:	2
Test Rate:	50	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

B13
NNW
1/2 - 1 Mile
Lower

MI WELLS **MI6000000342218**

WELLS:

Well ID:	38000004522	Permit #:	7580

Owner:	TIM & KATHY EVERHART	Well Depth (ft):	102
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	14-DEC-00
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	99
Screen Start Depth (ft):	98	Screen End Depth (ft):	102
Static Water Level (ft):	57	Flowing:	N
Test Drawdown Depth (ft):	81	Test Hours:	1
Test Rate:	20	Test Method:	TSTPUM
Well Grouted:	Y	Pump Capacity (gpm):	12
Elevation (ft):	0	Specific Capacity:	.24691358
Rock Top (ft):	0		

C14
SSE **MI WELLS** **MI6000000347560**
1/2 - 1 Mile
Lower

WELLS:

Well ID:	38000012272	Permit #:	16775
Owner:	william fox	Well Depth (ft):	170
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0650	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	22-MAY-12
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	156
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	37	Flowing:	N
Test Drawdown Depth (ft):	60	Test Hours:	1
Test Rate:	30	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

C15
SSE **MI WELLS** **MI6000000347553**
1/2 - 1 Mile
Lower

WELLS:

Well ID:	38000012264	Permit #:	16775
Owner:	william fox	Well Depth (ft):	146
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0650	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	22-MAY-12
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	141
Screen Start Depth (ft):	141	Screen End Depth (ft):	146
Static Water Level (ft):	37	Flowing:	N
Test Drawdown Depth (ft):	100	Test Hours:	1
Test Rate:	20	Test Method:	AIR

Well Grouted:	Y	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

C16
SSE
1/2 - 1 Mile
Lower

MI WELLS **MI6000000347569**

WELLS:

Well ID:	38000012282	Permit #:	16775
Owner:	WILLIAM FOX	Well Depth (ft):	170
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	13-1593	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	01-JUN-12
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	156
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	37	Flowing:	N
Test Drawdown Depth (ft):	60	Test Hours:	1
Test Rate:	30	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	138		

C17
SSE
1/2 - 1 Mile
Lower

MI WELLS **MI6000000347568**

WELLS:

Well ID:	38000012281	Permit #:	16775
Owner:	WILLIAM FOX	Well Depth (ft):	146
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Plugged/Abandoned	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	13-1593	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	22-MAY-12
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	141
Screen Start Depth (ft):	141	Screen End Depth (ft):	146
Static Water Level (ft):	37	Flowing:	N
Test Drawdown Depth (ft):	100	Test Hours:	1
Test Rate:	20	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

18
South
1/2 - 1 Mile
Lower

MI WELLS **MI6000000355313**

WELLS:

Well ID:	38000020602	Permit #:	3706
Owner:	WILLIAM FOX	Well Depth (ft):	154
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	46-2039	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	28-APR-98
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	150
Screen Start Depth (ft):	150	Screen End Depth (ft):	154
Static Water Level (ft):	40	Flowing:	N
Test Drawdown Depth (ft):	70	Test Hours:	2
Test Rate:	10	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

19
NNW
1/2 - 1 Mile
Higher

MI WELLS **MI6000000349104**

WELLS:

Well ID:	38000014131	Permit #:	19303
Owner:	Jimmie Dugan	Well Depth (ft):	109
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-2487	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	02-AUG-18
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	101
Screen Start Depth (ft):	101	Screen End Depth (ft):	105
Static Water Level (ft):	70	Flowing:	N
Test Drawdown Depth (ft):	85	Test Hours:	12
Test Rate:	12	Test Method:	TSTPUM
Well Grouted:	Y	Pump Capacity (gpm):	20
Elevation (ft):	0	Specific Capacity:	.14117647
Rock Top (ft):	0		

20
SSW
1/2 - 1 Mile
Lower

MI WELLS **MI6000000348531**

WELLS:

Well ID:	38000013450	Permit #:	17927
Owner:	JOHN PORTER	Well Depth (ft):	127
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-2014	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	15-JUN-16
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5.68	Case Depth (ft):	117
Screen Start Depth (ft):	117	Screen End Depth (ft):	127
Static Water Level (ft):	60	Flowing:	N
Test Drawdown Depth (ft):	60	Test Hours:	2

Test Rate:	12	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

21
NNW
1/2 - 1 Mile
Lower

MI WELLS **MI6000000344701**

WELLS:

Well ID:	38000007712	Permit #:	4211
Owner:	GLYNN TROLZ	Well Depth (ft):	89
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0106	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	13-OCT-75
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	6	Case Depth (ft):	79
Screen Start Depth (ft):	79	Screen End Depth (ft):	89
Static Water Level (ft):	47	Flowing:	N
Test Drawdown Depth (ft):	67	Test Hours:	2
Test Rate:	19	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	9
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

22
SW
1/2 - 1 Mile
Lower

MI WELLS **MI6000000356409**

WELLS:

Well ID:	38000021698	Permit #:	7491
Owner:	DONALD RIDENOUR	Well Depth (ft):	43
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-1517	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	22-SEP-80
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	39
Screen Start Depth (ft):	39	Screen End Depth (ft):	43
Static Water Level (ft):	17	Flowing:	N
Test Drawdown Depth (ft):	35	Test Hours:	4
Test Rate:	10	Test Method:	UNK
Well Grouted:	Y	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

23
NW
1/2 - 1 Mile
Lower

MI WELLS **MI6000000353898**

WELLS:

Well ID:	38000019185	Permit #:	1786
Owner:	WILBUR LAMB	Well Depth (ft):	220
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	23-0107	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	24-JUN-96
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	206
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	66	Flowing:	N
Test Drawdown Depth (ft):	0	Test Hours:	0
Test Rate:	0	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	200		

24
South
1/2 - 1 Mile
Lower

MI WELLS **MI6000000345294**

WELLS:

Well ID:	38000008453	Permit #:	9171
Owner:	MURPH'S PUMP SERVICE	Well Depth (ft):	54
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	23-1077	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	18-JAN-01
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	46
Screen Start Depth (ft):	46	Screen End Depth (ft):	54
Static Water Level (ft):	30	Flowing:	N
Test Drawdown Depth (ft):	45	Test Hours:	1
Test Rate:	15	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

25
WSW
1/2 - 1 Mile
Lower

MI WELLS **MI6000000345234**

WELLS:

Well ID:	38000008375	Permit #:	13515
Owner:	NICK ZARR	Well Depth (ft):	160
Well Type:	Household	Other Type Info:	Not Reported

Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	13-1559	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	12-JAN-05
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	152
Screen Start Depth (ft):	152	Screen End Depth (ft):	160
Static Water Level (ft):	20	Flowing:	N
Test Drawdown Depth (ft):	60	Test Hours:	1
Test Rate:	25	Test Method:	UNK
Well Grouted:	Y	Pump Capacity (gpm):	10
Elevation (ft):	981	Specific Capacity:	0
Rock Top (ft):	0		

26
West
1/2 - 1 Mile
Lower

MI WELLS **MI6000000349643**

WELLS:

Well ID:	38000014782	Permit #:	19939
Owner:	JAMIESON AND JANINE STEVENS		
Well Depth (ft):	86	Well Type:	Household
Other Type Info:	Not Reported	Well Status:	Active
Other Status Info:	Not Reported	Water Supply Serial #:	0
Well #:	Not Reported	Driller ID:	81-2014
Drill Method:	ROTARY	Other Method Info:	Not Reported
Construction Date:	21-JUL-20	Case Type:	PVC Plastic
Other Casing Info:	Not Reported	Case Diameter (in):	5.68
Case Depth (ft):	76	Screen Start Depth (ft):	76
Screen End Depth (ft):	86	Static Water Level (ft):	40
Flowing:	N	Test Drawdown Depth (ft):	60
Test Hours:	2	Test Rate:	30
Test Method:	AIR	Well Grouted:	Y
Pump Capacity (gpm):	10	Elevation (ft):	0
Specific Capacity:	0	Rock Top (ft):	0

27
West
1/2 - 1 Mile
Lower

MI WELLS **MI6000000346557**

WELLS:

Well ID:	38000010606	Permit #:	15164
Owner:	CHELSEA MODULAR HOMES	Well Depth (ft):	59
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-2014	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	02-AUG-07
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5.67	Case Depth (ft):	49
Screen Start Depth (ft):	49	Screen End Depth (ft):	59
Static Water Level (ft):	39	Flowing:	N
Test Drawdown Depth (ft):	59	Test Hours:	2
Test Rate:	12	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	0

Rock Top (ft): 0

D28
SSW
1/2 - 1 Mile
Lower

MI WELLS **MI6000000342371**

WELLS:

Well ID:	38000004708	Permit #:	9171
Owner:	MURPH'S PUMP SER	Well Depth (ft):	54
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	23-1077	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	18-JAN-01
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	46
Screen Start Depth (ft):	46	Screen End Depth (ft):	54
Static Water Level (ft):	30	Flowing:	N
Test Drawdown Depth (ft):	45	Test Hours:	1
Test Rate:	15	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

29
NNE
1/2 - 1 Mile
Lower

MI WELLS **MI6000000344702**

WELLS:

Well ID:	38000007713	Permit #:	Not Reported
Owner:	GLYNN TROLZ	Well Depth (ft):	148
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0106	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	26-FEB-68
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	4	Case Depth (ft):	144
Screen Start Depth (ft):	144	Screen End Depth (ft):	148
Static Water Level (ft):	76	Flowing:	N
Test Drawdown Depth (ft):	82	Test Hours:	2
Test Rate:	15	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

D30
SSW
1/2 - 1 Mile
Lower

MI WELLS **MI6000000355959**

WELLS:

Well ID:	38000021248	Permit #:	5378
Owner:	RICHARD BUSZ	Well Depth (ft):	163

Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	46-0551	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	12-SEP-77
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	158
Screen Start Depth (ft):	159	Screen End Depth (ft):	163
Static Water Level (ft):	40	Flowing:	N
Test Drawdown Depth (ft):	0	Test Hours:	0
Test Rate:	0	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

E31
NW
1/2 - 1 Mile
Lower

MI WELLS **MI6000000350049**

WELLS:

Well ID:	38000015266	Permit #:	20615
Owner:	WILLIAM AND JAYME SCHAFFER		
Well Depth (ft):	198	Well Type:	Household
Other Type Info:	Not Reported	Well Status:	Active
Other Status Info:	Not Reported	Water Supply Serial #:	0
Well #:	Not Reported	Driller ID:	81-2014
Drill Method:	ROTARY	Other Method Info:	Not Reported
Construction Date:	14-OCT-21	Case Type:	PVC Plastic
Other Casing Info:	Not Reported	Case Diameter (in):	5.68
Case Depth (ft):	187	Screen Start Depth (ft):	0
Screen End Depth (ft):	0	Static Water Level (ft):	75
Flowing:	N	Test Drawdown Depth (ft):	75
Test Hours:	2	Test Rate:	12
Test Method:	AIR	Well Grouted:	Y
Pump Capacity (gpm):	10	Elevation (ft):	0
Specific Capacity:	0	Rock Top (ft):	185

F32
NW
1/2 - 1 Mile
Lower

MI WELLS **MI6000000346764**

WELLS:

Well ID:	38000011057	Permit #:	15438
Owner:	Pat Chase	Well Depth (ft):	226
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-2487	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	20-APR-08
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	192
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	80	Flowing:	N
Test Drawdown Depth (ft):	82	Test Hours:	2
Test Rate:	18	Test Method:	TSTPUM
Well Grouted:	Y	Pump Capacity (gpm):	10

Elevation (ft):	0	Specific Capacity:	.2195122
Rock Top (ft):	187		

F33
NW
1/2 - 1 Mile
Lower

MI WELLS **MI6000000353901**

WELLS:

Well ID:	38000019188	Permit #:	W6854
Owner:	JOHN SENKEWITZ	Well Depth (ft):	198
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-0624	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	19-MAR-99
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	172
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	58	Flowing:	N
Test Drawdown Depth (ft):	59	Test Hours:	2
Test Rate:	12	Test Method:	TSTPUM
Well Grouted:	Y	Pump Capacity (gpm):	12
Elevation (ft):	0	Specific Capacity:	.20338983
Rock Top (ft):	0		

G34
WSW
1/2 - 1 Mile
Lower

MI WELLS **MI6000000345881**

WELLS:

Well ID:	38000009261	Permit #:	14201
Owner:	Hubert Creech	Well Depth (ft):	151
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	27-JAN-06
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	147
Screen Start Depth (ft):	147	Screen End Depth (ft):	151
Static Water Level (ft):	20	Flowing:	N
Test Drawdown Depth (ft):	25	Test Hours:	2
Test Rate:	20	Test Method:	TSTPUM
Well Grouted:	Y	Pump Capacity (gpm):	12
Elevation (ft):	0	Specific Capacity:	.8
Rock Top (ft):	0		

G35
WSW
1/2 - 1 Mile
Lower

MI WELLS **MI6000000345880**

WELLS:

Well ID:	38000009260	Permit #:	14201

Owner:	Hubert Creech	Well Depth (ft):	315
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Inactive	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	26-JAN-06
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	209
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	20	Flowing:	N
Test Drawdown Depth (ft):	100	Test Hours:	2
Test Rate:	2	Test Method:	Not Reported
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	204		

36
SSW
1/2 - 1 Mile
Lower

MI WELLS **MI6000000356418**

WELLS:

Well ID:	38000021707	Permit #:	5493
Owner:	KEN MILLER	Well Depth (ft):	129
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	46-0551	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	14-MAR-78
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	124
Screen Start Depth (ft):	124	Screen End Depth (ft):	129
Static Water Level (ft):	50	Flowing:	N
Test Drawdown Depth (ft):	0	Test Hours:	0
Test Rate:	0	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

37
West
1/2 - 1 Mile
Lower

MI WELLS **MI6000000342937**

WELLS:

Well ID:	38000005335	Permit #:	10625
Owner:	BRENT STURDEVANT	Well Depth (ft):	77
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	13-1593	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	10-JUL-02
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	72
Screen Start Depth (ft):	72	Screen End Depth (ft):	77
Static Water Level (ft):	45	Flowing:	N
Test Drawdown Depth (ft):	55	Test Hours:	1
Test Rate:	25	Test Method:	AIR

Well Grouted:	Y	Pump Capacity (gpm):	18
Elevation (ft):	1010	Specific Capacity:	0
Rock Top (ft):	0		

G38
WSW **MI WELLS** **MI6000000355286**
1/2 - 1 Mile
Lower

WELLS:

Well ID:	38000020575	Permit #:	Not Reported
Owner:	DALE CREECH	Well Depth (ft):	197
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	01-NOV-88
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	171
Screen Start Depth (ft):	0	Screen End Depth (ft):	0
Static Water Level (ft):	33	Flowing:	N
Test Drawdown Depth (ft):	35	Test Hours:	1
Test Rate:	20	Test Method:	UNK
Well Grouted:	Y	Pump Capacity (gpm):	10
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	166		

E39
NW **MI WELLS** **MI6000000343797**
1/2 - 1 Mile
Lower

WELLS:

Well ID:	38000006538	Permit #:	11713
Owner:	MARK DISNEY	Well Depth (ft):	147
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	13-1593	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	16-JUN-03
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	142
Screen Start Depth (ft):	142	Screen End Depth (ft):	147
Static Water Level (ft):	66	Flowing:	N
Test Drawdown Depth (ft):	90	Test Hours:	1
Test Rate:	30	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

40
West **MI WELLS** **MI6000000355274**
1/2 - 1 Mile
Lower

WELLS:

Well ID:	38000020563	Permit #:	Not Reported
Owner:	WADE F LORA	Well Depth (ft):	44
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	Cable Tool
Other Method Info:	Not Reported	Construction Date:	10-MAY-68
Case Type:	Unknown	Other Casing Info:	Not Reported
Case Diameter (in):	4	Case Depth (ft):	40
Screen Start Depth (ft):	40	Screen End Depth (ft):	44
Static Water Level (ft):	28	Flowing:	N
Test Drawdown Depth (ft):	30	Test Hours:	2
Test Rate:	30	Test Method:	UNK
Well Grouted:	N	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

41
East
1/2 - 1 Mile
Lower

MI WELLS **MI6000000879227**

WELLS:

Well ID:	81000011127	Permit #:	00-10005
Owner:	BILL TAYLOR	Well Depth (ft):	134
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	20-NOV-00
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	126.6
Screen Start Depth (ft):	126.6	Screen End Depth (ft):	134
Static Water Level (ft):	52	Flowing:	N
Test Drawdown Depth (ft):	77	Test Hours:	1
Test Rate:	20	Test Method:	TSTPUM
Well Grouted:	Y	Pump Capacity (gpm):	20
Elevation (ft):	0	Specific Capacity:	.25974026
Rock Top (ft):	0		

H42
South
1/2 - 1 Mile
Lower

MI WELLS **MI6000000355641**

WELLS:

Well ID:	38000020930	Permit #:	4592
Owner:	EUGENIO MARELLI	Well Depth (ft):	107
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	23-2033	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	27-MAY-93
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	102
Screen Start Depth (ft):	102	Screen End Depth (ft):	107
Static Water Level (ft):	25	Flowing:	N
Test Drawdown Depth (ft):	107	Test Hours:	3

Test Rate:	40	Test Method:	UNK
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

43
WSW
1/2 - 1 Mile
Lower

MI WELLS **MI6000000355285**

WELLS:

Well ID:	38000020574	Permit #:	W-6622
Owner:	RON KOPP	Well Depth (ft):	69
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	13-1593	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	30-SEP-98
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	64
Screen Start Depth (ft):	64	Screen End Depth (ft):	69
Static Water Level (ft):	32	Flowing:	N
Test Drawdown Depth (ft):	55	Test Hours:	1
Test Rate:	60	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

H44
South
1/2 - 1 Mile
Lower

MI WELLS **MI6000000355944**

WELLS:

Well ID:	38000021233	Permit #:	W3322
Owner:	JOSEPH PORTUESI	Well Depth (ft):	117
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	23-2033	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	05-OCT-91
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	112
Screen Start Depth (ft):	112	Screen End Depth (ft):	117
Static Water Level (ft):	26	Flowing:	N
Test Drawdown Depth (ft):	117	Test Hours:	2
Test Rate:	40	Test Method:	UNK
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

I45
SSE
1/2 - 1 Mile
Lower

MI WELLS **MI6000000345049**

WELLS:

Well ID:	38000008166	Permit #:	w12721
Owner:	THOMAS HINES BUILDER, INC.		
Well Depth (ft):	122	Well Type:	Household
Other Type Info:	Not Reported	Well Status:	Active
Other Status Info:	Not Reported	Water Supply Serial #:	0
Well #:	Not Reported	Driller ID:	81-2014
Drill Method:	ROTARY	Other Method Info:	Not Reported
Construction Date:	26-AUG-04	Case Type:	PVC Plastic
Other Casing Info:	Not Reported	Case Diameter (in):	5
Case Depth (ft):	112	Screen Start Depth (ft):	112
Screen End Depth (ft):	122	Static Water Level (ft):	9
Flowing:	N	Test Drawdown Depth (ft):	122
Test Hours:	2	Test Rate:	100
Test Method:	AIR	Well Grouted:	Y
Pump Capacity (gpm):	0	Elevation (ft):	0
Specific Capacity:	0	Rock Top (ft):	0

I46
SSE
1/2 - 1 Mile
Lower

MI WELLS **MI6000000345230**

WELLS:

Well ID:	38000008371	Permit #:	W12721
Owner:	THOMAS HINES BLDR INC	Well Depth (ft):	122
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	81-2014	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	26-AUG-04
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	112
Screen Start Depth (ft):	112	Screen End Depth (ft):	122
Static Water Level (ft):	29	Flowing:	N
Test Drawdown Depth (ft):	122	Test Hours:	2
Test Rate:	100	Test Method:	AIR
Well Grouted:	Y	Pump Capacity (gpm):	0
Elevation (ft):	0	Specific Capacity:	0
Rock Top (ft):	0		

47
South
1/2 - 1 Mile
Lower

MI WELLS **MI6000000355334**

WELLS:

Well ID:	38000020623	Permit #:	W6252
Owner:	REESE BLAIR/WOODBROOK CONST		
Well Depth (ft):	115	Well Type:	Household

Other Type Info:	Not Reported	Well Status:	Active
Other Status Info:	Not Reported	Water Supply Serial #:	0
Well #:	Not Reported	Driller ID:	81-0624
Drill Method:	ROTARY	Other Method Info:	Not Reported
Construction Date:	18-AUG-98	Case Type:	PVC Plastic
Other Casing Info:	Not Reported	Case Diameter (in):	5
Case Depth (ft):	105	Screen Start Depth (ft):	105
Screen End Depth (ft):	115	Static Water Level (ft):	41
Flowing:	N	Test Drawdown Depth (ft):	48
Test Hours:	2	Test Rate:	12
Test Method:	UNK	Well Grouted:	Y
Pump Capacity (gpm):	12	Elevation (ft):	0
Specific Capacity:	0	Rock Top (ft):	0

48
South
1/2 - 1 Mile
Lower

MI WELLS **MI6000000343606**

WELLS:

Well ID:	38000006218	Permit #:	11580
Owner:	JOHN OLEKSIAK	Well Depth (ft):	57
Well Type:	Household	Other Type Info:	Not Reported
Well Status:	Active	Other Status Info:	Not Reported
Water Supply Serial #:	0	Well #:	Not Reported
Driller ID:	38-0167	Drill Method:	ROTARY
Other Method Info:	Not Reported	Construction Date:	24-MAR-03
Case Type:	PVC Plastic	Other Casing Info:	Not Reported
Case Diameter (in):	5	Case Depth (ft):	53
Screen Start Depth (ft):	53	Screen End Depth (ft):	57
Static Water Level (ft):	24	Flowing:	N
Test Drawdown Depth (ft):	29	Test Hours:	1
Test Rate:	20	Test Method:	TSTPUM
Well Grouted:	Y	Pump Capacity (gpm):	12
Elevation (ft):	0	Specific Capacity:	.68965517
Rock Top (ft):	0		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

1
West **OIL_GAS** **MIOG13000038986**
1/4 - 1/2 Mile

OIL_GAS:

API #:	21075607720000	Well #:	2-23
Permit #:	60772	Completion Date:	0
Plug Date:	Not Reported	Well Type:	Location
Well Status:	Terminated Permit	Bore Type:	Oil and Gas Test
Slant:	D	Total Depth Drilled (ft):	0
True Vertical Depth (ft):	0	Kickoff Point of TVD:	0
Deepest Formation:	Not Reported	Formation Tops:	Not Reported
Field Name:	Not Reported	Production Formation:	Not Reported
Production Unit #:	Not Reported	Lease Name:	Babinski
Operator #:	6513	Company Name:	Zackson Resources Inc
Surface Owner:	BABINSKI, MARK & KIMBERLY	State Owned Land:	0
Federally Owned Land:	0	H2S Concentration:	0
Permit Date:	02-JUL-13		

2
SW **OIL_GAS** **MIOG13000038979**
1/4 - 1/2 Mile

OIL_GAS:

API #:	21075606540000	Well #:	1-23
Permit #:	60654	Completion Date:	0
Plug Date:	21-MAY-14	Well Type:	Dry Hole
Well Status:	Plugging Approved	Bore Type:	Oil and Gas Test
Slant:	D	Total Depth Drilled (ft):	4645
True Vertical Depth (ft):	4588	Kickoff Point of TVD:	0
Deepest Formation:	PRAIRIE DU CHIEN	Formation Tops:	K
Field Name:	Not Reported	Production Formation:	Not Reported
Production Unit #:	Not Reported	Lease Name:	Walsh
Operator #:	6513	Company Name:	Zackson Resources Inc
Surface Owner:	WALSH FAMILY TRUST	State Owned Land:	0
Federally Owned Land:	0	H2S Concentration:	0
Permit Date:	07-NOV-12		

3
SSW **OIL_GAS** **MIOG13000038993**
1/4 - 1/2 Mile

OIL_GAS:

API #:	21075608600000	Well #:	1-26
Permit #:	60860	Completion Date:	0
Plug Date:	21-MAY-14	Well Type:	Dry Hole
Well Status:	Plugging Approved	Bore Type:	Oil and Gas Test
Slant:	V	Total Depth Drilled (ft):	1370
True Vertical Depth (ft):	0	Kickoff Point of TVD:	0
Deepest Formation:	ANTRIM	Formation Tops:	K
Field Name:	Not Reported	Production Formation:	Not Reported
Production Unit #:	Not Reported	Lease Name:	Champanois
Operator #:	6513	Company Name:	Zackson Resources Inc

Surface Owner:	CLARENCE & DEBERA CHAMPANOIS		
State Owned Land:	0	Federally Owned Land:	0
H2S Concentration:	0	Permit Date:	15-NOV-13

4
ENE **OIL_GAS** **MIOG13000038427**
1/4 - 1/2 Mile

OIL_GAS:

API #:	21075236560000	Well #:	1
Permit #:	23656	Completion Date:	0
Plug Date:	Not Reported	Well Type:	Dry Hole
Well Status:	Plugging Approved	Bore Type:	Oil and Gas Test
Slant:	V	Total Depth Drilled (ft):	4650
True Vertical Depth (ft):	0	Kickoff Point of TVD:	0
Deepest Formation:	PRAIRIE DU CHIEN	Formation Tops:	K
Field Name:	Not Reported	Production Formation:	Not Reported
Production Unit #:	Not Reported	Lease Name:	Watkins, F C Farms, Inc
Operator #:	2223	Company Name:	Marathon Oil Company
Surface Owner:	Not Reported	State Owned Land:	0
Federally Owned Land:	0	H2S Concentration:	0
Permit Date:	18-OCT-61		

5
NNW **OIL_GAS** **MIOG13000038980**
1/2 - 1 Mile

OIL_GAS:

API #:	21075606610000	Well #:	3-23
Permit #:	60661	Completion Date:	0
Plug Date:	Not Reported	Well Type:	Location
Well Status:	Terminated Permit	Bore Type:	Oil and Gas Test
Slant:	V	Total Depth Drilled (ft):	0
True Vertical Depth (ft):	0	Kickoff Point of TVD:	0
Deepest Formation:	Not Reported	Formation Tops:	Not Reported
Field Name:	Not Reported	Production Formation:	Not Reported
Production Unit #:	Not Reported	Lease Name:	Everhart
Operator #:	6513	Company Name:	Zackson Resources Inc
Surface Owner:	EVERHART, TIMOTHY & KATHY	State Owned Land:	0
Federally Owned Land:	0	H2S Concentration:	0
Permit Date:	19-NOV-12		

6
SW **OIL_GAS** **MIOG13000038966**
1/2 - 1 Mile

OIL_GAS:

API #:	21075605170000	Well #:	2-26 HD1
Permit #:	60517	Completion Date:	0
Plug Date:	Not Reported	Well Type:	Oil Well
Well Status:	Temporarily Abandoned	Bore Type:	Oil and Gas Test
Slant:	H	Total Depth Drilled (ft):	6705
True Vertical Depth (ft):	4254	Kickoff Point of TVD:	546

Deepest Formation:	BLACK RIVER	Formation Tops:	K
Field Name:	Napoleon	Production Formation:	TRENTON-BLACK RIVER(O)
Production Unit #:	21551.00000000	Lease Name:	Hardcastle
Operator #:	104	Company Name:	West Bay Exploration Company
Surface Owner:	HARDCASTLE, DONALD & MICHELINA		
State Owned Land:	0	Federally Owned Land:	0
H2S Concentration:	0	Permit Date:	17-FEB-12

A7
NE
1/2 - 1 Mile

OIL_GAS **MIOG13000038159**

OIL_GAS:

API #:	21075194440000	Well #:	1
Permit #:	19444	Completion Date:	0
Plug Date:	Not Reported	Well Type:	Dry Hole
Well Status:	Plugging Approved	Bore Type:	Oil and Gas Test
Slant:	V	Total Depth Drilled (ft):	4700
True Vertical Depth (ft):	0	Kickoff Point of TVD:	0
Deepest Formation:	TREMPEALEAU	Formation Tops:	K
Field Name:	Not Reported	Production Formation:	Not Reported
Production Unit #:	Not Reported	Lease Name:	Watkins Farms Inc
Operator #:	3415	Company Name:	Taggart Co The
Surface Owner:	Not Reported	State Owned Land:	0
Federally Owned Land:	0	H2S Concentration:	0
Permit Date:	14-JAN-55		

A8
NE
1/2 - 1 Mile

OIL_GAS **MIOG13000038160**

OIL_GAS:

API #:	21075194440100	Well #:	1
Permit #:	19444	Completion Date:	0
Plug Date:	Not Reported	Well Type:	Dry Hole
Well Status:	Plugging Approved	Bore Type:	Oil and Gas Test
Slant:	V	Total Depth Drilled (ft):	4700
True Vertical Depth (ft):	0	Kickoff Point of TVD:	0
Deepest Formation:	TREMPEALEAU	Formation Tops:	K
Field Name:	Not Reported	Production Formation:	Not Reported
Production Unit #:	Not Reported	Lease Name:	Watkins Farms Inc
Operator #:	3415	Company Name:	Taggart Co The
Surface Owner:	Not Reported	State Owned Land:	0
Federally Owned Land:	0	H2S Concentration:	0
Permit Date:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: MI Radon

Radon Test Results

Zipcode	Test Date	LT Sign	Result
49230	2/18/1999		1.5
49230	4/10/2006		1.6
49230	10/23/2006		1.5
49230	6/27/2005		1.5
49230	1/8/2005		1.4
49230	11/4/1996		4.4
49230	3/23/1995		4.2
49230	11/13/2003		4.0
49230	10/28/1995		4.1
49230	3/29/2006		4.0
49230	11/13/2007		4.0
49230	2/23/2009		4.0
49230	3/18/2003		4.1
49230	2/7/2004		4.1
49230	5/9/1997		4.3
49230	2/6/2006		4.2
49230	6/7/2008		4.2
49230	11/29/2008		7.7
49230	2/17/2004		7.2
49230	4/21/1999		6.9
49230	12/10/2007		6.6
49230	4/8/1994		7.6
49230	5/2/1994		6.8
49230	3/7/2006		6.4
49230	2/10/2009		6.3
49230	1/30/2009		6.3
49230	3/26/2001		6.2
49230	4/8/1995		5.6
49230	9/15/2009		5.2
49230	4/28/1995		4.9
49230	5/9/1995		4.8
49230	12/26/1995		4.7
49230	4/20/2001		5.9
49230	3/10/2009		5.5
49230	4/4/1994		5.1
49230	1/6/2003		4.7
49230	2/3/1998		4.6
49230	5/3/1995		5.0
49230	11/22/2008		5.0
49230	4/22/2000		4.7
49230	5/11/2009		5.3
49230	8/4/2003		5.2
49230	1/26/2009		8.0
49230	4/25/2003		7.8
49230	6/3/2002		7.8
49230	11/29/2008		7.8
49230			

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

	2/10/2009		7.0
49230	1/15/2007		95.1
49230	12/2/2004		18.1
49230	5/9/2002		17.7
49230	3/20/1997		17.6
49230	2/5/2002		2.0
49230	4/20/1995		42.5
49230	8/28/1996		22.5
49230	3/27/2000		17.0
49230	5/6/2002		16.1
49230	2/13/2006		15.8
49230	2/27/2006		13.5
49230	7/2/2001		12.8
49230	4/4/2001		12.5
49230	12/18/2009		10.1
49230	11/17/2009		12.1
49230	6/3/2002		9.9
49230	4/25/1995		8.8
49230	7/3/1998		10.4
49230	3/16/1998		9.6
49230	3/9/1998		10.3
49230	10/26/1995		10.2
49230	5/9/1997		9.5
49230	2/7/2003		9.4
49230	3/20/2004		2.1
49230	6/3/2002		9.3
49230	4/8/1994		8.2
49230	3/20/1997		8.1
49230	4/18/2002		8.1
49230	4/12/1994		9.2
49230	11/25/1995		9.1
49230	7/6/1998		8.2
49230	2/4/2006		9.1
49230	5/6/2002		21.3
49230	5/6/2002		20.1
49230	12/17/2007		19.8
49230	10/26/2004		26.9
49230	2/2/2009		25.9
49230	2/2/2006		2.9
49230	11/3/2007		2.9
49230	3/11/2006		2.5
49230	10/27/2001		2.5
49230	3/3/2003		2.2
49230	1/27/2003		2.2
49230	3/1/1999		2.1
49230	11/7/2006		2.3
49230	4/14/2003		2.7
49230	3/19/2004		2.6
49230	3/3/2006		2.8
49230	2/1/1995		2.7
49230	11/8/1999		2.6
49230	2/26/1994		2.6
49230	9/14/2009		2.7
49230	2/9/2006		3.6
49230	4/19/1995		3.6
49230	4/21/1995	<	0.3
49230			

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

	7/31/2009		3.5
49230	5/7/2004		3.4
49230	4/11/2006		3.4
49230	11/13/2000	<	0.3
49230	3/6/2003		3.2
49230	1/13/2004		3.1
49230	1/29/2004		3.2
49230	5/24/2006		3.2
49230	6/10/2003		3.3
49230	4/21/2006		3.3
49230	3/2/2009		3.2
49230	11/12/2001		3.0
49230	3/1/2004		3.9
49230	2/5/2005		3.0
49230	2/3/2007		3.9
49230	1/26/2006		3.9
49230	1/14/2008		3.9
49230	4/14/2003		3.1
49230	2/20/1998		3.8
49230	3/29/1999		3.6
49230	11/6/2002		3.8
49230	3/3/2003		3.8
49230	3/3/2003		3.8
49230	4/6/1998		3.2
49230	1/21/1997		3.2
49230	11/3/2003		1.9
49230	10/24/2006		1.9
49230	4/20/2007		1.8
49230	2/16/1998		1.7
49230	5/7/2004		1.7
49230	2/16/2005		1.7
49230	9/13/2001	<	0.3
49230	11/1/1995		0.4
49230	2/13/2003	<	0.3
49230	3/17/1995		0.4
49230	9/10/2003	<	0.3
49230	9/6/2007	<	0.3
49230	2/28/2002	<	0.3
49230	9/8/2005	<	0.3
49230	6/27/1997	<	0.3
49230	4/4/2001		0.6
49230	5/4/2009		0.9
49230	3/27/2009		1.4
49230	6/27/1997		1.3
49230	5/12/1995		1.3
49230	2/8/2008		1.2
49230	3/17/2003		1.1
49230	12/5/2005		1.1
49230	11/1/2004		1.0
49230	2/20/1998		1.0
49230	2/16/2000		1.0
49230	4/4/1994		1.0
49230	10/23/2006		1.0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

Federal EPA Radon Zone for JACKSON County: 1

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 49230

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	Not Reported	Not Reported	Not Reported	Not Reported
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	4.550 pCi/L	50%	50%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Department of Natural Resources
Telephone: 517-241-2254

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Data
Source: Department of Environmental Quality
Telephone: 517-335-9218
The data in this file was obtained from Wellogic, the Michigan Department of Environmental Quality Statewide Groundwater Database (SGWD). Wellogic contains approximately 425,000 water well records found within the State of Michigan, and although it represents the best available data, it cannot be considered a complete database of all the wells or well records in existence. Locations of verified municipal and private water well sites compiled from Michigan Department of Public Health, Water Well and Pump Records. Available in the following MI counties: Calhoun, Eaton, Genesee, Ingham, Jackson, Kalamazoo, Kent, Midland, Muskegon, Oakland, Ottawaw, Saginaw, St. Clair, Washtenaw.

OTHER STATE DATABASE INFORMATION

Michigan Oil and Gas Wells
Source: Department of Environmental Quality
Telephone: 517-241-1528
Locations of oil and gas wells are compiled from permit records on file at the Geological Survey Division (GSD), Michigan Department of Natural Resources.

RADON

State Database: MI Radon
Source: Department of Environmental Quality
Telephone: 517-335-9551
Radon Test Results

Michigan Radon Test Results
Source: Department of Environmental Quality
Telephone: 517-335-8037
These results are from test kits distributed by the local health departments and used by Michigan residents. There is no way of knowing whether the devices were used properly, whether there are duplicates (or repeat verification) test (i.e., more than one sample per home), etc.

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

STREET AND ADDRESS INFORMATION

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EGLE

Enforcement Actions - Perfected Lien List

Contact

Katelyn Wysocki
Wysockik@Michigan.gov
517-614-2058

The Michigan Department of Environment, Great Lakes, and Energy (EGLE), Remediation and Redevelopment Division (RRD) has perfected liens on property 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. The following is a current listing of liens perfected by the RRD on property as of the date that appears on this list. The list will be updated only when the RRD has perfected a new lien on a property or has released a lien from a property. A new

date will then appear on the list. This list does not include any lien(s) that may have been perfected by another EGLE Division or other entity. The information provided herein cannot be construed or interpreted as legal verification that a perfected lien does not exist on a particular property, or that a lien is the only perfected lien on a property. To obtain legal verification, you must access official records from the appropriate County Register of Deeds and/or the Michigan Secretary of State when applicable.

Downloadable Excel Spreadsheet

Updated: July 22, 2024; newly added items are indicated with yellow highlight - sort by 'Date Item Posted' to see the latest postings first. Note that documents posted prior to June 2023 do not have a date item posted.

Show 10 entries

Jackson

County	Township	City	Address	Description	Lot No	Section	Tow
No matching records found							

Showing 0 to 0 of 0 entries (filtered from 104 total entries)

Previous Next

EGLE

Enforcement Actions - Perfected Lien List

Copyright State of Michigan

EGLE

Enforcement Actions - Perfected Lien List

Contact

Katelyn Wysocki
Wysockik@Michigan.gov
517-614-2058

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date will then appear on the list. This list does not include any lien(s) that may have been perfected by another EGLE Division or other entity. The information provided herein cannot be construed or interpreted as legal verification that a perfected lien does not exist on a particular property, or that a lien is the only perfected lien on a property. To obtain legal verification, you must access official records from the appropriate County Register of Deeds and/or the Michigan Secretary of State when applicable.

Downloadable Excel Spreadsheet

Updated: July 22, 2024; newly added items are indicated with yellow highlight - sort by 'Date Item Posted' to see the latest postings first. Note that documents posted prior to June 2023 do not have a date item posted.

Show 10 entries

washtenaw

County	Township	City	Address	Description	Lot No	Section	Tow
No matching records found							

Showing 0 to 0 of 0 entries (filtered from 104 total entries)

Previous Next

EGLE

Enforcement Actions - Perfected Lien List

Copyright State of Michigan

Quick Search | Advanced Search | Site ID | Recent Sites

Site | Contacts

413137 / MIR000039875 TROLZ FARM
14950 HORNING RD, BROOKLYN, MI 49230

Site

Site Name

TROLZ FARM

Site Identification

WDS ID Number:	413137	History...
Site ID Number:	MIR000039875	History...
Legal Site Name:	TROLZ FARM	History...
Specific Site Name:	TROLZ FARM	History...
District:	JACKSON	

Address Identification

Location Address	**Mailing Address**
14950 HORNING RD BROOKLYN MI 49230-9545	PO BOX 249 JACKSON MI 49204-0249
History...	History...

Miscellaneous

Tax Number:	History...
No Number Because:	

GPS Coordinates (provide five decimal places)

Latitude Coordinate:

Longitude Coordinate:

Collection Method:

Receives All Waste?: No

Railroad?: No

Facility on Indian Reservation Land?: No

Utilization Activities:

Scrap Tires Activities:

Scrap Tires Acres:

NAICS Codes (up to four six-digit codes):

(The list of NAICS codes in WDS is based on the 2007 definitions provided by the U.S.Census Bureau.)

000000 - No valid NAICS code to date (INACTIVE)

Haz Waste Contact

First Name:	FRANK	**M.I.:**	
Last Name:	MALEWITZ		
Phone Number:	(517) 764-0700	**Ext:**	**Fax:**
Alternate Phone:			
Email Address:			

Owner/Operator (1) | **Activities (1)** | Site ID Fees (0) | Comments (1)

Petitions (0) | Used Oil Biennial Reports (0) | Parceling (0) | Institutional Controls (0)

Exemptions (0)

Discovery Date	Source of Information	Summary
3/14/2001	State	Site in business but no longer generating waste

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State Web Sites | Privacy Policy | Link Policy | Accessibility Policy | Security Policy | Michigan News

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HD

DEQ

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTE AND HAZARDOUS MATERIALS DIVISION

FACILITY INSPECTION REPORT

Owner Name & Address:

Glynn Trolz & Associates Inc
PO Box 249
Jackson, MI 49204-0249

Location of Tanks:

Glynn Trolz & Associates Inc
14950 Horning Rd
Brooklyn, MI 49230-9545
County - Jackson
Facility ID - 00012122

RECEIVED FEB 23 2009

ATTENTION: Glynn Trolz & Associates Inc

An Existing Facility Inspection was conducted on February 9, 2009, for the above-referenced facility for compliance with Part 211, Underground Storage Tank Regulations, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the Michigan Underground Storage Tank Rules (MUSTR), 1999 AACS R 29.2101 et seq.; and the applicable sections of the rules for the Storage and Handling of Flammable and Combustible Liquids, 2003 AACS R 29.5101 et seq. The inspection showed that the facility is approved.

The inspection and violations (if any) were discussed with Mr. Gordon Huffman at the time of the inspection.

If you have additional questions concerning this matter, please contact me.

Mike Vinitski
Hazardous Materials Storage Inspector
Jackson District Office
301 E Louis B Glick Highway
Jackson, MI 49201-1556
Phone: (517) 780-7498
Fax: 517-780-7855
Email: vinitskim@michigan.gov

2-9-09
Date

DEQ MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY - WASTE AND HAZARDOUS MATERIALS DIVISION

AUTOMOTIVE SERVICE STATION CHECKLIST

INSTRUCTIONS: The Hazardous Materials Storage Inspector shall complete this checklist and attach it to an inspection report, one to be retained in the District file and one for the Headquarters file. All boxes shall be completed inserting N/A where non-applicable.

FACILITY NAME: Gilson Trolz + Assoc. | FACILITY ID NUMBER: 12122

CONTACT PERSON ON SITE: Gordon Hoffman | Phone # 517-764-0700 | FACILITY TYPE: Public ✓ Private

OPERATION SECTION

SECTION		CODE	VIO	PASS
6.7	Emergency power disconnect	S93		✓
9.2.5.2	Fire extinguisher, 100 feet	S59		✓
9.4.5	Dispenser in view and communicate	S92		✓
280.93	Financial Responsibility	U92		✓

SECTION		CODE	VIO	PASS
280.22h	Display proof of registration	S63		✓
280.22a	Registration submitted 30 days	S62		✓
280.22a	Properly registered & fees paid	S61		✓
6.2.1	Electric Cert.	U70		✓
	Miscellaneous violation	S50		

RECORDS

280.34	Maintenance records	S65		✓
280.44a	Line leak detector tested	U95		✓
280.41b(1)	Line tightness test - pressure	U88		✓
280.41b	Line test - suction every 3 years	U89		✓
6.3.9.1.	Emergency valve tested	S94		✓
280.34	Gen. Record Keeping Violation	S60		

280.34	Release det records (2yrs & 5 yrs)	S67		✓
280.31b	C/P tested 6 months & 3 years	U30		✓
280.31c	Impressed current, 60 day log	S35		✓
280.34	Cathodic protection records*	S64		✓
*NOTE-	Includes CP upgrade testing results			

RELEASE DETECTION

280.40	Release detection for tanks	U71		✓
280.43a	Inventory control (not stand alone)	S42		✓
280.43b	Manual gauging (less than 550)	S43		✓
280.43c	Tank tightness testing	S44		✓
280.43d	Automatic tank gauging	U72		✓

280.43e	Vapor monitoring (approval req.)	U73		✓
280.43f	Groundwater monit. (Stand alone)	U74		✓
280.43g	Interstitial monitoring (Stand alone)	U75		
280.43h	S.I.R (Stand alone)	U93		✓
280.43h	Other	S49		

DISPENSER SECTION

6.1	Dispenser violation	S10		✓
6.2.3.	Dispenser loc. (10' prop & openings)	S11		✓
6.3.4.	Disp. Protected; damage/secured	S13		✓
6 5 1.	Dispenser hose 18 feet or less	S14		✓
6.6.6.	Splash guard on nozzle	S91		✓
9 2.5.4.	No smoking, stop motor, container	S22		✓
9.2.5.4	Remain out of vehicle in view	S23		✓

6.5.2.	Breakaway on hose	S15		✓
6.3.4.1.	Containment under dispenser	S17		✓
6.3.9.	Emergency valve installed	S18		✓
6.1.1.	Automatic self-closing nozzle	S19		✓
9.4.4.	Operating instructions posted	S25		✓
6.3.3.	Operates only with handle removed	S12		✓
6.3.5.	Class 1 Disp. 20 feet from fuel oil	none		✓

UNDERGROUND TANK SECTION

280.20	Tank misc. violation	S30		✓
280.20c	Spill containment - Testing request	U51		✓
280.20c	Spill containment - Inoperative	U101		✓
2.3.3.4.3.	Tight fitting hose conn (1,000 & up)	U44		✓
280.20c	Overfill prevention - Testing request	U52		✓
280.20C	Overfill Prevention - Inoperative	U102		✓

2.3.3.4.	Location of fill pipe & identified	U46		✓
3.7.2.1.	Vent pipes, 12 feet Class 1 liquid	U32		✓
3.7.2.4.	Vent pipes, Class II & IIIA	U33		✓
2.3.3.4.	Drop tube: 6 inches of tank bottom	U45		✓
2.2.3.1	Tanks Proper design & Construction	U12		✓
280.20	Cathodic protection for tanks	U29		✓

PIPING SECTION

280.40	Release detection for piping	U71		✓
280.44a	Line leak detector installed	U76		✓
280.20	Cathodic protection for piping	U29		✓

280.44c	Interstitial (monthly) monitoring	U94		✓
3.2.2.	Pipe leaks	U62		✓
280.20b	Piping shall be approved material	U61		✓

Tank Construction _____ Piping Material _____ Has GPS readings been taken _____

Piping; Suction ____ Pressure____ Sump Sensors: Yes____ No ____ Tank Monitor Model _____

COMMENTS: App.

INSPECTOR: _____ DATE 2-9-09

(EQP 3836 REV. 3/06)

DEQ

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTE AND HAZARDOUS MATERIALS DIVISION

FACILITY INSPECTION REPORT

KLW FEB 2 3 2009

Owner Name & Address:

Glynn Trolz & Associates Inc
PO Box 249
Jackson, MI 49204-0249

Location of Tanks:

Glynn Trolz & Associates Inc
14950 Horning Rd
Brooklyn, MI 49230-9545
County - Jackson
Facility ID - 00012122

ATTENTION: Glynn Trolz & Associates Inc

An Existing Facility Inspection was conducted on February 9, 2009, for the above-referenced facility for compliance with Part 211, Underground Storage Tank Regulations, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the Michigan Underground Storage Tank Rules (MUSTR), 1999 AACS R 29.2101 et seq.; and the applicable sections of the rules for the Storage and Handling of Flammable and Combustible Liquids, 2003 AACS R 29.5101 et seq. The inspection showed that the facility is approved.

The inspection and violations (if any) were discussed with Mr. Gordon Huffman at the time of the inspection.

If you have additional questions concerning this matter, please contact me.

Mike Vinitski
Hazardous Materials Storage Inspector
Jackson District Office
301 E Louis B Glick Highway
Jackson, MI 49201-1556
Phone: (517) 780-7498
Fax: 517-780-7855
Email: vinitskim@michigan.gov

2-9-09
Date

DEQ

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTE AND HAZARDOUS MATERIALS DIVISION

FACILITY INSPECTION REPORT

Owner Name & Address:

Glynn Trolz & Associates Inc
PO Box 249
Jackson, MI 49204-0249

Location of Tanks:

Glynn Trolz & Associates Inc
14950 Horning Rd
Brooklyn, MI 49230-9545
County - Jackson
Facility ID - 00012122

KLW OCT 0 4 2005

ATTENTION: GARY TROLZ

An Existing Facility Inspection was conducted on September 27, 2005, at the above-subject facility for compliance with Part 211, Underground Storage Tank Regulations, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), the Michigan Underground Storage Tank Rules (MUSTR), 1999 AACS R 29.2101 et seq. and the applicable sections of the rules for the Storage and Handling of Flammable and Combustible Liquids, 2003 AACS R 29.5101 et seq. The inspection showed that the facility is approved.

FACILITY APPROVED. ATG GAUGE LOCKED ON SITE.

The inspection and violations (if any) were discussed with RICHARD SHONG at the time of the inspection.

If you have additional questions concerning this matter, please contact me.

J Haehnle

9-27-05

James Haehnle
Hazardous Materials Storage Inspector
Jackson District Office
301 E Louis B Glick Hgwy
Jackson, MI 49201-1556
Phone: (517) 780-7498
Fax: 517-780-7855

Date

SEP 2 9 2005

Waste and Hazardous
Materials Divis

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

JENNIFER M. GRANHOLM
GOVERNOR

STEVEN E. CHESTER
DIRECTOR

May 2, 2005

Glynn Trolz & Associates Inc
PO Box 249
Jackson, MI 49204

Dear Owner/Operator:

SUBJECT: Nonsubmittal of Financial Responsibility (i.e. Pollution Insurance) for Underground Storage Tanks

The Department of Environmental Quality, Waste and Hazardous Materials Division (WHMD), has not received proof of financial responsibility (FR) or the FR documentation received was inadequate for the underground storage tanks (USTs) located at Glynn Trolz & Associates Inc, 14950 Horning Rd (formerly), Brooklyn, Michigan, Facility Number 00012122.

Pursuant to Rule 61, Section 280.90, of the Michigan Underground Storage Tank Rules, 1999 AACS, R 29.2161 et seq., owners/operators of petroleum USTs are required to provide proof of FR for taking corrective action and for compensating third parties for bodily injury and property damage arising from a release by petroleum USTs.

You were notified of this requirement on November 8, 2004, in your annual UST billing.

If the WHMD does not receive proof of FR within 30 days of receipt of this letter, your USTs are subject to red tagging and as such cannot be filled. Further, you may be subject to escalated enforcement action.

If you have previously submitted FR to the WHMD and are in receipt of this letter, you must resubmit. Also, be sure the correct address of where the USTs are located, which are covered under the FR mechanism is noted on the document or as an attachment. Please include a copy of this letter with your submittal to the address below or you may fax your submittal to 517-335-2245 or email to wieberk@michigan.gov.

If you have any questions, please contact me or visit our website at www.michigan.gov/deq.

Sincerely,

Kevin Wieber, HMSI Specialist
Waste and Hazardous Materials Division
517-335-7260

HQ

DEQ

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTE AND HAZARDOUS MATERIALS DIVISION

FACILITY INSPECTION REPORT

RECEIVED NOV 0 1 2002

Owner Name & Address:

Glynn Trolz & Associates Inc
PO Box 249
Jackson, MI 49204 - 0249

Location of Tanks:

Glynn Trolz & Associates Inc
14950 Horning Rd
Brooklyn, MI 49230 - 9545
County - Jackson
Facility Type - Private Service Station
Facility ID.- 00012122

ATTENTION: Glynn Trolz & Associates Inc

A(n) existing facility inspection was conducted on October 29, 2002, at the above-subject facility for compliance with Part 211, Underground Storage Tank Regulations, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), the Michigan Underground Storage Tank Rules (MUSTR), 1999 AACS R 29.2101 et seq. and the applicable sections of the rules for the Storage and Handling of Flammable and Combustible Liquids, 1992 AACS R 29.4101 et seq. The inspection showed that the facility is approved.

GPS RECORDED.

The inspection and violations (if any) were discussed with GORDON HUFFMAN at the time of the inspection.

If you have additional questions concerning this matter, please contact me.

10-28-02

James Haehnle
Hazardous Materials Storage Inspector
Jackson District Office
301 E Louis B Glick Hgwy
Jackson, MI 49201 - 1556
Phone: (517) 780-7498
Fax: 517-780-7855

Date

UNDERGROUND STORAGE TANK DIVISION DEQ
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
P O BOX 30157
LANSING MI 48909-7657

REGISTRATION FOR UNDERGROUND STORAGE TANKS

This information is required under "1994 PA 451." Any owner who knowingly fails to notify or submits false information shall be subject to a misdemeanor and/or civil penalties not to exceed $5,000 per day for each tank for which notification is not given or for which false information is submitted.

INSTRUCTIONS: COMPLETE THIS FORM AND SEND TO THE DEQ, UST DIVISION, AT THE ABOVE ADDRESS. NEW TANKS ARE NOT CONSIDERED REGISTERED UNTIL THE DEQ, UST DIVISION HAS RECEIVED YOUR COMPLETED FORM AND A CHECK OR MONEY ORDER MADE PAYABLE TO THE "STATE OF MICHIGAN". THE ANNUAL REGISTRATION FEE FOR EACH TANK REGISTERED WITH THE DEQ, UST DIVISION IS $100.

TYPE OF NOTIFICATION: ☐ NEW REGISTRATION ☑ AMENDED INFO

FACILITY NUMBER (If known): ILH NOV 13 1998 0-012122

one NO. OF TANKS AT FACILITY

____ NO. OF CONTINUATION SHEETS ATTACHED

I. OWNERSHIP OF TANKS

IF THIS IS A NEW OWNER'S ADDRESS, PLEASE CHECK ☐

OWNER NAME (Corporation/Individual, etc.): Glynn Trolz and Associates, Inc.

MAILING ADDRESS: P. O. Box 249

CITY: Jackson | STATE: MI | ZIP: 49204

COUNTY: Jackson | TOWNSHIP: Leoni

TELEPHONE (Including Area Code): (517) 764-0700

OWNER ID OR SOCIAL SECURITY NUMBER: [redacted]

II. LOCATION OF TANKS

IF INFORMATION SAME AS SECTION I, PLEASE CHECK ☐

FACILITY NAME OR SITE IDENTIFIER: Glynn Trolz and Associates, Inc.

STREET ADDRESS (P.O. Box Not Acceptable): 14950 Horning Road

CITY: Brooklyn | STATE: MI | ZIP: 49230

COUNTY: Jackson | TOWNSHIP: Norvell

TELEPHONE (Including Area Code): (517) 764-0700

III. TYPE OF OWNER

☐ FEDERAL GOVERNMENT
☐ STATE GOVERNMENT
☐ LOCAL GOVERNMENT
☐ COMMERCIAL
☑ PRIVATE

IV. INDIAN LANDS

☐ TANKS ARE LOCATED ON LAND WITHIN AN INDIAN RESERVATION OR ON OTHER INDIAN TRUST LANDS.
☐ TANKS ARE OWNED BY NATIVE AMERICAN NATION, TRIBE, OR INDIVIDUAL.
TRIBE OR NATION:

V. TYPE OF FACILITY

☐ GAS STATION
☐ PETROLEUM DISTRIBUTOR
☐ AIR TAXI (AIRLINE)
☐ AIRCRAFT OWNER
☐ AUTO DEALERSHIP
☐ RAILROAD
☐ LOCAL GOVERNMENT
☐ STATE GOVERNMENT
☐ FEDERAL/NON-MILITARY
☐ FEDERAL-MILITARY
☐ COMMERCIAL
☐ INDUSTRIAL
☐ CONTRACTOR
☐ TRUCKING/TRANSPORT
☐ UTILITIES
☐ RESIDENTIAL
☑ FARM
☐ OTHER (Explain)

VI. CONTACT PERSON FOR LOCATION

NAME: Gary G. Trolz | JOB TITLE: President | TELEPHONE (Including Area Code): (517) 764-0700

VII. FINANCIAL RESPONSIBILITY

I HAVE MET THE FINANCIAL RESPONSBILITY REQUIREMENTS AS REQUIRED IN THE UST RULES ☐ (Check All Items Below That Apply)

☐ SELF INSURANCE
☑ COMMERCIAL INSURANCE
☐ RISK RETENTION GROUP
☐ GUARANTEE
☐ SURETY BOND
☐ LETTER OF CREDIT
☐ TRUST FUND
☐ OTHER METHOD ALLOWED

VIII. CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS, AND THAT BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THAT THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE.

NAME AND OFFICIAL TITLE OF OWNER OR OWNERS' AUTHORIZED REPRESENTATIVE: Frank G. Maleiwtz, Controller

SIGNATURE: Frank G. Maleiwtz

DATE: 11/12/98

EQP-3621 (Rev. 11/95)

IX. DESCRIPTION OF UNDERGROUND STORAGE TANKS (Complete For Each Tank At This Location)

TANK IDENTIFICATION NUMBER	#	#	#	#	#	#	#	#
1. STATUS OF TANKS (Check One)								
CURRENTLY IN USE	☑	☐	☐	☐	☐	☐	☐	☐
TEMPORARILY OUT OF USE**	☐	☐	☐	☐	☐	☐	☐	☐
AMENDMENT OF INFORMATION	☐	☐	☐	☐	☐	☐	☐	☐
**Also Complete Section X								
(If tanks are removed/closed, complete page 3, Section XI)								
2. DATE OF INSTALLATION								
3. ESTIMATED TOTAL CAPACITY (Gallons)								
4. MATERIAL OF CONSTRUCTION (Mark All That Apply)								
ASPHALT COATED OR BARE STEEL	☐	☐	☐	☐	☐	☐	☐	☐
CATHODICALLY PROTECTED STEEL	☐	☐	☐	☐	☐	☐	☐	☐
EPOXY COATED STEEL	☐	☐	☐	☐	☐	☐	☐	☐
COMPOSITE (Steel With Fiberglass)	☐	☐	☐	☐	☐	☐	☐	☐
FIBERGLASS REINFORCED PLASTIC	☑	☐	☐	☐	☐	☐	☐	☐
LINED INTERIOR	☐	☐	☐	☐	☐	☐	☐	☐
DOUBLE WALLED	☐	☐	☐	☐	☐	☐	☐	☐
POLYETHYLENE TANK JACKET	☐	☐	☐	☐	☐	☐	☐	☐
CONCRETE	☐	☐	☐	☐	☐	☐	☐	☐
EXCAVATION LINER	☐	☐	☐	☐	☐	☐	☐	☐
UNKNOWN	☐	☐	☐	☐	☐	☐	☐	☐
OTHER (Please specify)								
HAS TANK BEEN REPAIRED?	☐	☐	☐	☐	☐	☐	☐	☐
5. PIPING MATERIAL (Mark All That Apply)								
BARE STEEL	☐	☐	☐	☐	☐	☐	☐	☐
GALVANIZED STEEL	☐	☐	☐	☐	☐	☐	☐	☐
FIBERGLASS REINFORCED PLASTIC	☐	☐	☐	☐	☐	☐	☐	☐
COPPER	☐	☐	☐	☐	☐	☐	☐	☐
CATHODICALLY PROTECTED	☑	☐	☐	☐	☐	☐	☐	☐
DOUBLE WALLED	☐	☐	☐	☐	☐	☐	☐	☐
SECONDARY CONTAINMENT	☐	☐	☐	☐	☐	☐	☐	☐
UNKNOWN	☐	☐	☐	☐	☐	☐	☐	☐
OTHER (Please specify)								
5. PIPING (Typing) (Mark All That Apply)								
SUCTION: NO VALVE AT TANK	☑	☐	☐	☐	☐	☐	☐	☐
SUCTION: VALVE AT TANK	☐	☐	☐	☐	☐	☐	☐	☐
PRESSURE (Remote)	☐	☐	☐	☐	☐	☐	☐	☐
PRESSURE (Gravity Fed)	☐	☐	☐	☐	☐	☐	☐	☐
HAS PIPING BEEN REPAIRED?	☐	☐	☐	☐	☐	☐	☐	☐
6. SUBSTANCE CURRENTLY OR LAST STORED IN GREATEST QUANTITY BY VOLUME								
GASOLINE	☑	☐	☐	☐	☐	☐	☐	☐
DIESEL	☐	☐	☐	☐	☐	☐	☐	☐
GASOHOL	☐	☐	☐	☐	☐	☐	☐	☐
KEROSENE	☐	☐	☐	☐	☐	☐	☐	☐
(Not For Consumptive Use On Premises) FUEL OIL	☐	☐	☐	☐	☐	☐	☐	☐
USED OIL	☐	☐	☐	☐	☐	☐	☐	☐
OTHER (Please specify)								
HAZARDOUS SUBSTANCE	☐	☐	☐	☐	☐	☐	☐	☐
COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION & LIABILITY ACT (CERCLA) NAME AND/OR CHEMICAL ABSTRACT SERVICE (CAS) NUMBER								

X. TANKS OUT OF USE OR CHANGE IN SERVICE

TANK IDENTIFICATION NUMBER	#	#	#	#	#	#	#	#
1. CLOSING OF TANK								
A. ESTIMATED DATE LAST USED (Month/Day/Year)								
B. ESTIMATED DATE TANK REMOVED/ CLOSED IN PLACE (Month/Day/Year)								
C. TANK WAS REMOVED FROM GROUND	☐	☐	☐	☐	☐	☐	☐	☐
D. TANK FILLED WITH INERT MATERIAL (Sand, Concrete, etc.) DESCRIBE TYPE OF FILL USED AND REASON TANK WAS NOT REMOVED	☐	☐	☐	☐	☐	☐	☐	☐
E. CHANGE IN SERVICE	☐	☐	☐	☐	☐	☐	☐	☐

REMINDER: A SITE ASSESSMENT MUST BE COMPLETED, UNLESS YOU REPORT A CONFIRMED RELEASE

XI. CERTIFICATION OF COMPLIANCE (Complete For All New And Upgraded Tanks At This Location)

1. INSTALLATION															
A. INSTALLER CERTIFIED BY TANK AND PIPING MANUFACTURERS	☑		☐		☐		☐		☐		☐		☐		☐
B. INSTALLER CERTIFIED OR LICENSED BY THE UST DIVISION	☐		☐		☐		☐		☐		☐		☐		☐
C. INSTALLATION INSPECTED BY A REGISTERED ENGINEER	☐		☐		☐		☐		☐		☐		☐		☐
D. INSTALLATION INSPECTED AND APPROVED BY UST DIVISION	☐		☐		☐		☐		☐		☐		☐		☐
E. ANOTHER METHOD ALLOWED BY UST DIVISION (Please Specify)															
2. RELEASE DETECTION	TANK	PIPE	TANK	PIPE	TANK	PIPE	TANK	PIPE	TANK	PIPE	TANK	PIPE	TANK	PIPE	TANK	PIPE
A. MANUAL (Static) TANK GAUGING	☐		☐		☐		☐		☐		☐		☐		☐	
B. TANK TIGHTNESS TESTING	☐		☐		☐		☐		☐		☐		☐		☐	
C. INVENTORY CONTROL	☐		☐		☐		☐		☐		☐		☐		☐	
D. AUTOMATIC TANK GAUGING	☑		☐		☐		☐		☐		☐		☐		☐	
E. VAPOR MONITORING	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
F. GROUNDWATER MONITORING	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
G. INTERSTITIAL MONITORING DOUBLE WALLED TANK/PIPING	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
H. INTERSTITIAL MONITORING SECONDARY CONTAINMENT	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
I. AUTOMATIC LINE LEAK DETECTORS	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
J. LINE TIGHTNESS TESTING	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
K. OTHER METHOD ALLOWED BY UST DIVISION (Specify)																
3. SPILL AND OVERFILL PROTECTION																
A. OVERFILL DEVICE INSTALLED	☑		☐		☐		☐		☐		☐		☐		☐	
B. SPILL DEVICE INSTALLED	☑		☐		☐		☐		☐		☐		☐		☐	
4. HAVE YOU INSTALLED IMPRESSED CURRENT CATHODIC PROTECTION?																
A. YES	☐		☐		☐		☐		☐		☐		☐		☐	
B. NO	☑		☐		☐		☐		☐		☐		☐		☐	

PLEDGE: I CERTIFY THE INFORMATION CONCERNING INSTALLATION THAT IS PROVIDED IN SECTION XI IS TRUE TO THE BEST OF MY BELIEF AND KNOWLEDGE.

INSTALLER: MIKE SNEED (NAME PRINTED) Mike Sneed (SIGNATURE) 11-6-98 (DATE)

PROJECT SUPERVISOR (POSITION) UNITED PETROLEUM EQUIP (COMPANY)

EQP-3821 (Rev. 11/95)

Glynn Trolz
AND ASSOCIATES, INC.

PHONE 517 - 764-0700
FAX 517 - 764-5180

OIL AND GAS PRODUCERS

3460 ANN ARBOR RD. P. O. BOX 249 JACKSON, MICHIGAN 49204

November 12, 1998

Underground Storage Tank Division
Michigan Department of Environmental Quality
P. O. Box 30157
Lansing, MI 48909-7657

RECEIVED
98 NOV 13 PM 2:54
DEPT OF
ENVIRONMENTAL QUALITY
UST DIVISION

RE: Facility #0-012122

Dear Sir or Madam:

An amended Underground Storage Registration form is enclosed.

With these upgrades, this facility meets all requirements set forth by the EPA and State of Michigan for the December 22, 1998 standards.

Sincerely,

GLYNN TROLZ AND ASSOCIATES, INC.

Frank G. Malewitz
Corporate Controller

Facility No: 0-012122 Comp No: 080598

Page 01 of 01 **Michigan Department of Environmental Quality**
Storage Tank Division

INSPECTION REPORT

Type of Inspection Performed: SITE INVESTIGATION

KLW AUG 20 1998

Type of Facility: PRIVATE AUTOMOTIVE SERVICE STATION Number of Tanks: 1

Site Contact: FRANK MALEWITZ Site Phone Number: (517) 764-0700
Owner's Representative: Representative's Phone:

OWNERSHIP OF TANKS	LOCATION OF TANKS
Owner Name: GLYNN TROLZ & ASSOCIATES IN Address: 3460 ANN ARBOR RD JACKSON, MI 49202	Name: GLYNN TROLZ & ASSOCIATES INC Address: 14950 HORNING DR BROOKLYN, MI 49230 County: JACKSON

THE UST SYSTEM(S) AT THIS FACILITY WERE INSPECTED USING THE MICHIGAN UNDERGROUND STORAGE TANK RULES AND APPLICABLE SECTIONS OF THE 1992 MICHIGAN FLAMMABLE AND COMBUSTIBLE LIQUID RULES. THE FOLLOWING VIOLATIONS, IF ANY, WERE NOTED. THE SITE CONTACT PERSON WAS VERBALLY ADVISED OF THE VIOLATIONS AT THE TIME OF INSPECTION.

1. TANK(S) SHALL BE REGISTERED WITHIN 30 DAYS OF OWNERSHIP OF THE TANK OR BEFORE A NEW TANK IS PLACED INTO SERVICE AND FEES PAID.
   UST 280.22(A)
   SPECIAL ATTENTION: TANK FOUND ON YOUR PROPERTY MUST BE REGISTERED.
2. UST SYSTEMS THAT DO NOT MEET NEW OR UPGRADED STANDARDS MAY USE MONTHLY INVENTORY CONTROL AND ANNUAL TANK TIGHTNESS TESTING UNTIL DECEMBER 22, 1998, WHEN THE TANK MUST BE UPGRADED OR PERMANENTLY CLOSED.
   SECTION 280.41(A)(2)

<<< End of Cited Violations >>>

RECEIVED
98 AUG 12 PM 1:26
DEPT OF ENVIRONMENTAL QUALITY
UST DIVISION

Inspection Status: FACILITY TEMPORARILY APPROVED

Date of Inspection: 08/05/98 Date Compliance is Required: 09/05/98

Signature: Dallas Eberth
DALLAS EBERTH

AUTHORITY: 1994 PA 451 and/or 1941 PA 207 COMPLIANCE: Required PENALTY: Misdemeanor, Civil Penalties, and/or Red Tagging the System.	JACKSON DISTRICT OFFICE 301 E LOUIS GLICK HIGHWAY JACKSON, MI 49201 Phone: (517) 780-7497 Fax: (517) 780-7855

EQP3816e

UNDERGROUND STORAGE TANK DIVISION DEQ
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
P O BOX 30157
LANSING MI 48909-7657

REGISTRATION FOR UNDERGROUND STORAGE TANKS

This information is required under "1994 PA 451." Any owner who knowingly fails to notify or submits false information shall be subject to a misdemeanor and/or civil penalties not to exceed $5,000 per day for each tank for which notification is not given or for which false information is submitted.

SMK AUG 0 5 1999

INSTRUCTIONS: COMPLETE THIS FORM AND SEND TO THE DEQ, UST DIVISION, AT THE ABOVE ADDRESS. NEW TANKS ARE NOT CONSIDERED REGISTERED UNTIL THE DEQ, UST DIVISION HAS RECEIVED YOUR COMPLETED FORM AND A CHECK OR MONEY ORDER MADE PAYABLE TO THE "STATE OF MICHIGAN". THE ANNUAL REGISTRATION FEE FOR EACH TANK REGISTERED WITH THE DEQ, UST DIVISION IS $100.

TYPE OF NOTIFICATION: ☒ NEW REGISTRATION ☐ AMENDED INFO

one NO. OF TANKS AT FACILITY

____ NO. OF CONTINUATION SHEETS ATTACHED

FACILITY NUMBER (if known): 0-012122

I. OWNERSHIP OF TANKS

IF THIS IS A NEW OWNER'S ADDRESS, PLEASE CHECK ☐

OWNER NAME (Corporation/Individual, etc.): Glynn Trolz & Associates, Inc.

MAILING ADDRESS: P. O. Box 249

CITY: Jackson | STATE: MI | ZIP: 49204

COUNTY: Jackson | TOWNSHIP: Leoni

TELEPHONE (Including Area Code): (517) 764-0700

[redacted] SECURITY NUMBER

II. LOCATION OF TANKS

IF INFORMATION SAME AS SECTION I, PLEASE CHECK ☐

FACILITY NAME OR SITE IDENTIFIER: Glynn Trolz & Associates, Inc.

STREET ADDRESS (P.O. Box Not Acceptable): 14950 Horning Road

CITY: Brooklyn | STATE: MI | ZIP: 49230

COUNTY: Jackson | TOWNSHIP CO: Norvell

TELEPHONE (Including Area Code): (517) 764-0700

III. TYPE OF OWNER

☐ FEDERAL GOVERNMENT ☐ COMMERCIAL
☐ STATE GOVERNMENT ☒ PRIVATE
☐ LOCAL GOVERNMENT

IV. INDIAN LANDS

☐ TANKS ARE LOCATED ON LAND WITHIN AN INDIAN RESERVATION OR ON OTHER INDIAN TRUST LANDS.
☐ TANKS ARE OWNED BY NATIVE AMERICAN NATION, TRIBE, OR INDIVIDUAL TRIBE OR NATION:

V. TYPE OF FACILITY

☐ GAS STATION	☐ LOCAL GOVERNMENT	☐ CONTRACTOR
☐ PETROLEUM DISTRIBUTOR	☐ STATE GOVERNMENT	☐ TRUCKING/TRANSPORT
☐ AIR TAXI (AIRLINE)	☐ FEDERAL/NON-MILITARY	☐ UTILITIES
☐ AIRCRAFT OWNER	☐ FEDERAL-MILITARY	☐ RESIDENTIAL
☐ AUTO DEALERSHIP	☐ COMMERCIAL	☒ FARM
☐ RAILROAD	☐ INDUSTRIAL	☐ OTHER (Explain)

PAID 7/30/98 $100.00

VI. CONTACT PERSON FOR LOCATION

NAME: Susan Bull | JOB TITLE: | TELEPHONE (Including Area Code): (517) 764-0700

VII. FINANCIAL RESPONSIBILITY

I HAVE MET THE FINANCIAL RESPONSBILITY REQUIREMENTS AS REQUIRED IN THE UST RULES ☐ (Check All Items Below That Apply)

☒ SELF INSURANCE	☐ GUARANTEE	
☐ COMMERCIAL INSURANCE	☐ SURETY BOND	☐ TRUST FUND
☐ RISK RETENTION GROUP	☐ LETTER OF CREDIT	☐ OTHER METHOD ALLOWED

VIII. CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS, AND THAT BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THAT THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE.

NAME AND OFFICIAL TITLE OF OWNER OR OWNERS' AUTHORIZED REPRESENTATIVE	SIGNATURE	DATE
Gary G. Trolz, President	Gary G. Trolz	7/28/98

EQP-3821 (Rev. 11/95)

IX. DESCRIPTION OF UNDERGROUND STORAGE TANKS (Complete For Each Tank At This Location)								
TANK IDENTIFICATION NUMBER	# 2	#	#	#	#	#	#	#
1. STATUS OF TANKS (Check One)								
CURRENTLY IN USE	☒	☐	☐	☐	☐	☐	☐	☐
TEMPORARILY OUT OF USE**	☐	☐	☐	☐	☐	☐	☐	☐
AMENDMENT OF INFORMATION	☐	☐	☐	☐	☐	☐	☐	☐
**Also Complete Section X								
(If tanks are removed/closed, complete page 3, Section X)								
2. DATE OF INSTALLATION	4/88							
3. ESTIMATED TOTAL CAPACITY (Gallons)	7200							
4. MATERIAL OF CONSTRUCTION (Mark All That Apply)								
ASPHALT COATED OR BARE STEEL	☐	☐	☐	☐	☐	☐	☐	☐
CATHODICALLY PROTECTED STEEL	☐	☐	☐	☐	☐	☐	☐	☐
EPOXY COATED STEEL	☐	☐	☐	☐	☐	☐	☐	☐
COMPOSITE (Steel With Fiberglass)	☐	☐	☐	☐	☐	☐	☐	☐
FIBERGLASS REINFORCED PLASTIC	☒	☐	☐	☐	☐	☐	☐	☐
LINED INTERIOR	☐	☐	☐	☐	☐	☐	☐	☐
DOUBLE WALLED	☐	☐	☐	☐	☐	☐	☐	☐
POLYETHYLENE TANK JACKET	☐	☐	☐	☐	☐	☐	☐	☐
CONCRETE	☐	☐	☐	☐	☐	☐	☐	☐
EXCAVATION LINER	☐	☐	☐	☐	☐	☐	☐	☐
UNKNOWN	☐	☐	☐	☐	☐	☐	☐	☐
OTHER (Please specify)								
HAS TANK BEEN REPAIRED?	☐	☐	☐	☐	☐	☐	☐	☐
5. PIPING MATERIAL (Mark All That Apply)								
BARE STEEL	☐	☐	☐	☐	☐	☐	☐	☐
GALVANIZED STEEL	☒	☐	☐	☐	☐	☐	☐	☐
FIBERGLASS REINFORCED STEEL	☐	☐	☐	☐	☐	☐	☐	☐
COPPER	☐	☐	☐	☐	☐	☐	☐	☐
CATHODICALLY PROTECTED	☐	☐	☐	☐	☐	☐	☐	☐
DOUBLE WALLED	☐	☐	☐	☐	☐	☐	☐	☐
SECONDARY CONTAINMENT	☐	☐	☐	☐	☐	☐	☐	☐
UNKNOWN	☐	☐	☐	☐	☐	☐	☐	☐
OTHER (Please specify)								
5. PIPING (Typing) (Mark All That Apply)								
SUCTION: NO VALVE AT TANK	☒	☐	☐	☐	☐	☐	☐	☐
SUCTION: VALVE AT TANK	☐	☐	☐	☐	☐	☐	☐	☐
PRESSURE (Remote)	☐	☐	☐	☐	☐	☐	☐	☐
PRESSURE (Gravity Fed)	☐	☐	☐	☐	☐	☐	☐	☐
HAS PIPING BEEN REPAIRED?	☐	☐	☐	☐	☐	☐	☐	☐
5. SUBSTANCE CURRENTLY OR LAST STORED IN GREATEST QUANTITY BY VOLUME								
GASOLINE	☒	☐	☐	☐	☐	☐	☐	☐
DIESEL	☐	☐	☐	☐	☐	☐	☐	☐
GASOHOL	☐	☐	☐	☐	☐	☐	☐	☐
KEROSENE	☐	☐	☐	☐	☐	☐	☐	☐
(Not For Consumptive Use On Premises) FUEL OIL	☐	☐	☐	☐	☐	☐	☐	☐
USED OIL	☐	☐	☐	☐	☐	☐	☐	☐
OTHER (Please specify)								
HAZARDOUS SUBSTANCE COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION & LIABILITY ACT (CERCLA) NAME AND/OR CHEMICAL ABSTRACT SERVICE (CAS) NUMBER	☐	☐	☐	☐	☐	☐	☐	☐

UNDERGROUND STORAGE TANK
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
P O BOX 30157
LANSING MI 48909-7657

DEQ

SMK MAY 13 1998

REGISTRATION FOR UNDERGROUND STORAGE TANKS

This information is required under "1994 PA 451." Any owner who knowingly fails to notify or submits false information shall be subject to a misdemeanor and/or civil penalties not to exceed $5,000 per day for each tank for which notification is not given or for which false information is submitted.

INSTRUCTIONS: COMPLETE THIS FORM AND SEND TO THE DEQ, UST DIVISION, AT THE ABOVE ADDRESS. NEW TANKS ARE NOT CONSIDERED REGISTERED UNTIL THE DEQ, UST DIVISION HAS RECEIVED YOUR COMPLETED FORM AND A CHECK OR MONEY ORDER MADE PAYABLE TO THE "STATE OF MICHIGAN". THE ANNUAL REGISTRATION FEE FOR EACH TANK REGISTERED WITH THE DEQ, UST DIVISION IS $100.

TYPE OF NOTIFICATION: ☐ NEW REGISTRATION X AMENDED INFO

FACILITY NUMBER (if known): 0-012122

1 NO. OF TANKS AT FACILITY

NO. OF CONTINUATION SHEETS ATTACHED

I. OWNERSHIP OF TANKS

IF THIS IS A NEW OWNER'S ADDRESS, PLEASE CHECK ☐

OWNER NAME (Corporation/Individual, etc.): Glynn Trolz & Associates, Inc.

MAILING ADDRESS: 3460 Ann Arbor Rd.

CITY: Jackson | STATE: MI | ZIP: 49202

COUNTY: Jackson | TOWNSHIP:

TELEPHONE (Including Area Code): (517) 764-0700

TAX PAYER ID OR SOCIAL SECURITY NUMBER:

II. LOCATION OF TANKS

IF INFORMATION SAME AS SECTION I, PLEASE CHECK ☐

FACILITY NAME OR SITE IDENTIFIER: Glynn Trolz & Associates, Inc.

STREET ADDRESS (P.O. Box Not Acceptable): 14950 Horning Rd.

CITY: Brooklyn, | STATE: MI | ZIP: 49230

COUNTY: Jackson | TOWNSHIP: Norvel

TELEPHONE (Including Area Code): ( ) -

III. TYPE OF OWNER

☐ FEDERAL GOVERNMENT
☐ STATE GOVERNMENT
☐ LOCAL GOVERNMENT
x COMMERCIAL
☐ PRIVATE

IV. INDIAN LANDS

☐ TANKS ARE LOCATED ON LAND WITHIN AN INDIAN RESERVATION OR ON OTHER INDIAN TRUST LANDS.
☐ TANKS ARE OWNED BY NATIVE AMERICAN NATION, TRIBE, OR INDIVIDUAL. TRIBE OR NATION:

V. TYPE OF FACILITY

☐ GAS STATION	☐ LOCAL GOVERNMENT	☐ CONTRACTOR
☐ PETROLEUM DISTRIBUTOR	☐ STATE GOVERNMENT	☐ TRUCKING/TRANSPORT
☐ AIR TAXI (AIRLINE)	☐ FEDERAL/NON-MILITARY	☐ UTILITIES
☐ AIRCRAFT OWNER	☐ FEDERAL-MILITARY	☐ RESIDENTIAL
☐ AUTO DEALERSHIP	☐ COMMERCIAL	x FARM
☐ RAILROAD	☐ INDUSTRIAL	☐ OTHER (Explain)

VI. CONTACT PERSON FOR LOCATION

NAME	JOB TITLE	TELEPHONE (Including Area Code)
Frank Malewitz		(517) 764-0700

VII. FINANCIAL RESPONSIBILITY

I HAVE MET THE FINANCIAL RESPONSBILITY REQUIREMENTS AS REQUIRED IN THE UST RULES ☐ (Check All Items Below That Apply)

☐ SELF INSURANCE	☐ GUARANTEE	
☐ COMMERCIAL INSURANCE	☐ SURETY BOND	☐ TRUST FUND
☐ RISK RETENTION GROUP	☐ LETTER OF CREDIT	☐ OTHER METHOD ALLOWED

VIII. CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS, AND THAT BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THAT THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE.

NAME AND OFFICIAL TITLE OF OWNER OR OWNERS' AUTHORIZED REPRESENTATIVE	SIGNATURE	DATE
Rena M. Pomaville	Rena M. Pomaville	4/15/98

EQP-3821 (Rev. 11/95)

IX. DESCRIPTION OF UNDERGROUND STORAGE TANKS (Complete For Each Tank At This Location)								
TANK IDENTIFICATION NUMBER	#1	#	#	#	#	#	#	#
1. STATUS OF TANKS (Check One)								
CURRENTLY IN USE	☐	☐	☐	☐	☐	☐	☐	☐
TEMPORARILY OUT OF USE**	☐	☐	☐	☐	☐	☐	☐	☐
AMENDMENT OF INFORMATION	X	☐	☐	☐	☐	☐	☐	☐
***Also Complete Section X*								
(If tanks are removed/closed, complete page 3, Section X)								
2. DATE OF INSTALLATION								
3. ESTIMATED TOTAL CAPACITY (Gallons)	3,000							
4. MATERIAL OF CONSTRUCTION (Mark All That Apply)								
ASPHALT COATED OR BARE STEEL	X	☐	☐	☐	☐	☐	☐	☐
CATHODICALLY PROTECTED STEEL	☐	☐	☐	☐	☐	☐	☐	☐
EPOXY COATED STEEL	☐	☐	☐	☐	☐	☐	☐	☐
COMPOSITE (Steel With Fiberglass)	☐	☐	☐	☐	☐	☐	☐	☐
FIBERGLASS REINFORCED PLASTIC	☐	☐	☐	☐	☐	☐	☐	☐
LINED INTERIOR	☐	☐	☐	☐	☐	☐	☐	☐
DOUBLE WALLED	☐	☐	☐	☐	☐	☐	☐	☐
POLYETHYLENE TANK JACKET	☐	☐	☐	☐	☐	☐	☐	☐
CONCRETE	☐	☐	☐	☐	☐	☐	☐	☐
EXCAVATION LINER	☐	☐	☐	☐	☐	☐	☐	☐
UNKNOWN	☐	☐	☐	☐	☐	☐	☐	☐
OTHER (Please specify)								
HAS TANK BEEN REPAIRED?	☐	☐	☐	☐	☐	☐	☐	☐
5. PIPING MATERIAL (Mark All That Apply)								
BARE STEEL	☐	☐	☐	☐	☐	☐	☐	☐
GALVANIZED STEEL	X	☐	☐	☐	☐	☐	☐	☐
FIBERGLASS REINFORCED STEEL	☐	☐	☐	☐	☐	☐	☐	☐
COPPER	☐	☐	☐	☐	☐	☐	☐	☐
CATHODICALLY PROTECTED	☐	☐	☐	☐	☐	☐	☐	☐
DOUBLE WALLED	☐	☐	☐	☐	☐	☐	☐	☐
SECONDARY CONTAINMENT	☐	☐	☐	☐	☐	☐	☐	☐
UNKNOWN	☐	☐	☐	☐	☐	☐	☐	☐
OTHER (Please specify)								
5. PIPING (Typing) (Mark All That Apply)								
SUCTION: NO VALVE AT TANK	☐	☐	☐	☐	☐	☐	☐	☐
SUCTION: VALVE AT TANK	☐	☐	☐	☐	☐	☐	☐	☐
PRESSURE (Remote)	☐	☐	☐	☐	☐	☐	☐	☐
PRESSURE (Gravity Fed)	☐	☐	☐	☐	☐	☐	☐	☐
HAS PIPING BEEN REPAIRED?	☐	☐	☐	☐	☐	☐	☐	☐
5. SUBSTANCE CURRENTLY OR LAST STORED IN GREATEST QUANTITY BY VOLUME								
GASOLINE	☐	☐	☐	☐	☐	☐	☐	☐
DIESEL	X	☐	☐	☐	☐	☐	☐	☐
GASOHOL	☐	☐	☐	☐	☐	☐	☐	☐
KEROSENE	☐	☐	☐	☐	☐	☐	☐	☐
(Not For Consumptive Use On Premises) FUEL OIL	☐	☐	☐	☐	☐	☐	☐	☐
USED OIL	☐	☐	☐	☐	☐	☐	☐	☐
OTHER (Please specify)								
HAZARDOUS SUBSTANCE COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION & LIABILITY ACT (CERCLA) NAME AND/OR CHEMICAL ABSTRACT SERVICE (CAS) NUMBER	☐	☐	☐	☐	☐	☐	☐	☐

X. TANKS OUT OF USE OR CHANGE IN SERVICE

TANK IDENTIFICATION NUMBER	#1	#	#	#	#	#	#	#
1. CLOSING OF TANK A. ESTIMATED DATE LAST USED (Month/Day/Year)								
B. ESTIMATED DATE TANK REMOVED/ CLOSED IN PLACE (Month/Day/Year)	2/9/98							
C. TANK WAS REMOVED FROM GROUND	X	☐	☐	☐	☐	☐	☐	☐
D. TANK FILLED WITH INERT MATERIAL (Sand, Concrete, etc.) DESCRIBE TYPE OF FILL USED AND REASON TANK WAS NOT REMOVED	☐	☐	☐	☐	☐	☐	☐	☐

REMINDER: A SITE ASSESSMENT MUST BE COMPLETED, UNLESS YOU REPORT A CONFIRMED RELEASE

XI. CERTIFICATION OF COMPLIANCE (Complete For All New And Upgraded Tanks At This Location)

1. INSTALLATION A. INSTALLER CERTIFIED BY TANK AND PIPING MANUFACTURERS	☐		☐		☐		☐		☐		☐		☐		☐	
B. INSTALLER CERTIFIED OR LICENSED BY THE UST DIVISION	☐		☐		☐		☐		☐		☐		☐		☐	
C. INSTALLATION INSPECTED BY A REGISTERED ENGINEER	☐		☐		☐		☐		☐		☐		☐		☐	
D. INSTALLATION INSPECTED AND APPROVED BY UST DIVISION	☐		☐		☐		☐		☐		☐		☐		☐	
E. ANOTHER METHOD ALLOWED BY UST DIVISION (Please Specify)																
2. RELEASE DETECTION	TANK	PIPE	TANK	PIPE	TANK	PIPE	TANK	PIPE	TANK	PIPE	TANK	PIPE	TANK	PIPE	TANK	PIPE
A. MANUAL (Static) TANK GAUGING	☐	☐	☐		☐		☐		☐		☐		☐		☐	
B. TANK TIGHTNESS TESTING	☐	☐	☐		☐		☐		☐		☐		☐		☐	
C. INVENTORY CONTROL	☐		☐		☐		☐		☐		☐		☐		☐	
D. AUTOMATIC TANK GAUGING	☐	☐	☐		☐		☐		☐		☐		☐		☐	
E. VAPOR MONITORING	☐		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
F. GROUNDWATER MONITORING	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
G. INTERSTITIAL MONITORING DOUBLE WALLED TANK/PIPING	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
H. INTERSTITIAL MONITORING SECONDARY CONTAINMENT	☐		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
I. AUTOMATIC LINE LEAK DETECTORS	☐		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
J. LINE TIGHTNESS TESTING	☐		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
K. OTHER METHOD ALLOWED BY UST DIVISION (Specify)																
3. SPILL AND OVERFILL PROTECTION A. OVERFILL DEVICE INSTALLED	☐		☐		☐		☐		☐		☐		☐		☐	
B. SPILL DEVICE INSTALLED	☐		☐		☐		☐		☐		☐		☐		☐	
4. HAVE YOU INSTALLED IMPRESSED CURRENT CATHODIC PROTECTION? A. YES	☐		☐		☐		☐		☐		☐		☐		☐	
B. NO	☐		☐		☐		☐		☐		☐		☐		☐	

PLEDGE: I CERTIFY THE INFORMATION CONCERNING INSTALLATION THAT IS PROVIDED IN SECTION XI IS TRUE TO THE BEST OF MY BELIEF AND KNOWLEDGE.

INSTALLER:

NAME PRINTED SIGNATURE DATE

POSITION COMPANY

EQP-3821 (Rev. 11/95)

Facility No: 0-012122 Comp No: 020998

Page 01 of 01

Department of Environmental Quality
Underground Storage Tank Division

INSPECTION REPORT

Type of Inspection Performed: CLOSURE INSPECTION

RECEIVED FEB 18 1998

Type of Facility: PRIVATE AUTOMOTIVE SERVICE STATION Number of Tanks: 1

Site Contact: GLYNN TROLZ Site Phone Number: (734) 428-8168
Owner's Representative: Representative's Phone:

OWNERSHIP OF TANKS	LOCATION OF TANKS
Owner Name: GLYNN TROLZ & ASSOCIATES IN Address: 3460 ANN ARBOR RD PO BOX 249 JACKSON, MI 49202	Name: GLYNN TROLZ & ASSOCIATES INC. Address: 14950 HORNING DR BROOKLYN, MI 49230 County: JACKSON

THE UST SYSTEM(S) AT THIS FACILITY WERE INSPECTED USING THE MICHIGAN UNDERGROUND STORAGE TANK RULES AND APPLICABLE SECTIONS OF THE 1992 MICHIGAN FLAMMABLE AND COMBUSTIBLE LIQUID RULES. THE FOLLOWING VIOLATIONS, IF ANY, WERE NOTED. THE SITE CONTACT PERSON WAS VERBALLY ADVISED OF THE VIOLATIONS AT THE TIME OF INSPECTION.

NO VIOLATIONS CITED

COMMENTS: OWNER/OPERATOR IS REQUIRED TO SUBMIT AMENDED REGISTRATION FOR CLOSURE AND SITE ASSESSMENT OR CONFIRMED RELEASE.

Inspection Status: CORRESPONDENCE

Date of Inspection: 02/09/98 Date Compliance is Required: 03/09/98

Signature: Dallas Eberth
DALLAS EBERTH

AUTHORITY: 1994 PA 451 and/or 1941 PA 207 COMPLIANCE: Required PENALTY: Misdemeanor, Civil Penalties, and/or Red Tagging the System.	JACKSON DISTRICT OFFICE 301 E LOUIS GLICK HIGHWAY JACKSON, MI 49201 Phone: (517) 780-7497 Fax: (517) 780-7855

PR3816E

DEQ MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY - UNDERGROUND STORAGE TANK DIVISION

UST CLOSURE INSPECTION CHECKLIST

INSTRUCTIONS: The Hazardous Materials Storage Inspector (HMSI) will complete this checklist and attach it to an inspection report to be retained in the Headquarters file. An Environmental Quality Analyst (EQA) or Geologist will complete this checklist if they are at a tank closure in lieu of an HMSI. If a release is reported, make a copy for the LUST District file. All boxes should be completed, inserting "NA" if not applicable.

Facility/Site Name:	Contact Person:	Phone No:
TROLL FARM	GLENN TROLL	
Facility Address:	**City:**	**Facility ID#:**
14950 HOMER		0-012122
O/O Name:	**O/O Address:**	**Phone No:**
Tank Identification: (per registration)	**Product Identification**	
	DIESEL	
☐ Photos Taken ☐ Site Sketch Attached	**Date(s) of activity:**	2-9-98

PRE-CLOSURE

	YES	NO	COMMENTS/TANK ID
30-Day Notification submitted	X		
Removal Contractor	HAWKINS EQUIPMENT Co. 335-9285		
Certificate of Insurance	X		

TANK REMOVAL

	YES	NO	COMMENTS/TANK ID
Tank(s) Emptied (Date/Amount)	X		
Tank(s) Purged (Method)	X		AIR
Piping Removed	X		
Piping Cleaned and Capped			

EXCAVATION ASSESSMENT

	YES	NO	COMMENTS/TANK ID
Holes Present in Tank		X	
Leaks in Piping (Location)		X	
Stained Soils Noted(Location)		X	
Leaks Under Dispenser(s)(Location)		X	
Odors Noted in Soils(Location)		X	
Water Present in Excavation		X	(approx. depth to groundwater)
Sheen or Free Product Observed		X	
Overfills At Fill Pipe(s) Noted		X	
*Samples Collected (by whom)			RENA PONAVILLE
Environmental Consultant			INSIGHT

TANK ABANDONMENT IN PLACE

	YES	NO	COMMENTS/TANK ID
Tank Threatens Structure			
Tank Not Accessible			
Tank Cleaned/Purged			
Fill Material (Identify)			
*Samples Collected (by whom)			

COMMENTS (Note additional comments on back)

USTD Representative (HMSI/EQA/Geologist) _____ (signature) DATE: 2-9-98

*site assessment samples pursuant to Rule 55, section 280.72 of the Michigan Underground Storage Tank Rules (MUSTR)
The information on this checklist only reflects what was observed during the time period the USTD representative was on site. It is not representative of site conditions, etc. during the full period of UST closure.

Facility No: 0-012122 Comp No: 031098

Department of Environmental Quality
Underground Storage Tank Division

KLW MAR 12 1998

INSPECTION REPORT

Type of Inspection Performed: RECORDS INVESTIGATION

Type of Facility: PRIVATE AUTOMOTIVE SERVICE STATION Number of Tanks: 0

Site Contact: GLYNN TROLZ Site Phone Number: (734) 428-8168
Owner's Representative: Representative's Phone:

OWNERSHIP OF TANKS	LOCATION OF TANKS
Owner Name: GLYNN TROLZ & ASSOCIATES IN Address: 3460 ANN ARBOR RD PO BOX 249 JACKSON, MI 49202	Name: GLYNN TROLZ & ASSOCIATES INC. Address: 14950 HORNING DR BROOKLYN, MI 49230 County: JACKSON

THE UST SYSTEM(S) AT THIS FACILITY WERE INSPECTED USING THE MICHIGAN UNDERGROUND STORAGE TANK RULES AND APPLICABLE SECTIONS OF THE 1992 MICHIGAN FLAMMABLE AND COMBUSTIBLE LIQUID RULES. THE FOLLOWING VIOLATIONS, IF ANY, WERE NOTED. THE SITE CONTACT PERSON WAS VERBALLY ADVISED OF THE VIOLATIONS AT THE TIME OF INSPECTION.

1. REGISTRATION SHALL BE SUBMITTED WITHIN 30 DAYS OF TANK OR OWNER STATUS CHANGE.
   UST 280.22(A)
   SPECIAL ATTENTION: FILE AMENDED REGISTRATION FOR CLOSURE, BILLING WILL CONTINUE UNTILL THIS IS COMPLETED.

<<< End of Cited Violations >>>

COMMENTS:

RECEIVED
98 MAR 12 PM 1:27
DEPT OF ENVIRONMENTAL QUALITY
UST DIVISION

Inspection Status: CORRESPONDENCE

Date of Inspection: 03/10/98 Date Compliance is Required: 04/10/98

Signature: Dallas Eberth
DALLAS EBERTH

AUTHORITY: 1994 PA 451 and/or 1941 PA 207 COMPLIANCE: Required PENALTY: Misdemeanor, Civil Penalties, and/or Red Tagging the System.	JACKSON DISTRICT OFFICE 301 E LOUIS GLICK HIGHWAY JACKSON, MI 49201 Phone: (517) 780-7497 Fax: (517) 780-7855

PR3816E

DEQ MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
UNDERGROUND STORAGE TANK DIVISION

FACILITY NUMBER (see invoice) 0-0012122 12122

USTD USE ONLY	
UPGRADE/CANCEL DATE	INCIDENT NUMBER C-119-98
ENTRY DATE LH FEB 17 1998	

RELEASE REPORT: ☐ SUSPECTED X CONFIRMED

THIS INFORMATION IS REQUIRED UNDER 1994 PA 451, AS AMENDED (Act 451). FAILURE TO COMPLY WITH THE PROVISIONS OF THIS ACT MAY RESULT IN A MISDEMEANOR AND/OR CIVIL PENALTIES NOT TO EXCEED $5000 PER DAY, PER TANK.

INSTRUCTIONS: The owner, operator, or consultant must report suspected and confirmed release reports to the Underground Storage Tank Division (USTD) within 24 hours of discovery. Phone 1-800-MICHUST or FAX this form to 517-335-2245. All information on this form must be provided regardless of whether the release is reported by telephone or FAX. If you have any questions, please contact the USTD at 517-373-8168.

PERSON REPORTING RELEASE	COMPANY (IF NOT OWNER/OPERATOR)	AREA CODE & TELEPHONE NUMBER
Rene Pomaville	Insight Environmental Services, Inc.	810 225 8271

I. OWNERSHIP OF TANKS

☐ PLEASE CHECK IF NEW ADDRESS

NAME OF OWNER (CORPORATION/INDIVIDUAL, ETC.)
Glynn Trolz & Associates, Inc. Glynn Trolz + Assoc

STREET ADDRESS
3460 Ann Arbor Road 3460 Ann Arbor

CITY Jackson STATE MI ZIP CODE 49202
Jackson MI 49202

AREA CODE & TELEPHONE NUMBER
(517)784 0700

II. LOCATION OF TANKS

☐ PLEASE CHECK IF SAME AS SECTION I

FACILITY NAME OR COMPANY SITE IDENTIFIER
Glynn Trolz & Associates, Inc.

STREET ADDRESS (P O Box Not Acceptable)
14950 Horning Road

CITY Brooklyn STATE MI ZIP CODE 49230

COUNTY Jackson TOWNSHIP Norvel

CONTACT PERSON FOR LOCATION: Frank Malewitz
AREA CODE & TELEPHONE NUMBER: 517 784 0700

DATE RELEASE DISCOVERED: 2/16/98

TIME RELEASE DISCOVERED: 4:47 pm

SIZE OF TANK (Gallons)	SUBSTANCE RELEASED	CONSTRUCTION OF TANK	REASON FOR BELIEVING RELEASE OCCURRED (e.g. presence of product, failed tightness test, vapors, stains)
3,000	diesel	steel	Positive laboratory results

COMMENTS:
Regulated UST is also in an excavation with an unregulated UST which may have contained gasoline or diesel. Closure under Part 213 will be submitted for excavation with two USTs.

USTD USE ONLY

DATE/TIME REPORTED 2/16/98 18:26 ☐ AM ☐ PM

☐ PHONE ☒ FAX ☐ VOICE MAIL

DISTRIBUTION ORIGINAL: USTD, FACILITY FILE
COPY: OWNER

USTD SIGNATURE

EQP 3628 (10/95)

STATE OF MICHIGAN

JOHN ENGLER, Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

"Better Service for a Better Environment"

HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973

INTERNET: www.deq.state.mi.us

RUSSELL J. HARDING, Director

REPLY TO:

UNDERGROUND STORAGE TANK DIVISION
TOWN CENTER
PO BOX 30157
LANSING MI 48909-7657

February 17, 1998

CERTIFIED MAIL

Dear Owner/Operator:

SUBJECT:
Facility ID No. 0-012122, Confirmed Release No. C-119-98
GLYNN TROLZ & ASSOCIATES INC., 14950 HORNING DR, BROOKLYN, MI

On 02-16-98, the Department of Environmental Quality (DEQ), Underground Storage Tank Division (USTD), was notified of a release of a regulated substance from an underground storage tank (UST) system at the above location. Attached is a copy of the confirmed release report. As the owner or operator of this facility with a reported release, you are responsible for hiring a qualified underground storage tank consultant to conduct all appropriate corrective actions at this location, including submission of reports by the deadlines set forth in Part 213, Leaking Underground Storage Tanks, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. If you do not agree that you are responsible for conducting corrective actions at this facility, you may submit supporting documentation to the USTD JACKSON DISTRICT OFFICE within 30 days from receipt of this letter that demonstrates that you were not responsible for the release. Attached is informational memo IM-8, revised January 8, 1997, which provides general information on liability.

Please refer to Part 213 and the attached flow chart to help guide you through the requirements. USTD approval is needed for any institutional controls that are a part of the cleanup program. The USTD may audit or oversee all aspects of corrective actions undertaken pursuant to Part 213. You are required to contact our district office at least 48 hours prior to conducting on-site activities, using the attached form.

The USTD requires the use of forms to assist in the reporting requirements. The required forms are available from the district office. A LUST report cover sheet should be submitted with each report. In addition, you are required to notify the USTD of any changes to your UST system using a registration form.

Be advised that pursuant to Section 21313a and 21323 of Part 213, the owner or operator may be subject to penalties for not preparing and submitting the reports outlined in Part 213. In addition Section 21324 of Part 213 provides that a person who submits or causes to be submitted false or misleading information may be found guilty of fraud.

Please include the Facility ID No. found under "Subject" at the top of this notification with each submittal and on any future correspondence. Should you have questions regarding this letter, or need additional information, please contact the USTD JACKSON DISTRICT OFFICE at (517) 780-7900.

Sincerely,

Terri Harmon
Enforcement Unit

Enclosures
cc: JACKSON DISTRICT OFFICE

SD42 VER 2.0 STATE OF MICHIGAN PRODUCTION REGION (PMAIN) 03/04/98 11:23 AM
LINK TO: PROJECT NUMBER PROFILE PROD
NOTE: N

AGENCY: 761 (MUST BE IN D02 AGENCY PROFILE)
PROJECT NUMBER: U00105
TITLE: USTD-GLYNN TROLZ & ASSOCIATES 0-012122
DESC: JACKSON/JACKSON
PROJ TYPE: 8 (MUST BE IN D06 PROJECT TYPE)
PROJ GROUP: 001 (MUST BE IN D60 PROJECT GROUP)
PROJ PH BUDGET LEVEL IND: Y (Y OR N - CONTROL BUDGETS AT PHASE LEVEL)
AGY BUD PROJECT LEVEL IND: 0 (0=NO PROJECT, 1=PROJECT, 2=PROJECT/PHASE)
PROJECT CATEGORY: FISCAL YEAR END:
PROJECT MANAGER:
PHONE NO:
REPORT DATES:
AUDIT COMP DATE: AUDIT IND: N
PART FUND AND %: 0001 100.000

STATUS CODE: A
EFF START DATE: 09301994 EFF END DATE: LAST PROC DATE: 03041998
Z01 RECORD SUCCESSFULLY ADDED

F1-HELP F3-DEL F5-NEXT F9-INT F10-SAVE F11-SAVE/CLEAR ENTER-INQ CLEAR-EXIT

Facility No: 0-012122 Comp No: 120597

Department of Environmental Quality
Underground Storage Tank Division

RECEIVED DEC 11 1997

INSPECTION REPORT

Type of Inspection Performed: RECORDS INVESTIGATION

Type of Facility: PRIVATE AUTOMOTIVE SERVICE STATION Number of Tanks: 1

Site Contact:
Owner's Representative: SUSAN BULL

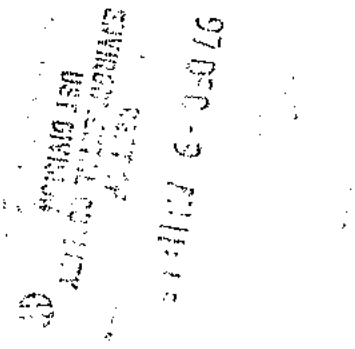
Site Phone Number:
Representative's Phone: (313) 428-8168

OWNERSHIP OF TANKS	LOCATION OF TANKS
Owner Name: GLYNN TROLZ & ASSOCIATES IN Address: 3460 ANN ARBOR RD PO BOX 249 JACKSON, MI 49202	Name: GLYNN TROLZ & ASSOCIATES INC. Address: 14950 HORNING DR BROOKLYN, MI 49230 County: JACKSON

THE UST SYSTEM(S) AT THIS FACILITY WERE INSPECTED USING THE MICHIGAN UNDERGROUND STORAGE TANK RULES AND APPLICABLE SECTIONS OF THE 1992 MICHIGAN FLAMMABLE AND COMBUSTIBLE LIQUID RULES. THE FOLLOWING VIOLATIONS, IF ANY, WERE NOTED. THE SITE CONTACT PERSON WAS VERBALLY ADVISED OF THE VIOLATIONS AT THE TIME OF INSPECTION.

NO VIOLATIONS CITED

COMMENTS: YOUR INTENT TO REMOVE UNDERGOUND STORAGE TANK HAS BEEN RECEIVED BY THIS OFFICE. PLEASE NOTIFY ME WHEN YOU HAVE A DATE SCHEDULED FOR REMOVAL.



Inspection Status: CORRESPONDENCE

Date of Inspection: 12/05/97 Date Compliance is Required: 06/18/98

Signature: Dallas Eberth
DALLAS EBERTH

AUTHORITY: 1994 PA 451 and/or 1941 PA 207 COMPLIANCE: Required PENALTY: Misdemeanor, Civil Penalties, and/or Red Tagging the System.	JACKSON DISTRICT OFFICE 301 E LOUIS GLICK HIGHWAY JACKSON, MI 49201 Phone: (517) 780-7497 Fax: (517) 780-7855

DEQ MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
UNDERGROUND STORAGE TANK DIVISION

FACILITY NUMBER (see invoice)
0-012122

INTENT OF REMOVAL, CLOSURE OR CHANGE-IN-SERVICE OF UNDERGROUND STORAGE TANKS

This information is required under the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), Part 211. Any owner/operator who fails to notify is subject to a misdemeanor and civil penalties, not to exceed $5,000 per day for each tank.

INSTRUCTIONS: NOTICES WILL ONLY BE ACCEPTED ON THIS FORM. YOUR UST MUST BE REGISTERED PRIOR TO SUBMITTAL OF THIS FORM. Please type or print clearly. ALL information must be completed. See reverse side for additional information. If you have questions, call (517) 373-8168, Monday through Friday between 8:00 am - 5:00 pm

I. OWNERSHIP OF TANKS	II. LOCATION OF TANKS
☐ PLEASE CHECK IF NEW OWNER'S ADDRESS	☐ PLEASE CHECK IF SAME AS SECTION I
NAME OF OWNER (CORPORATION, INDIVIDUAL, ETC.) GLYNN TROLZ + ASSOCIATES	FACILITY NAME OR COMPANY SITE IDENTIFIER GLYNN TROLZ + ASSOCIATES
STREET ADDRESS 3460 ANN ARBOR RD. PO BOX 249	STREET ADDRESS (P O Box Not Acceptable) 14950 HORNING DR.
CITY / STATE / ZIP CODE JACKSON / MI. / 49202	CITY / STATE / ZIP CODE BROOKLYN / MI. / 49230
COUNTY / TOWNSHIP JACKSON	COUNTY / TOWNSHIP JACKSON
AREA CODE & TELEPHONE NUMBER (517) 764 0700	CONTACT PERSON FOR LOCATION SUSAN BULL AREA CODE & TELEPHONE NUMBER (313) 428 8168

TANK INFORMATION

TANK NUMBER AS INDICATED ON UST INVOICE	PRODUCT LAST STORED IN TANK	SIZE OF TANK (GALLONS)	INDICATE ACTION TO BE TAKEN REMOVAL, CHANGE-IN-SERVICE, CLOSE IN PLACE
1	DIESEL	3000	REMOVAL

Comments:

RECEIVED
NOV 18 97
9:45 AM
AQD
WASHTENAW COUNTY
PUBLIC HEALTH
ENVIRONMENTAL HEALTH DIVISION

Notification Submitted by (Print Name)	Company	
GARY BEEBE	HAWKINS EQUIP. CO.	
Signature	**Date**	**Area Code & Telephone Number**
	11-12-97	248 335 9285

THIS IS NOT A REGISTRATION FORM. AN AMENDED REGISTRATION FORM, EQP3821, MUST BE FILED TO REMOVE THE LISTED TANKS FROM THE BILLING CYCLE

USTD USE ONLY

USTD APPROVAL NOTICE

Approval is given to perform the indicated activity at the above facility location. Action indicated above may commence on or after: 12-18-97

Expiration Date: 6-18-97. If action is not taken by the expiration date, you must submit another notification.

Authorizing Signature	Date
	11-19-97

Mail To: DEPARTMENT OF ENVIRONMENTAL QUALITY UNDERGROUND STORAGE TANK DIVISION P O BOX 30157 LANSING, MI 48909-7657	Date Confirmation Mailed to Owner	Entry Date
	KLW NOV 19 1997	

Distribution: Original: USTD Facility File
Copy: Owner

EQP3824 (3/98)

INSTRUCTIONS

REPORTING REQUIREMENTS

An underground storage tank (UST) subject to Part 211 of Act 451 must be registered by the current owner and have all fees paid to be considered registered with the Underground Storage Tank Division (USTD). The UST owner/operator or agent must complete this form as instructed. The copies returned by the USTD will indicate the earliest closure date along with the last date this form is valid.

A site assessment shall be conducted during the closure/change-in-service, with results sent to the USTD along with the form provided. The owner/operator must also submit an amended registration form notifying the USTD of completion of closure/change-in-service within 30 days after the date of the closure/change-in-service.

INSURANCE REQUIREMENTS

Pursuant to Section 21107 of Act 451, Part 211, a person who removes USTs shall maintain pollution liability insurance of not less than $1,000,000 per occurrence.

CONFIRMED RELEASE

A confirmed release must be reported to the USTD within 24 hours. A confirmed release waives the requirements of submitting this form, waiting 30 days, and conducting a site assessment. Once reported, the owner/operator will be informed regarding rules for further testing and clean up activities. Releases may be reported by fax to 517/335-2245 or called in to 1-800-MICHUST.

CLOSURE OF TANKS

Tanks shall be emptied of all liquid and accumulated sludge and purged of all vapors. Piping shall be emptied of all liquid and sludge, purged and capped, or removed from the ground. *Permanent closure* requires **removal** of the UST from the ground, unless it can be documented that removal of the UST would cause damage to a permanent structure. The tank can be closed-in-place after the 30 day waiting period provided that the required documentation is placed in the owner's file. If closure in place is necessary, the tank must be emptied of liquid, sludge and vapors and filled 100% with inert solid material (sand, fly-ash concrete or pea gravel). Piping shall be closed as indicated above. A site assessment is still required if tanks are closed-in-place.

CHANGE-IN-SERVICE

A change-in-service is defined as going from the storage of a regulated substance to an unregulated substance. The tank must be cleaned and purged as stated above, and a site assessment must be performed prior to the introduction of the unregulated substance.

NOTIFICATION

It is recommended that the Hazardous Materials Storage Inspector at the USTD district office be notified 7 days prior to the work being performed.

If you have questions regarding the above instructions, please contact the USTD at (517) 373-8168 or the USTD District Office.

Michigan State Police
Fire Marshal Division
Hazardous Materials Section
3705 W. Jolly Rd.
P.O. Box 30157
Lansing, MI 48909
(517) 334-7079

****
* INVOICE *
****

May 9, 1991

ANNUAL-UST REGISTRATION FEE FOR BILLING CYCLE ENDING 12-31-91

TO:	LOCATION ADDRESS:
GLYNN TROLZ & ASSOCIATES INC.	MAIN FARM
3460 ANN ARBOR ROAD	14950 HORNING ROAD
JACKSON, MI 49202	BROOKLYN, MI 49230
RE: MAIN FARM	

Annual renewal of tanks on record as of 4/17/91. Required by P.A. 423 of 1984, as amended. Failure to pay may subject you to the following penalty: misdemeanor, punishable by imprisonment and/or fines; civil penalties and may also make you ineligible for access to MUSTFA funds. Please see enclosed letter for an explanation. FM-20 (4/91)

Facility #	Tank #	Description	Cost
0-012122	1	3,000 Gal - Diesel	$100.00

MICHIGAN STATE POLICE
RECEIVED
MAY 30 1991
FIRE MARSHAL DIVISION
HAZARDOUS MATERIALS SECTION

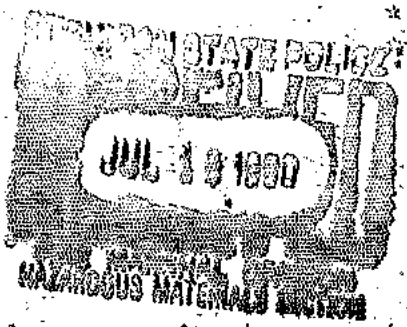
Number of Eligible Tanks: 1
Total Number of Tanks: 1

Registration Fee: $ 100.00
Late Fee:
Amount Received:
Amount Due: $ 100.00

Make Checks Payable to: State of Michigan
Payment Due on or Before: JUNE 15, 1991

Michigan State Police
Fire Marshal Division
Hazardous Materials Section
3705 W. Jolly Rd.
P.O. Box 30157
Lansing, MI 48909
(800) 642-4878

****
* INVOICE *
****



June Page 1 of 1

Fee for Underground Storage Tank registrations received on or before 3-31-90.

TO:	PLEASE RETURN TO:
GLYNN TROLZ & ASSOCIATES INC.	Michigan State Police
3460 ANN ARBOR ROAD	Fire Marshal Division
JACKSON, MI 49202	Harzardous Materials Section
RE: MAIN FARM	3705 W. Jolly Rd.
	P.O. Box 30157
	Lansing, MI 48909

If there are no changes that need to be made on the registration form, timely payment and return of this invoice will suffice as your FY 1990 (10-1-89 to 9-30-90) annual renewal of your USTs, as required under P.A. 423 of 1984, as amended. Payment due July 30, 1990. For more details, see the enclosed information.

Facility #	Tank #	Description	Cost
0-012122	1	3,000 Gal - Diesel	$100.00

PAID

Number of Eligible Tanks: 1
Total Number of Tanks: 1

Registration Fee: $ 100.00
Late Fee:
Amount Received:
Amount Due: $ 100.00

Make Checks Payable to: State of Michigan
Payment Due on or Before: JULY 30, 1990

Notification for Underground Storage Tanks

FORM APPROVED
OMB NO. 2050-0068
APPROVAL EXPIRES 6-30-88

FOR TANKS IN **MI**

RETURN COMPLETED FORM TO

Ground Water Quality Division
Department of Natural Resources
Box 30157
Lansing, MI 48909

RECEIVED
MAY 08 1986
GOD-COMPLIANCE

I.D. Number **012122**

STATE USE ONLY

Date Received

GENERAL INFORMATION

Notification is required by Federal law for all underground tanks that have been used to store regulated substances since January 1, 1974, that are in the ground as of May 8, 1986, or that are brought into use after May 8, 1986. The information requested is required by Section 9002 of the Resource Conservation and Recovery Act, (RCRA), as amended.

The primary purpose of this notification program is to locate and evaluate underground tanks that store or have stored petroleum or hazardous substances. It is expected that the information you provide will be based on reasonably available records, or, in the absence of such records, your knowledge, belief, or recollection.

Who Must Notify? Section 9002 of RCRA, as amended, requires that, unless exempted, owners of underground tanks that store regulated substances must notify designated State or local agencies of the existence of their tanks. Owner means—
(a) in the case of an underground storage tank in use on November 8, 1984, or brought into use after that date, any person who owns an underground storage tank used for the storage, use, or dispensing of regulated substances, and
(b) in the case of any underground storage tank in use before November 8, 1984, but no longer in use on that date, any person who owned such tank immediately before the discontinuation of its use.

What Tanks Are Included? Underground storage tank is defined as any one or combination of tanks that (1) is used to contain an accumulation of "regulated substances," and (2) whose volume (including connected underground piping) is 10% or more beneath the ground. Some examples are underground tanks storing: 1. gasoline, used oil, or diesel fuel, and 2. industrial solvents, pesticides, herbicides or fumigants.

What Tanks Are Excluded? Tanks removed from the ground are not subject to notification. Other tanks excluded from notification are:
1. farm or residential tanks of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes;
2. tanks used for storing heating oil for consumptive use on the premises where stored;
3. septic tanks;
4. pipeline facilities (including gathering lines) regulated under the Natural Gas Pipeline Safety Act of 1968, or the Hazardous Liquid Pipeline Safety Act of 1979, or which is an intrastate pipeline facility regulated under State laws;
5. surface impoundments, pits, ponds, or lagoons;
6. storm water or waste water collection systems;
7. flow-through process tanks;
8. liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;
9. storage tanks situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

What Substances Are Covered? The notification requirements apply to underground storage tanks that contain regulated substances. This includes any substance defined as hazardous in section 101 (14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), with the exception of those substances regulated as hazardous waste under Subtitle C of RCRA. It also includes petroleum, e.g., crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

Where To Notify? Completed notification forms should be sent to the address given at the top of this page.

When To Notify? 1. Owners of underground storage tanks in use or that have been taken out of operation after January 1, 1974, but still in the ground, must notify by May 8, 1986. 2. Owners who bring underground storage tanks into use after May 8, 1986, must notify within 30 days of bringing the tanks into use.

Penalties: Any owner who knowingly fails to notify or submits false information shall be subject to a civil penalty not to exceed $10,000 for each tank for which notification is not given or for which false information is submitted.

INSTRUCTIONS

Please type or print in ink all items except "signature" in Section V. This form must by completed for each location containing underground storage tanks. If more than 5 tanks are owned at this location, photocopy the reverse side, and staple continuation sheets to this form.

Indicate number of continuation sheets attached: ____

I. OWNERSHIP OF TANK(S)

Owner Name (Corporation, Individual, Public Agency, or Other Entity)
Glynn Trolz & Associates, Inc.

Street Address
3460 Ann Arbor Road

County
Jackson

City: Jackson | State: MI | ZIP Code: 49202

Area Code: (517) | Phone Number: 764-0700

Type of Owner (Mark all that apply ☒)

- ☒ Current
- ☐ Former
- ☐ State or Local Gov't
- ☐ Federal Gov't (GSA facility I.D. no. _____)
- ☐ Private or Corporate
- ☐ Ownership uncertain

II. LOCATION OF TANK(S)

(If same as Section I, mark box here ☐)

Facility Name or Company Site Identifier, as applicable
Main Farm

Street Address or State Road, as applicable
14950 Horning Road

County
Jackson

City (nearest): Brooklyn | State: MI | ZIP Code: 49230

Indicate number of tanks at this location: 1

Mark box here if tank(s) are located on land within an Indian reservation or on other Indian trust lands ☐

III. CONTACT PERSON AT TANK LOCATION

Name (If same as Section I, mark box here ☐): Frank G. Malewitz
Job Title: Corporate Controller
Area Code: (517) | Phone Number: 764-0700

IV. TYPE OF NOTIFICATION

☐ Mark box here only if this is an amended or subsequent notification for this location.

V. CERTIFICATION (Read and sign after completing Section VI.)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Name and official title of owner or owner's authorized representative: Frank G. Malewitz, Corporate Controller
Signature: Frank G Malewitz
Date Signed: 5/7/86

CONTINUE ON REVERSE SIDE

012122

Owner Name (from Section I) G. Trolz & Assoc., Inc Location (from Section II) Main Farm Page No. ____ of ____ Pages

VI. DESCRIPTION OF UNDERGROUND STORAGE TANKS (Complete for each tank at this location.)

Tank Identification No. (e.g., ABC-123), or Arbitrarily Assigned Sequential Number (e.g., 1,2,3...)	Tank No. 1	Tank No.	Tank No.	Tank No.	Tank No.
1. Status of Tank (Mark all that apply ☒)					
Currently in Use	X				
Temporarily Out of Use					
Permanently Out of Use					
Brought into Use after 5/8/86					
2. Estimated Age (Years)	8				
3. Estimated Total Capacity (Gallons)	3000				
4. Material of Construction (Mark one ☒)					
Steel	X				
Concrete					
Fiberglass Reinforced Plastic					
Unknown					
Other, Please Specify					
5. Internal Protection (Mark all that apply ☒)					
Cathodic Protection					
Interior Lining (e.g., epoxy resins)					
None	X				
Unknown					
Other, Please Specify					
6. External Protection (Mark all that apply ☒)					
Cathodic Protection					
Painted (e.g., asphaltic)					
Fiberglass Reinforced Plastic Coated					
None	X				
Unknown					
Other, Please Specify					
7. Piping (Mark all that apply ☒)					
Bare Steel					
Galvanized Steel	X				
Fiberglass Reinforced Plastic					
Cathodically Protected					
Unknown					
Other, Please Specify					
8. Substance Currently or Last Stored in Greatest Quantity by Volume (Mark all that apply ☒)					
a. Empty					
b. Petroleum					
Diesel	X				
Kerosene					
Gasoline (including alcohol blends)					
Used Oil					
Other, Please Specify					
c. Hazardous Substance					
Please Indicate Name of Principal CERCLA Substance					
OR					
Chemical Abstract Service (CAS) No.					
Mark box ☒ if tank stores a mixture of substances					
d. Unknown					
9. Additional Information (for tanks permanently taken out of service)					
a. Estimated date last used (mo/yr)	/	/	/	/	/
b. Estimated quantity of substance remaining (gal.)					
c. Mark box ☒ if tank was filled with inert material (e.g., sand, concrete)					

STATE OF MICHIGAN

JOHN ENGLER, GOVERNOR

DEPARTMENT OF STATE POLICE

COL. MICHAEL D. ROBINSON, DIRECTOR

HM 025-92

FIRE MARSHAL DIVISION
GENERAL OFFICE BUILDING
7150 HARRIS DRIVE
LANSING, MICHIGAN 48913
PHONE: 517 322-1924

GLYNN TROLZ & ASSOCIATES INC.
3460 ANN ARBOR ROAD
PO BOX 249
JACKSON, MI 49202

Facility #:0-012122*921

TX:(517) 764-0700 FRANK MALEWITZ
FACILITY NO: 0-012122
MAIN FARM CO:JACKSON
14950 HORNING ROAD
BROOKLYN, MI 49230
REC'D: 03-18-92 REM: 04-17-92

Dear UST Owner/Operator:

We have received your notice of intent to permanently close/remove an underground storage tank (UST) system on or after the above closure/removal (REM) date. This approval notice is valid for a six month period, beginning on the closure/removal date indicated.

If your UST is not currently registered (see facility ID# above) with the Fire Marshal Division, you MUST submit a completed registration form with a $100 per tank fee prior to closure/removal. If or when your UST is properly registered with the Fire Marshal Division, you MUST submit an amended copy of the Michigan UST Registration Form AFTER the system has been properly closed/removed. This will ensure that your tank(s) are removed from the active UST database.

The Michigan Underground Storage Tank rules require that a site assessment be performed to determine if contamination has occurred. Site assessment records MUST be maintained for three (3) years, with a copy forwarded to the Enforcement unit. A site assessment is not required if you report a confirmed release to our office.

The UST must be removed from the ground. Closure in place by cleaning and filling 100% with a solid inert material (sand, concrete, gravel) is only permitted if the UST is located under a building or permanent structure, and removal would cause damage to that structure. It is the responsibility of the owner/operator to make this determination, to document it, and to retain this pertinent information. These requirements do not apply to UST's storing heating oil for consumptive use on the premises. However, the Fire Marshal Division recommends that all UST's that are permanently closed be removed from the ground.

Sincerely,

Capt. Wade E. Schaefer
State Fire Marshal

David T. Smith

D/Lt. David T. Smith, Commander
Enforcement Unit

DTS:pw
1/92

Glynn Trolz
AND ASSOCIATES, INC.

PHONE 517 - 764-0700
FAX 517 - 764-5180

OIL AND GAS PRODUCERS

3460 ANN ARBOR RD. P. O. BOX 249 JACKSON, MICHIGAN 49204

March 18, 1992

Michigan State Police
Fire Marshall Division
ATTN: Pam

Dear Pam

Please accept this letter as the 30-day notice prior to removal of the underground storage tank described below:

Tank I.D. #0-012122-#1
Facility Name: Main Farm
14950 Horning Rd.
Brooklyn, MI 49230

It is my understanding that your acknowledgement will start the 30-day waiting period prior to removal.

Very truly yours,

GLYNN TROLZ & ASSOCIATES, INC.

Frank G. Malewitz

FGM/slb

original received
3/18/92 - incomplete
Refaxed - but used
3/18/92 as
Receipt date
3/23/92

MAR 23 1992

Department of Licensing and Regulatory Affairs, Bureau of Fire Services, Storage Tank Division
P.O. Box 30033 Lansing, MI 48909
Phone 517-335-7211, Fax 517-332-1428

INTENT OF REMOVAL, CLOSURE OR CHANGE-IN-SERVICE OF UNDERGROUND STORAGE TANKS

This information is required pursuant to Part 211, Underground Storage Tank Regulations, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. An owner/operator who fails to notify is subject to a misdemeanor and/or civil penalties, not to exceed $5,000 per day for each tank.

RECEIVED
MAR 16 2015
BUREAU OF FIRE SERVICES

INSTRUCTIONS: NOTICES WILL ONLY BE ACCEPTED ON THIS FORM. THE UST MUST BE REGISTERED PRIOR TO SUBMITTAL OF THIS FORM. Please type or print clearly. ALL information must be completed. See page 2 for additional information. If you have questions contact 517-335-7279 or fax to 517-332-1428.

HMSI: Craig Galbreath	IOC# ~~12122~~ 2015-0038
Fee Balance: 0	FACILITY NUMBER (see invoice) 12122
I. OWNERSHIP OF TANKS	II. LOCATION OF TANKS
☐ PLEASE CHECK IF NEW OWNER'S ADDRESS	☐ PLEASE CHECK IF SAME AS SECTION I
NAME OF OWNER (CORPORATION, INDIVIDUAL, ETC.): GT RANCH, LLC	FACILITY NAME OR COMPANY SITE IDENTIFIER: GT RANCH LLC
STREET ADDRESS: PO BOX 249	STREET ADDRESS (P.O. Box Not Acceptable): 14950 HORNING RD.
CITY: JACKSON STATE: MI ZIP CODE: 49204	CITY: BROOKLYN STATE: MI ZIP CODE: 49230
COUNTY: JACKSON TOWNSHIP:	COUNTY: JACKSON TOWNSHIP:
AREA CODE & TELEPHONE NUMBER: ( ) 517-764-0700	CONTACT PERSON FOR LOCATION: GARY TREEZ AREA CODE & TELEPHONE NUMBER: ( ) Same

TANK INFORMATION

TANK NUMBER AS INDICATED ON UST INVOICE	PRODUCT LAST STORED IN TANK	SIZE OF TANK (GALLONS)	PIPING TO BE REMOVED YES NO	INDICATE ACTION TO BE TAKEN REMOVAL, CHANGE-IN-SERVICE, CLOSE IN PLACE
C 2	Gasoline	7,200	Y	REMOVAL

Comments:

Notification Submitted by (Print Name): Dan Messerly	Company: R.W. Mercer Co	
Signature: Dan Messerly	Date: 3-9-15	Area Code & Telephone Number: (517-787-2960

THIS IS NOT A REGISTRATION FORM. AN AMENDED TANK REGISTRATION FORM, BFS-3821, AND A COMPLETED SITE ASSESSMENT (Form BFS-3881) MUST BE FILED WITH THE BUREAU OF FIRE SERVICES, STORAGE TANK DIVISION, TO REMOVE THE LISTED TANKS FROM THE BILLING CYCLE.

Bureau of Fires Services (BFS) Use Only

BFS APPROVAL NOTICE

Approval is given to perform the indicated activity at the above facility location. Action indicated above may commence on or after 9/16/15

Expiration Date: 9/16/15 If action is not taken by the expiration date, you must submit another notification.

Authorizing Signature: James C Lucas		Date: 3/20/15	
Mail to: LARA - BFS Storage Tank Division P.O. Box 30033 Lansing, MI 48909	Overnight Mail to: LARA – BFS Storage Tank Division 3101 Technology Boulevard, Suite H Lansing, MI 48910	Date Confirmation Mailed to Owner: 3/20/15	Entry Date: 3/20/15

BFS-3824 (Rev. 4/13)

LARA
LICENSING AND REGULATORY AFFAIRS
CUSTOMER DRIVEN. BUSINESS MINDED

STATE OF MICHIGAN

LICENSING AND REGULATORY AFFAIRS
BUREAU OF FIRE SERVICES STORAGE TANK DIVISION

FACILITY INSPECTION REPORT

Owner Name & Address:

GT Ranch LLC
PO Box 249
Jackson, MI 49204-0249

Location of Tanks:

GT Ranch LLC
14950 Horning Rd
Brooklyn, MI 49230-9545
County - Jackson
Facility ID - 00012122

ATTENTION: Gary

A Closure Inspection was conducted on April 14, 2015, for the above-referenced facility for compliance with Part 211, Underground Storage Tank Regulations, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the Michigan Underground Storage Tank Rules (MUSTR), 2008 AACS R 29.2101 et seq.; and the applicable sections of the rules for the Storage and Handling of Flammable and Combustible Liquids, 2014 AACS R 29.5601 et seq. The inspection showed that there was no action taken by the inspector.

A closure inspection was conducted and the tank identified as (# 2) on the State database, a 8,000 gallon single wall fiberglass tank was removed from the ground along with all associated piping.

Soil sampling was being collected by Gary Blinkiewicz of Superior Environmental in Marshall, MI.

For permanent closure of the tank; within 30 days of tank removal an amended registration shall be sent to Lansing indicating removal,
and within 45 days site assessment soil results are to be submitted to Lansing.

The inspection and violations (if any) were discussed with you at the time of the inspection.

If you have additional questions concerning this matter, please contact me.

Craig Galbreath

4/14/2015

Date

Craig Galbreath
Hazardous Materials Storage Inspector
Region 2
PO Box 30033
Lansing, MI 48909
Phone: (517) 262-2136
Fax: (517) 332-1428
Email: galbreathc@michigan.gov

C-0119-98 2/16/98
T-1, R-N 5/11/98
mailed 6/17/15 mm

Department of Licensing and Regulatory Affairs, Bureau of Fire Services, Storage Tank Division
P.O. Box 30033, Lansing, MI 48909
Phone 517-335-7211, Fax 517-332-1428

UNDERGROUND STORAGE TANK SYSTEM SITE ASSESSMENT REPORT AND CLOSURE OR CHANGE-IN-SERVICE REGISTRATION FORM

This information is required under Part 211, Underground Storage Tank Regulations, of the Natural Resources and Environmental Protection Act, Act 451 of the Public Acts of 1994, as amended (Act 451) being Sections 324.21101 to 324.21113 of the Michigan Compiled Laws Annotated. Any owner who knowingly fails to notify or submits false information shall be subject to a misdemeanor and/or civil penalties not to exceed $5000 per violation.

INSTRUCTIONS: For permanent closure and change-in-service, complete all the information on this form and submit with the site assessment analytical results, chain-of-custody which indicates temperature and method of preservation, and site sketch which indicates the location and depths of tanks, piping, and samples. This form must be received within 45 days of the samples being taken. The owner is required to keep a copy of the site assessment report for a minimum of three years. See page 2 of this form for additional information.

FACILITY ID NUMBER: 00012122

I. OWNERSHIP OF TANKS

NAME OF OWNER (CORPORATION, INDIVIDUAL, ETC.)	GT Ranch LLC
STREET ADDRESS	PO Box 249
CITY	Jackson
STATE	MI
ZIP CODE	49204
AREA CODE & TELEPHONE NUMBER	517-764-0700

II. LOCATION OF TANKS

FACILITY NAME OR COMPANY SITE IDENTIFIER	GT Ranch LLC
STREET ADDRESS (P.O. BOX NOT ACCEPTABLE)	14950 Horning Road
CITY	Brooklyn
STATE	MI
ZIP CODE	49230
CONTACT PERSON FOR LOCATION	Mr. Gary Trolz
AREA CODE & TELEPHONE NUMBER	517-764-0700

20150044

III. TANK INFORMATION

TANK NUMBER	2				
TANK SIZE	7,200 Gallons				
SUBSTANCE STORED	Gasoline				
DATE LAST USED	March 13, 2015				
DATE CLOSED	April 14, 2015				
REMOVED FROM GROUND	Yes				
CLOSED IN PLACE (INDICATE TYPE OF FILL)					
CHANGE-IN-SERVICE					

RECEIVED
JUN 04 2015
BUREAU OF FIRE SERVICES

OWNER'S NAME	OWNER'S SIGNATURE	DATE
Mr. Gary Trolz	Gary T. Trolz	5-22-15

IV. SUBMITTER INFORMATION

SUBMITTED BY (COMPANY NAME)	NAME (INDIVIDUAL)
Superior Environmental Corp	Gary T. Blinkiewicz

SIGNATURE	DATE	AREA CODE & TELEPHONE NUMBER
Gary T. Blinkiewicz	05/18/15	269-558-0240

DO NOT WRITE BELOW THIS LINE (FOR BFS OFFICE USE ONLY)

SITE ASSESSMENT REVIEW REPORT

The Storage Tank Division staff has reviewed your site assessment and the following determination has been made:

- [x] The contamination concentration is below the threshold detection levels, and there is no evidence of a confirmed release. Tank only
- [ ] The test methodology or level of detection is faulty. The data submitted is not considered valid. Please perform another site assessment and forward a copy of the results to this office within 45 days.
- [ ] The number of sampling points analyzed are considered inadequate to make a determination of the cleanliness of the site. Please perform another site assessment and forward a copy of the results to this office within 45 days.
- [ ] The contaminant concentrations are greater than the threshold detection levels and there is evidence of a confirmed release. A confirmed release report is being generated. Follow reporting requirements in accordance with 451 PA 1994, Part 213, as amended.
- [ ] The soils excavated and removed from the site were greater than allowable volumes. A confirmed release was not reported to this office within 24 hours per the Michigan Underground Storage Tank Rules (MUSTR) prior to excavation of contaminated soil. A confirmed release report is being generated. Follow reporting requirements in accordance with Part 213 of Act 451.

SIGNATURE OF REVIEWER	DATE OF REVIEW
Marcia Polson	June 9, 2015

MAIL TO: Department of Licensing and Regulatory Affairs, BFS, Storage Tank Division, P.O. Box 30033, Lansing, MI 48909
OVERNIGHT MAIL TO: Department of Licensing and Regulatory Affairs, BFS, Storage Tank Division, 3101 Technology Blvd, Suite H, Lansing, MI 48910

BFS-3881 (Rev 4/13)

Department of Licensing and Regulatory Affairs, Bureau of Fire Services, Storage Tank Division
P.O. Box 30033, Lansing, MI 48909
Phone 517-335-7211, Fax 517-332-1428

INSTRUCTIONS FOR FORM EQP3881 SITE ASSESSMENT PROCEDURES

The Michigan Underground Storage Tank Rules (MUSTR), 1999 AACS R 29.2101 et seq., require a site assessment when an underground storage tank (UST) or associated piping is removed, closed in place (when permitted), or undergoes a change-in-service. If you report a confirmed release, this site assessment report is not required. Samples must be taken by personnel qualified in the sampling and preservation protocols using generally accepted sampling procedures. For most owners and operators, an environmental consultant will be needed to perform this assessment. To locate a qualified person in your area, look in the Yellow Pages under Engineers: environmental or geotechnical. The following is a guide for performing a site assessment as required in the MUSTR. The section numbers below refer to the MUSTR sections.

TANK SAMPLE LOCATIONS--Section 280.72(d).

Two soil borings shall be taken as close as practical to the tank, but not more than 5 feet from the tank. One boring shall be taken at each end of the tank, but not more than 2 feet below the bottom of the tank and boring shall be taken at the bottom of each end of the tank; OR

One discrete sample shall be taken from the excavation floor underneath the fill pipe area for each tank removed and one discrete sample shall be taken from the excavation floor underneath the opposite end of the tank. One water sample shall be taken if the entire floor of the excavation is covered with water. If the excavation is partially covered with water, take one water sample and one soil sample.

PIPING AND DISPENSER SAMPLE LOCATIONS--Section 280.72(f).

A site assessment for piping shall be performed after emptying and purging the piping run or after the removal of piping. The site assessment shall consist of one discrete sample for every 30 feet of the underground piping run, starting at the dispenser location or the furthest point from the tank and moving towards the tank.

SAMPLE ANALYSES--Section 280.72(g).

Samples shall be analyzed using an appropriate method listed in the United States Environmental Protection Agency standard entitled "Test Methods for Evaluating Solid Waste"; Physical/Chemical Methods, "SW-846" document or other method approved by the Remediation Division. Note the following:

- Gasoline, JP4, and jet B shall be tested for BTEX (benzene, toluene, ethylbenzene, and xylenes). Methods include, but are not limited to: 8021 and 8260.
- Diesel, fuel oil, kerosene, virgin motor oil, jet A, and JP5 shall be tested for PNAs (polynuclear aromatic hydrocarbons). Methods include, but are not limited to 8310 and 8270. Chlorinated solvents, ketones, ethers, mineral spirits, stoddard solvents, and naphthas may use Method 8260. Azeotropic distillation or closed-system vacuum distillation introduction may be necessary for certain compounds.
- Waste oils and heavier oils shall use Method 8015 or 8270 for DRO with an appropriate standard based on the analyte. If solvents comprise part of the waste oil, Method 8260 shall also be applied.
- Preservation in accordance with SW-846 Method 5035 shall be utilized for volatile soil samples in conformity with STD Informational Memorandum No. 13.
- Analytical results shall include the method used for the analysis and the chain of custody of the sample(s) with the temperature of the samples when received at the laboratory.

For regulated and hazardous substances not listed above, please contact the Bureau of Fire Services, Storage Tank Division, at 517-335-7211 for guidance in choosing appropriate analytical methods.

REPORTING CONTAMINATION

If you find visible or olfactory evidence of contamination in the UST excavation or along pipe runs, or if your analytical results show contamination, you must report a confirmed release to the Bureau of Fire Services, Storage Tank Division, by telephone to 517-335-7279 or by fax using form BFS-3826 to 517-332-1428 within 24 hours of discovery of the contamination. If you report a confirmed release, this site assessment report is not required.

"Visible evidence" means presence of a product sheen on water or stained soils. "Olfactory evidence" means the smell of product odors in soils or water within the tank or pipe excavation. Positive indication from field monitoring equipment such as H-Nu meters, organic vapor analyzers, or combustible gas detectors constitutes a suspected release. However, you must report a confirmed release anytime you believe one has occurred.

After confirmation of a release, the liable owner/operator has obligations pursuant to Part 213, Leaking Underground Storage Tanks, of the 1994 PA 451 (Act 451), as amended, for initial response actions, site investigations and cleanup (corrective action). For corrective action activities you must use a Qualified Underground Storage Tank Consultant defined in Part 213 of Act 451.

Sample Location

Approximate Property Boundary

0 feet 60

Adapted from SEC field notes; not a legal survey.

FIGURE 1

UST SAMPLING LOCATIONS

GT RANCH LLC
14950 HORNING ROAD
SECTION 13 T.4S., R.2E.,
NORVELL TOWNSHIP,
JACKSON COUNTY, MICHIGAN

scale	as shown	date drawn	5/18/15
project mgr.	GTB	drawn by	DAL
dwg #	BC3773-CA	revised	

Superior
ENVIRONMENTAL CORP

ALS Environmental

28-Apr-2015

Gary Blinkiewicz
Superior Environmental Corp.
317 S. Grand Street
Marshall, MI 49068

Re: **GT Ranch LLC (BC3773.00)** Work Order: **1504828**

Dear Gary,

ALS Environmental received 3 samples on 15-Apr-2015 09:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 12.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Chad Whelton

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager

NELAP ACCREDITED LABORATORY

Certificate No: MN 532786

Report of Laboratory Analysis

ALS Group USA, Corp

Date: 28-Apr-15

Client: Superior Environmental Corp.
Project: GT Ranch LLC (BC3773.00)
Work Order: 1504828

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1504828-01	Trip Blank	Soil		4/14/2015	4/15/2015 09:30	☐
1504828-02	North Floor 1	Soil		4/14/2015 13:30	4/15/2015 09:30	☐
1504828-03	South Floor 1	Soil		4/14/2015 13:40	4/15/2015 09:30	☐

ALS Group USA, Corp

Date: 28-Apr-15

Client: Superior Environmental Corp.
Project: GT Ranch LLC (BC3773.00)
WorkOrder: 1504828

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and PQL, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
% of sample	Percent of Sample
µg/Kg	Micrograms per Kilogram
µg/Kg-dry	Micrograms per Kilogram Dry Weight

ALS Group USA, Corp

Date: *28-Apr-15*

Client:	Superior Environmental Corp.	**Client Sample ID:**	Trip Blank
Work Order:	1504828	**Collection Date:**	4/14/2015
Project:	GT Ranch LLC (BC3773.00)		
Lab ID:	1504828-01	**Matrix:**	SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Prep Date: 4/15/2015		Analyst: AK
Benzene	ND	50	50		µg/Kg	1	4/18/2015
Toluene	ND	100	100		µg/Kg	1	4/18/2015
Ethylbenzene	ND	50	50		µg/Kg	1	4/18/2015
m,p-Xylene	ND	100	100		µg/Kg	1	4/18/2015
o-Xylene	ND	50	50		µg/Kg	1	4/18/2015
Surr: 1,2-Dichloroethene-d4	*100*	*70-130*			*%REC*	1	4/18/2015
Surr: 4-Bromofluorobenzene	*96.6*	*70-130*			*%REC*	1	4/18/2015
Surr: Dibromofluoromethane	*98.2*	*70-130*			*%REC*	1	4/18/2015
Surr: Toluene-d8	*98.7*	*70-130*			*%REC*	1	4/18/2015

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *28-Apr-15*

Client:	Superior Environmental Corp.	**Client Sample ID:**	North Floor 1
Work Order:	1504828	**Collection Date:**	4/14/2015 1:30:00 PM
Project:	GT Ranch LLC (BC3773.00)		
Lab ID:	1504828-02	**Matrix:**	SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep Date: 4/15/2015		Analyst: AK
Benzene	ND	50	50		µg/Kg-dry	1	4/18/2015
Toluene	ND	100	100		µg/Kg-dry	1	4/18/2015
Ethylbenzene	ND	50	50		µg/Kg-dry	1	4/18/2015
m,p-Xylene	ND	100	100		µg/Kg-dry	1	4/18/2015
o-Xylene	ND	50	50		µg/Kg-dry	1	4/18/2015
Surr: 1,2-Dichloroethane-d4	*102*	*70-130*			*%REC*	1	4/18/2015
Surr: 4-Bromofluorobenzene	*95.9*	*70-130*			*%REC*	1	4/18/2015
Surr: Dibromofluoromethane	*97.3*	*70-130*			*%REC*	1	4/18/2015
Surr: Toluene-d8	*100*	*70-130*			*%REC*	1	4/18/2015
MOISTURE			**E160.3M**				Analyst: EVB
Moisture	3.5	0.050	0		% of sample	1	4/24/2015

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *28-Apr-15*

Client:	Superior Environmental Corp.	**Client Sample ID:**	South Floor 1
Work Order:	1504828	**Collection Date:**	4/14/2015 1:40:00 PM
Project:	GT Ranch LLC (BC3773.00)		
Lab ID:	1504828-03	**Matrix:**	SOIL

Analyses	Result	Report Limit	MDEQ OP Memo 2 TDL	Qual	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep Date: **4/15/2015**		Analyst: AK
Benzene	ND	50	50		µg/Kg-dry	1	4/18/2015
Toluene	ND	100	100		µg/Kg-dry	1	4/18/2015
Ethylbenzene	ND	50	50		µg/Kg-dry	1	4/18/2015
m,p-Xylene	ND	100	100		µg/Kg-dry	1	4/18/2015
o-Xylene	ND	50	50		µg/Kg-dry	1	4/18/2015
Surr: 1,2-Dichloroethane-d4	*102*	*70-130*			*%REC*	1	4/18/2015
Surr: 4-Bromofluorobenzene	*98.6*	*70-130*			*%REC*	1	4/18/2015
Surr: Dibromofluoromethane	*99.0*	*70-130*			*%REC*	1	4/18/2015
Surr: Toluene-d8	*101*	*70-130*			*%REC*	1	4/18/2015
MOISTURE			**E160.3M**				Analyst: EVB
Moisture	4.0	0.050	0		% of sample	1	4/24/2015

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 28-Apr-15

Client: Superior Environmental Corp.
Work Order: 1504828
Project: GT Ranch LLC (BC3773.00)

QC BATCH REPORT

Batch ID: 69864 Instrument ID VMS7 Method: SW8260B

MBLK Sample ID: MBLK-69864-69864 Units: µg/Kg Analysis Date: 4/16/2015 01:02 PM
Client ID: Run ID: VMS7_150416A SeqNo: 3229208 Prep Date: 4/15/2015 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	U	30								
Ethylbenzene	U	30								
m,p-Xylene	U	60								
o-Xylene	U	30								
Toluene	U	30								
Surr: 1,2-Dichloroethane-d4	*981.5*	0	*1000*	0	*98.2*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*985.5*	0	*1000*	0	*98.6*	*70-130*	0			
Surr: Dibromofluoromethane	*951*	0	*1000*	0	*95.1*	*70-130*	0			
Surr: Toluene-d8	*983*	0	*1000*	0	*98.3*	*70-130*	0			

LCS Sample ID: LCS-69864-69864 Units: µg/Kg Analysis Date: 4/16/2015 11:23 AM
Client ID: Run ID: VMS7_150416A SeqNo: 3229207 Prep Date: 4/15/2015 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1049	30	1000	0	105	75-125	0			
Ethylbenzene	1046	30	1000	0	105	75-125	0			
m,p-Xylene	2086	60	2000	0	104	80-125	0			
o-Xylene	1028	30	1000	0	103	75-125	0			
Toluene	1036	30	1000	0	104	70-125	0			
Surr: 1,2-Dichloroethane-d4	*982.5*	0	*1000*	0	*98.2*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*995.5*	0	*1000*	0	*99.6*	*70-130*	0			
Surr: Dibromofluoromethane	*999.5*	0	*1000*	0	*100*	*70-130*	0			
Surr: Toluene-d8	*1002*	0	*1000*	0	*100*	*70-130*	0			

MS Sample ID: 1504828-02A MS Units: µg/Kg Analysis Date: 4/20/2015 03:23 AM
Client ID: North Floor 1 Run ID: VMS5_150419A SeqNo: 3232493 Prep Date: 4/15/2015 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	774.4	21	698.3	0	111	75-125	0			
Ethylbenzene	815.6	21	698.3	0	117	75-125	0			
m,p-Xylene	1655	42	1397	0	118	80-125	0			
o-Xylene	804.1	21	698.3	0	115	75-125	0			
Toluene	783.5	21	698.3	0	112	70-125	0			
Surr: 1,2-Dichloroethane-d4	*693.4*	0	*698.3*	0	*99.3*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*723.1*	0	*698.3*	0	*104*	*70-130*	0			
Surr: Dibromofluoromethane	*720.3*	0	*698.3*	0	*103*	*70-130*	0			
Surr: Toluene-d8	*708.8*	0	*698.3*	0	*102*	*70-130*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Superior Environmental Corp.
Work Order: 1504828
Project: GT Ranch LLC (BC3773.00)

QC BATCH REPORT

Batch ID: 69864 Instrument ID VMS7 Method: SW8260B

MSD Sample ID: 1504828-02A MSD Units: µg/Kg Analysis Date: 4/20/2015 03:48 AM
Client ID: North Floor 1 Run ID: VMS5_150419A SeqNo: 3232494 Prep Date: 4/16/2015 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	800.6	21	698.3	0	115	75-125	774.4	3.33	30	
Ethylbenzene	805.5	21	698.3	0	115	75-125	815.6	1.25	30	
m,p-Xylene	1620	42	1397	0	116	80-125	1655	2.13	30	
o-Xylene	781.1	21	698.3	0	112	75-125	804.1	2.91	30	
Toluene	744.4	21	698.3	0	107	70-125	783.5	5.12	30	
Surr: 1,2-Dichloroethane-d4	*688.9*	0	*698.3*	0	*98.6*	*70-130*	693.4	*0.657*	*30*	
Surr: 4-Bromofluorobenzene	*714.4*	0	*698.3*	0	*102*	*70-130*	723.1	*1.21*	*30*	
Surr: Dibromofluoromethane	*721*	0	*698.3*	0	*103*	*70-130*	720.3	*0.0969*	*30*	
Surr: Toluene-d8	*698.7*	0	*698.3*	0	*100*	*70-130*	708.8	*1.44*	*30*	

The following samples were analyzed in this batch: 1504828-01A 1504828-02A 1504828-03A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Superior Environmental Corp.
Work Order: 1504828
Project: GT Ranch LLC (BC3773.00)

QC BATCH REPORT

Batch ID: R162127 **Instrument ID** MOIST **Method:** E160.3M

MBLK	Sample ID: WBLKS-R162127					Units: % of sample		Analysis Date: 4/24/2015 02:04 PM			
Client ID:	Run ID: MOIST_150424A			SeqNo: 3243997		Prep Date:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Moisture	0.03	0.050								J	

LCS	Sample ID: LCS-R162127					Units: % of sample		Analysis Date: 4/24/2015 02:04 PM			
Client ID:	Run ID: MOIST_150424A			SeqNo: 3243994		Prep Date:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Moisture	100	0.050	100	0	100	99.5-100.5	0				

DUP	Sample ID: 15041303-01A DUP					Units: % of sample		Analysis Date: 4/24/2015 02:04 PM			
Client ID:	Run ID: MOIST_150424A			SeqNo: 3243984		Prep Date:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Moisture	12.79	0.050	0	0	0		12.44	2.77	20		

DUP	Sample ID: 1504828-03B DUP					Units: % of sample		Analysis Date: 4/24/2015 02:04 PM			
Client ID: South Floor 1	Run ID: MOIST_150424A			SeqNo: 3243991		Prep Date:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Moisture	4.44	0.050	0	0	0		3.98	10.9	20		

The following samples were analyzed in this batch: 1504828-02B 1504828-03B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Cincinnati, OH +1 513 733 5336 | Fort Collins, CO +1 970 490 1511 | Houston, TX +1 281 530 5656
Everett, WA +1 425 356 2600 | Holland, MI +1 616 399 6070 | Middletown, PA +1 717 944 5541

Chain of Custody Form

Page ___ of ___

COC ID: 120941

ALS Project Manager: ALS

Customer Information		Project Information			Parameter/Me
Purchase Order		Project Name	GT RANCH LLC	A	BTEX
Work Order		Project Number	BC3773.00	B	
Company Name	Superior Environmental Corp.	Bill to Company	SUPERIOR	C	
Send Report to	GARY BLINKIEWICZ	Invoice Attn		D	
Address	317 S. Grand Street	Address	1128 FRANKLIN ST.	E	
				F	
City/State/Zip	Marshall, MI 49068	City/State/Zip	MARNE, MI 49435	G	
Phone	269 929 1983	Phone	616 667-4000	H	
Fax		Fax		I	
e-Mail Address	g.blinkiewicz@superiorenvir	e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	Bottles	A	B	C	D	E
1	TRIP BLANK	04/14/13				2	X				
2	NORTH FLOOR 1	04/14/13	1330	SOIL	METHANOL	3	X				
3	SOUTH FLOOR 1	04/14/13	1340	SOIL	METHANOL	3	X				
4											
5											
6											
7											
8											
9											
10											

Sample(s) Please Print & Sign: Gary Blinkiewicz

Shipment Method:

Required Turnaround Time (Check Box): ☒ Std 10 WK Days ☐ 5 WK Days ☐ Other 2 WK Days ☐

Relinquished by:	Date:	Time:	Received by:	Notes:
[signature]	04/14/13	1700	FEDEX	
Relinquished by: FEDEX	Date: 4/15/13	Time: 0930	Received by (Laboratory):	Cooler ID / Cooler Temp
Logged by (Laboratory): KEW	Date: 4/15/13	Time: 1050	Checked by (Laboratory): [signature]	3.0°C

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

CUSTODY SEAL

Date: 04/14/13 Time: 1750

Name: GARY BLINKIEWICZ

Company: SUPERIOR

Seal Org

Date: 04/1

Fe

7674 0200

1 From

Date 04/14/13

Sender's Name GARY BLINKIEWICZ Phone 269 929 1989

Company SUPERIOR ENVIRONMENTAL

Address 317 GRAND ST.

City MARSHALL State MI ZIP 49068

2 Your Internal Billing Reference

3 To

Recipient's Name ALS ENVIRONMENTAL Phone 616 399 6070

Company CHAD WELDON

Address 3352 128TH AVE.

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City HOLLAND State MI ZIP 49424

HOLD Weekday

HOLD Saturday

4 Express Package Service

Next Business Day

- FedEx First Overnight
- FedEx Priority Overnight
- FedEx Standard Overnight

2 or 3 Business D

- FedEx 2Day A.M.
- FedEx 2Day
- FedEx Express Sa

5 Packaging

- FedEx Envelope*
- FedEx Pak*
- FedEx Box

6 Special Handling and Delivery Signature Options

- SATURDAY Delivery
- No Signature Required
- Direct Signature

Does this shipment contain dangerous goods?

- No
- Yes
- Yes
- Dry Ice

7 Payment

- Sender
- Recipient
- Third Party
- Credit

Total Packages 1 Total Weight 10 lbs.

FedEx

fedex.com 1.800.GoFedEx 1.800.463.3339

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: SUPERIOR - MARSHALL Date/Time Received: 15-Apr-15 09:30

Work Order: 1504828 Received by: KRW

Checklist completed by Keith Warenga (eSignature) 15-Apr-15 (Date) Reviewed by: Chad Wilton (eSignature) 15-Apr-15 (Date)

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.0 C	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	4/15/2015 10:54:56 AM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Department of Licensing and Regulatory Affairs, Bureau of Fire Services, Storage Tank Division
P.O. Box 30033, Lansing, MI 48909
Phone 517-335-7211, Fax 517-332-1428

AUTOMOTIVE SERVICE STATION CHECKLIST

INSTRUCTIONS: The Hazardous Materials Storage Inspector shall complete this checklist and attach it to an inspection report, one to be retained in the Region file and one for the Main Office file. All boxes shall be completed inserting N/A where non-applicable.

FACILITY NAME		FACILITY ID NUMBER
Glynn Trolz Farms		12122
CONTACT PERSON ON SITE	Area Code & Telephone Number	FACILITY TYPE
Gary Trolz		Public / Private X
EMAIL ADDRESS OF RESPONSIBLE PERSON		

OPERATION SECTION

SECTION		CODE	VIO	PASS
6.7	Emergency power disconnect	S93		X
9.2.5.2	Fire extinguisher, 100 feet	S59		X
9.4.5	Dispenser in view and communicate	S92		X
280.93	Financial Responsibility	U92	X	

SECTION		CODE	VIO	PASS
280.22h	Display proof of registration	S63		X
280.22a	Registration submitted 30 days	S62		X
280.22a	Properly registered & fees paid	S61		X
6.2.1	Electric certification	U70		X
	Miscellaneous violation	S50		

A-B-C OPERATOR SECTION

280.13	Have Certified A – B operator	U103	X	
280.13a	Registration submitted for A-B	U106	X	
280.13b	New owners cert. 30 days of purchase	U114		
280.13b	Must have Class B before operating	U114		

280.13d	Class C operator present	U107		
280.13d	Class C trained for conditions	U119		
280.13b	List of all Class C trained Emp.	U112		
280.13c	Quarterly inspections performed	U104	X	
280.13c	Insp. Report Signed by B Operator	U105	x	

RECORDS

280.34	Maintenance records	S65		X
280.44a	Line leak detector tested	U95		na
280.41b	Line tightness test – pressure	U88		na
280.41b	Line test - suction every 3 years	U89		na
6.3.9.1.	Emergency valve tested	S94		nx
280.34	General record keeping violation	S60		

280.34	Release detection records	S67		x
280.31b	C/P tested 6 months & 3 years	U30		na
280.31c	Impressed current, 60 day log	S35		na
280.34	Cathodic protection records*	S64		na
*NOTE-	Includes CP upgrade testing results			

RELEASE DETECTION

280.40	Release detection for tanks	U71		x
280.43a	Inventory control (not stand alone)	S42		x
280.43b	Manual gauging (less then 550)	S43		na
280.43c	Tank tightness testing	S44		x
280.43d	Automatic tank gauging	U72		x

280.43e	Vapor monitoring (approval req.)	U73		na
280.43f	Groundwater monitoring	U74		na
280.43g	Interstitial monitoring (stand alone)	U75		na
280.43h	S.I.R (stand alone)	U93		na
280.43h	Other	S49		

COMMENTS Said he is thinking about pulling the tank due to requirements.

Department of Licensing and Regulatory Affairs, Bureau of Fire Services, Storage Tank Division
P.O. Box 30033, Lansing, MI 48909
Phone 517-335-7211, Fax 517-332-1428

AUTOMOTIVE SERVICE STATION CHECKLIST

FACILITY NAME Glynn Trolz Farm **FACILITY ID NUMBER** 12122

DISPENSER SECTION

SECTION		CODE	VIO	PASS
6.1	Dispenser violation	S10		x
6.2.3.	Dispenser location (10 feet)	S11		x
6.3.4.	Dispenser protected; damage/secured	S13		x
6.5.1.	Dispenser hose 18 feet or less	S14		x
6.6.6.	Splash guard on nozzle	S91		x
9.2.5.4.	No smoking, stop motor, container	S22		x
9.2.5.4.	Remain out of vehicle in view	S23		x

SECTION		CODE	VIO	PASS
6.5.2.	Breakaway on hose	S15		x
6.3.4.1.	Containment under dispenser	S17		na
6.3.9.	Emergency valve installed	S18		x
6.1.1.	Automatic self-closing nozzle	S19		x
9.4.4.	Operating instructions posted	S25		x
6.3.3.	Operates only with handle removed	S12		x
6.3.5.	Class I Disp. 20 feet from fuel oil	none		na

UNDERGROUND TANK SECTION

280.20	Tank miscellaneous violation	S30		x
280.20c	Spill containment - Testing request	U51		x
280.20c	Spill containment - Inoperative	U101		x
2.3.3.4.3.	Tight fitting hose connection (1,000 & up)	U44		x
280.20c	Overfill prevention - Testing request	U52		x
280.20C	Overfill prevention - Inoperative	U102		x

2.3.3.4.	Location of fill pipe & identified	U46		x
3.7.2.1.	Vent pipes, 12 feet Class I liquid	U32		na
3.7.2.4.	Vent pipes, Class II & IIIA	U33		x
2.3.3.4	Drop tube: 6 inches of tank bottom	U45		x
6.4.4.	Covers to tank sumps – condition	U64		x
2.2.3.1	Tanks proper design & construction	U12		x
280.20	Cathodic protection for tanks	U29		x

PIPING SECTION

280.40	Release detection for piping	U71		na
280.44a	Line leak detector installed	U76		na
280.20	Cathodic protection for piping	U29		x

280.44c	Interstitial (monthly) monitoring	U94		na
3.2.2.	Pipe leaks	U62		x
280.20b	Piping shall be approved material	U61		x

Tank Construction FRP S/W Piping Material Stl inside frp Has GPS readings been taken _____

Piping; Suction X Pressure_____ Sump Sensors: Yes ____ No X Tank Monitor Model Emco wheaton

COMMENTS_____

INSPECTOR Craig Galbreath DATE 2/17/2015

LARA
LICENSING AND REGULATORY AFFAIRS
CUSTOMER DRIVEN. BUSINESS MINDED

STATE OF MICHIGAN

LICENSING AND REGULATORY AFFAIRS
BUREAU OF FIRE SERVICES STORAGE TANK DIVISION

FACILITY INSPECTION REPORT

Owner Name & Address:

GT Ranch LLC
PO Box 249
Jackson, MI 49204-0249

Location of Tanks:

GT Ranch LLC
14950 Horning Rd
Brooklyn, MI 49230-9545
County - Jackson
Facility ID - 00012122

ATTENTION: Gary

An Existing Facility Inspection was conducted on February 17, 2015, for the above-referenced facility for compliance with Part 211, Underground Storage Tank Regulations, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the Michigan Underground Storage Tank Rules (MUSTR), 2008 AACS R 29.2101 et seq.; and the applicable sections of the rules for the Storage and Handling of Flammable and Combustible Liquids, 2014 AACS R 29.5601 et seq. The inspection showed that the facility is temporarily approved.

1 Owners or operators of petroleum USTs must demonstrate proof of financial responsibility.
Section 280.93

Special Attention : Submit insurance for tanks showing coverage dates, and amounts. Every year when you pay your annual tank fees submit the insurance with your check.

2 Every facility having 1 or more UST systems subject to MUSTR shall have a class A and class B operator.
UST 280.13

3 The class B operator shall conduct a site visit inspection at a minimum quarterly basis to determine operational compliance of each regulated UST.
UST 280.13(c)(1)

4 Class B operator shall prepare a written record of each site visit inspection on a form provided by, or acceptable to the department and contain an original signature of the class B operator.
280.13(c)(2)

5 The owner/operator shall submit an amended registration form indicating a class A and class B operator for each facility.
UST 280.13(a)

Submit requested documentation to : galbreathc@michigan.gov

The inspection and violations (if any) were discussed with you at the time of the inspection.

Documentation shall be furnished to the district office identified below verifying that the violation(s), cited in this inspection report have been corrected. The documentation shall be provided by April 17, 2015. If the cited violation(s) are not corrected and/or certification of compliance is not provided by the date specified, a reinspection will be conducted. The owner or operator of this facility will be subject to civil and criminal provisions pursuant to Part 211 of Act 451, including and not limited to placement of tags to the tank(s) prohibiting delivery of product if the stated violations have not been corrected.

If you have additional questions concerning this matter, please contact me.

Craig Galbreath

2/17/2015

Date

Craig Galbreath
Hazardous Materials Storage Inspector
Region 2
PO Box 30033
Lansing, MI 48909
Phone: (517) 262-2136
Fax: (517) 332-1428
Email: galbreathc@michigan.gov

MICHIGAN DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS
BUREAU OF FIRE SERVICES - STORAGE TANK DIVISION

Telephone : (517) 241-9486
Facsimile : (517) 332-1428

UNDERGROUND STORAGE TANKS ANNUAL REGISTRATION INVOICE

Under Authority of the Natural Resource and Environmental Protection Act,1994 PA 451 (NREPA), as amended, submission of false information and/or failure to pay the required Annual Underground Storage Tank Fee may result in a misdemeanor and/or civil penalties.

Fiscal Year 2015 | Invoice Date November 20, 2014 | Page 1 of 1

Owner Address	Location Address
GT Ranch, LLC ~~Glynn Trolz & Associates~~ Inc PO Box 249 Jackson, MI 49204-0249	GT Ranch, LLC ~~Glynn Trolz~~ & Associates Inc 14950 Horning Rd Brooklyn, MI 49230-9545

ENTERED (SEK) FEB 17 2015

Pursuant to Section 21102(8), Part 211 of NREPA, the owner of an underground storage tank system shall, upon registration or renewal of registration, pay a registration fee for each underground tank Section 21102(10) requires that the owner of an underground storage tank system shall continue to pay registration fees on underground storage tanks that have been closed or removed until notification of the closure or removal is provided on the required form BFS 3821

The period of registration is from 1/1/2015 to 12/31/2015; tank(s) must be closed or removed before 1/1/2015 and notification of the closure or removal must be received by 01/31/2015 Please indicate facility number on payments.

Payment can be made by credit card at, https://www.thepayplace.com/mi/deleg/ust

Facility Number	Tank Number	Tank Size	Contents	Registration Fee
00012122	2	7200 Gal	Gasoline	$100.00

RECEIVED
DEC 23 2014
BUREAU OF FIRE SERVICES

1327 12/17/14

Registration Fee.	$100.00
Previous Balance:	$0.00
Adjustments:	$0.00
Penalty Assessment:	$0.00
Amount Received:	$0.00
Balance Due:	$100.00

Payment Due On Or Before : January 1, 2015

Payment can be made by credit card at, https://www.thepayplace.com/mi/deleg/ust

See reverse side for FINANCIAL RESPONSIBILITY requirements.

Facility Number: 00012122
Total Due $100.00

Owner Please Note :

Make check or money order payable to **"State Of Michigan"**
Please indicate **FACILITY NUMBER** on check or money order and send this with payment to

CASHIERS OFFICE UST/AST
P O BOX 30033
LANSING, MI 48909

For Cashier's Use Only.

Tran Info:280 20062557-1 12/22/14
Chk#: 1327 Amt: $100.00
ID: 00012122 GT RANCH LLC

From: Jackson County Public Records
To: FOIA
Subject: [Records Center] County Records Request :: C002175-091124
Date: Monday, September 16, 2024 9:18:42 AM

--- Please respond above this line ---

RE: County Records Request of September 11, 2024, Reference # C002175-091124

Dear Laura Gray,

Jackson County received a public records request from you on September 11, 2024. Your request mentioned:

> **Environmental-Health:**
> **ASTI is conducting an environmental site assessment for a site in Norvell in Jackson County , Michigan. Please advise me if there are records regarding well/septic, landfilling activity, spills/releases, 201 sites, ASTs, USTs, or other environmental concerns on the following properties. We would like to go back as far as possible to present in the history of the property , if costs exceed $25, please let me know before proceeding.**
> **14760 Horning Rd, Tax ID: 000-20-13-400-001-01.**
> **000-20-13-251-001-01.**
> **000-20-13-301-001-00**
> **000-20-13-151-001-00.**
> **000-20-14-400-001-01**
> **000-20-24-200-001-00.**
> **000-20-25-101-001-00.**
> **000-20-24-351-001-00.**
> **000-20-24-301-001-00**
> **000-20-24-301-002-00**
> **000-20-13-400-001-01**
> **000-20-12-276-001-00**
> **000-20-12-176-001-00**
> **000-20-12-101-001-00**

Jackson County has reviewed its files and has determined there are no responsive record(s) to your request.

For questions or additional information, please reply to this email.

Sincerely,

Dlaine Wilson
Administrator/Controller's Office

FREEDOM OF INFORMATION ACT (EXCERPT)
Act 442 of 1976

15.240.amended Options by requesting person; appeal; actions by public body; receipt of written appeal; judicial review; civil action; venue; de novo proceeding; burden of proof; private view of public record; contempt; assignment of action or appeal for hearing, trial, or argument; attorneys' fees, costs, and disbursements; assessment of award; damages.

Sec. 10.

(1) If a public body makes a final determination to deny all or a portion of a request, the requesting person may do 1 of the following at his or her option:

(a) Submit to the head of the public body a written appeal that specifically states the word "appeal" and identifies the reason or reasons for reversal of the denial.

(b) Commence a civil action in the circuit court, or if the decision of a state public body is at issue, the court of claims, to compel the public body's disclosure of the public records within 180 days after a public body's final determination to deny a request.

(2) Within 10 business days after receiving a written appeal pursuant to subsection (1)(a), the head of a public body shall do 1 of the following:

(a) Reverse the disclosure denial.

(b) Issue a written notice to the requesting person upholding the disclosure denial.

(c) Reverse the disclosure denial in part and issue a written notice to the requesting person upholding the disclosure denial in part.

(d) Under unusual circumstances, issue a notice extending for not more than 10 business days the period during which the head of the public body shall respond to the written appeal. The head of a public body shall not issue more than 1 notice of extension for a particular written appeal.

(3) A board or commission that is the head of a public body is not considered to have received a written appeal under subsection (2) until the first regularly scheduled meeting of that board or commission following submission of the written appeal under subsection (1)(a). If the head of the public body fails to respond to a written appeal pursuant to subsection (2), or if the head of the public body upholds all or a portion of the disclosure denial that is the subject of the written appeal, the requesting person may seek judicial review of the nondisclosure by commencing a civil action under subsection (1)(b).

(4) In an action commenced under subsection (1)(b), a court that determines a public record is not exempt from disclosure shall order the public body to cease withholding or to produce all or a portion of a public record wrongfully withheld, regardless of the location of the public record. Venue for an action against a local public

body is proper in the circuit court for the county in which the public record or an office of the public body is located has venue over the action. The court shall determine the matter de novo and the burden is on the public body to sustain its denial. The court, on its own motion, may view the public record in controversy in private before reaching a decision. Failure to comply with an order of the court may be punished as contempt of court.

(5) An action commenced under this section and an appeal from an action commenced under this section shall be assigned for hearing and trial or for argument at the earliest practicable date and expedited in every way.

(6) If a person asserting the right to inspect, copy, or receive a copy of all or a portion of a public record prevails in an action commenced under this section, the court shall award reasonable attorneys' fees, costs, and disbursements. If the person or public body prevails in part, the court may, in its discretion, award all or an appropriate portion of reasonable attorneys' fees, costs, and disbursements. The award shall be assessed against the public body liable for damages under subsection (7).

(7) If the court determines in an action commenced under this section that the public body has arbitrarily and capriciously violated this act by refusal or delay in disclosing or providing copies of a public record, the court shall order the public body to pay a civil fine of $1,000.00, which shall be deposited into the general fund of the state treasury. The court shall award, in addition to any actual or compensatory damages, punitive damages in the amount of $1,000.00 to the person seeking the right to inspect or receive a copy of a public record. The damages shall not be assessed against an individual, but shall be assessed against the next succeeding public body that is not an individual and that kept or maintained the public record as part of its public function.

History: 1976, Act 442, Eff. Apr. 13, 1977 ;-- Am. 1978, Act 329, Imd. Eff. July 11, 1978 ;-- Am. 1996, Act 553, Eff. Mar. 31, 1997 ;-- Am. 2014, Act 563, Eff. July 1, 2015

To monitor the progress or update this request please log into the FOIA Center for Public Records

From: Tonya Cole
To: FOIA
Subject: FOIA- P -16-18-200-007, Herman Rd.
Date: Monday, September 23, 2024 12:06:28 PM
Attachments: image001.gif

Good Afternoon~

In response to your request for the above mentioned records, the Washtenaw County Environmental Health and Building Inspection departments, have no documents or records that would meet your request. I therefore certify that to the best of my knowledge, no records exist or are available that would satisfy your request.

If you disagree with this decision or fees, you may submit a written appeal specifically stating "**appeal**" and stating the reasons for appeal, to foiaappeal@washtenaw.org or seek judicial review under Section 10 of the Act within 180 days after the County's final determination. Submit your clearly marked FOIA APPEAL to: Washtenaw County Administrator, 220 N. Main Street, Ann Arbor, MI 48107-8645, fax shall (a) reverse the denial; (b) issue a written notice upholding the denial; (c) reverse in p: 734-222-9563 or email: foiaappeal@washtenaw.org. Within ten (10) days of receiving a request for an appeal, the County Administrator art and uphold in part by written notice; or (d) issue a notice extending by ten (10) business days the time to decide the appeal.

In accordance with the Act, I am providing you the links to Washtenaw County's written FOIA Policy and related information relative to the Freedom of Information Act. This information is available at https://www.washtenaw.org/1128/Freedom-of-Information-Act.

If after judicial review, the Circuit Court determines that the County has not fully complied with the disclosure requirements, the Court shall award reasonable attorneys' fees, costs and disbursements. If the Court determines that the County has arbitrarily and capriciously violated the Act, it will also award punitive damages of $1,000.00.

A copy of this request will be kept on file for no less than one (1) year.

Please let me know if I can be of any further assistance.

Thank you~ Tonya Cole,
Building Inspection & Environmental Health
Administrative Supervisor
705 N. Zeeb Rd.
Ann Arbor, MI 48103
Desk- 734-222-3962
Fax- 734-222-3930

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the original message, including attachments.

From: Western Washtenaw Construction Authority
To: Aliya Spotts
Subject: Re: FOIA Building Request
Date: Tuesday, September 24, 2024 11:35:42 AM
Attachments: image001.png

Aliya, I looked up that parcel number in our database and we have not had any permits pulled on the property. Since I saw the map you attached I looked in our SESC (soil erosion) database and there was nothing there either. So our building official will not be any help either since we do not have any permits on this property.

Sorry, kind regards,

Tammy Koteles
Executive Assistant
Western Washtenaw Construction Authority
Ph: 734-428-7001
Fx: 734-428-1849
Our office hours are M,W, F 8:00 a.m. - 1:00 p.m.
To Make Permit Payments Click Here
To Access Forms & Information Click Here

On Tue, Sep 24, 2024 at 11:04 AM Aliya Spotts <aspotts@asti-env.com> wrote:

> Good Morning Tammy,
>
> Here is the filled-out form. Thanks!
>
> Best,
>
> **Aliya Spotts**
>
> Environmental Technician I
>
> **Cell:** 810.599.6296 | **Office:** 810.225.2800 ext. 212 | **Main:** 800.395.2784
>
> aspotts@asti-env.com

10448 Citation Dr., Suite 100, Brighton, MI 48116

asti-env.com | peagroup.com | linkedin

As of April 24, 2024, ASTI Environmental has been acquired by PEA Group.

From: Western Washtenaw Construction Authority <wwcabuild@gmail.com>
Sent: Tuesday, September 24, 2024 9:35 AM
To: Aliya Spotts <aspotts@asti-env.com>
Subject: Re: FOIA Building Request

Good morning,

Thank you for your inquiry. I will see what I can find out but in the meantime if you could also please fill out our FOIA form that would be appreciated. Once I receive it back I will take a look into what I can find. I will also have our building official take a look at the map you have provided to see if he has any input on it but he will not be in the office until tomorrow our next business day.

Thank you!

Tammy Koteles

Executive Assistant

Western Washtenaw Construction Authority

Ph: 734-428-7001

Fx: 734-428-1849

Our office hours are M,W, F 8:00 a.m. - 1:00 p.m.

To Make Permit Payments Click Here

To Access Forms & Information Click Here

On Mon, Sep 23, 2024 at 5:31 PM Aliya Spotts <aspotts@asti-env.com> wrote:

> Hello,
>
> Please accept the attachment. I included an outline of the property. Thank you!

Aliya Spotts

Environmental Technician I

Cell: 810.599.6296 | **Office:** 810.225.2800 ext. 212 | **Main:** 800.395.2784

aspotts@asti-env.com

10448 Citation Dr., Suite 100, Brighton, MI 48116

asti-env.com | peagroup.com | linkedin

As of April 24, 2024, ASTI Environmental has been acquired by PEA Group.

From: Danell Proctor
To: Aliya Spotts
Subject: Re: FOIA Request Manchester
Date: Monday, September 23, 2024 9:32:53 AM
Attachments: 20240923082941.pdf
image001.png

Aliya,
Please find attached the records requested on your FOIA request dated September 11, 2024. There were no records for the fire and zoning department. You will need to contact the Western Washtenaw Construction Authority @ www.wwwcabuild@gmail.com for records from the building department. Please let me know if you have any questions.

Thank you,

Danell Proctor
Manchester Township Clerk
734-428-7090 ext. 110
734-428-0935 - FAX
mtwp_clerk@sbcglobal.net

On Friday, September 13, 2024 at 09:16:55 AM EDT, Danell Proctor <mtwp_clerk@sbcglobal.net> wrote:

Aliya,
Please find attached FOIA Request - 10 Business Day Extension.

Thank you,

Danell Proctor
Manchester Township Clerk
734-428-7090 ext. 110
734-428-0935 - FAX
mtwp_clerk@sbcglobal.net

On Wednesday, September 11, 2024 at 02:42:22 PM EDT, Aliya Spotts <aspotts@asti-env.com> wrote:

Hello,

Please accept the attachment. I have included a map showing the property outline. I circled it in white. Let me know if you have any questions. Thank you!

Best,
Aliya Spotts
Environmental Technician

Brighton, Grand Rapids, and Detroit, Michigan
Ph: 810.225.2800
Fax: 810.225.3800
Cell: 810.599.6296
www.asti-env.com
aspotts@asti-env.com

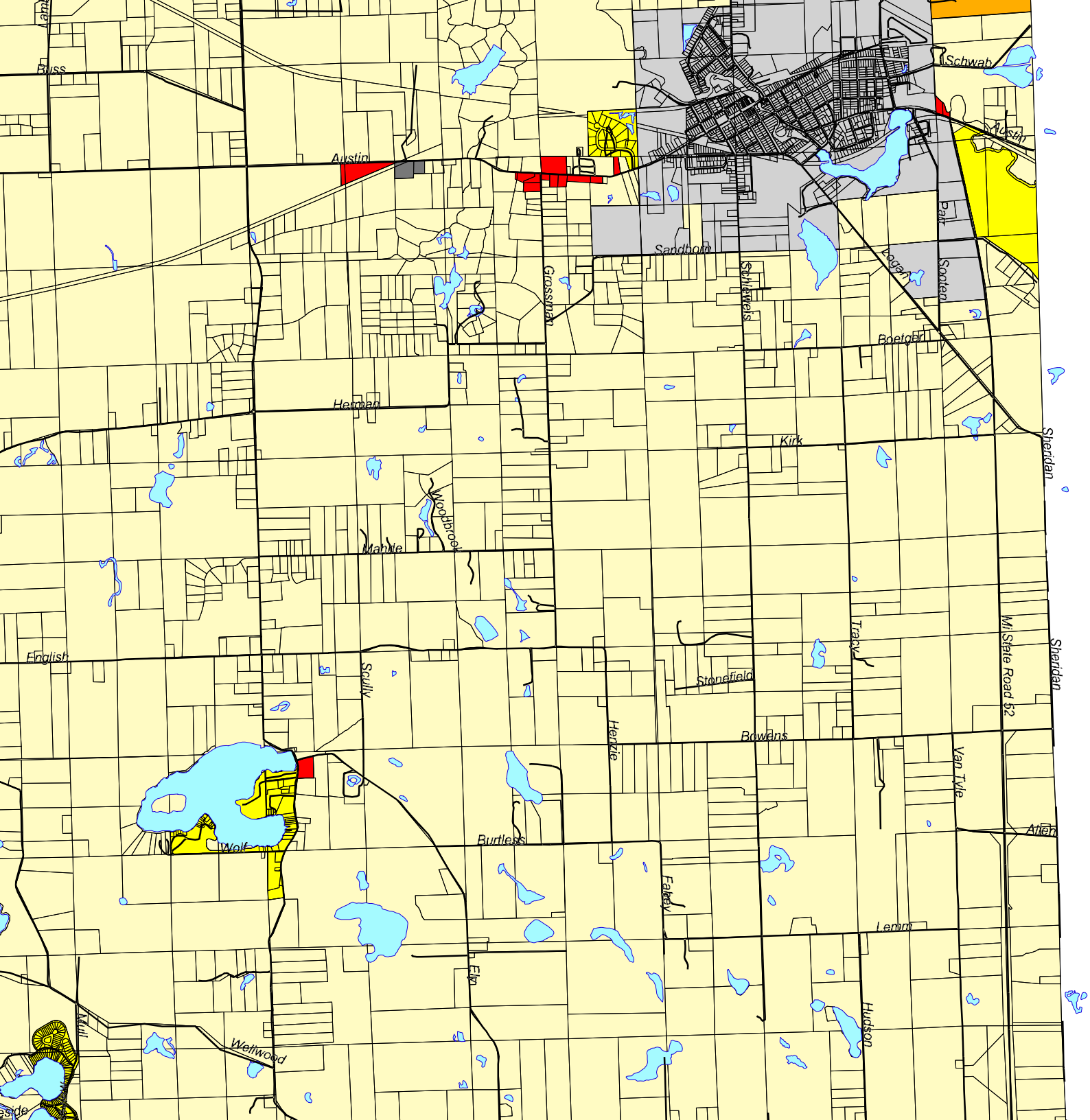
Click here to receive ASTI's technical e-updates.

This email is nonbinding and is not intended to be used to form a contract unless and until a more formal and definitive written contract between the parties is signed.

From: Jeff Oswalt
To: Aliya Spotts
Subject: FOIA dated 9-11-24 Norvell Township
Date: Tuesday, September 17, 2024 2:55:15 PM
Attachments: ASTI.zip

Attached is the information you requested by parcel number. Building permits for each parcel are included in each file. There are very few permits that were issued. All zoning information is also included in each parcel file. I have contacted the fire Department that services that portion of the township and they have no records of any incidents.

Jeffrey Oswalt
Township Clerk
(517) 536-4370 x-102
joswalt@norvelltwp-mi.gov
Website: norvelltwp-mi.gov



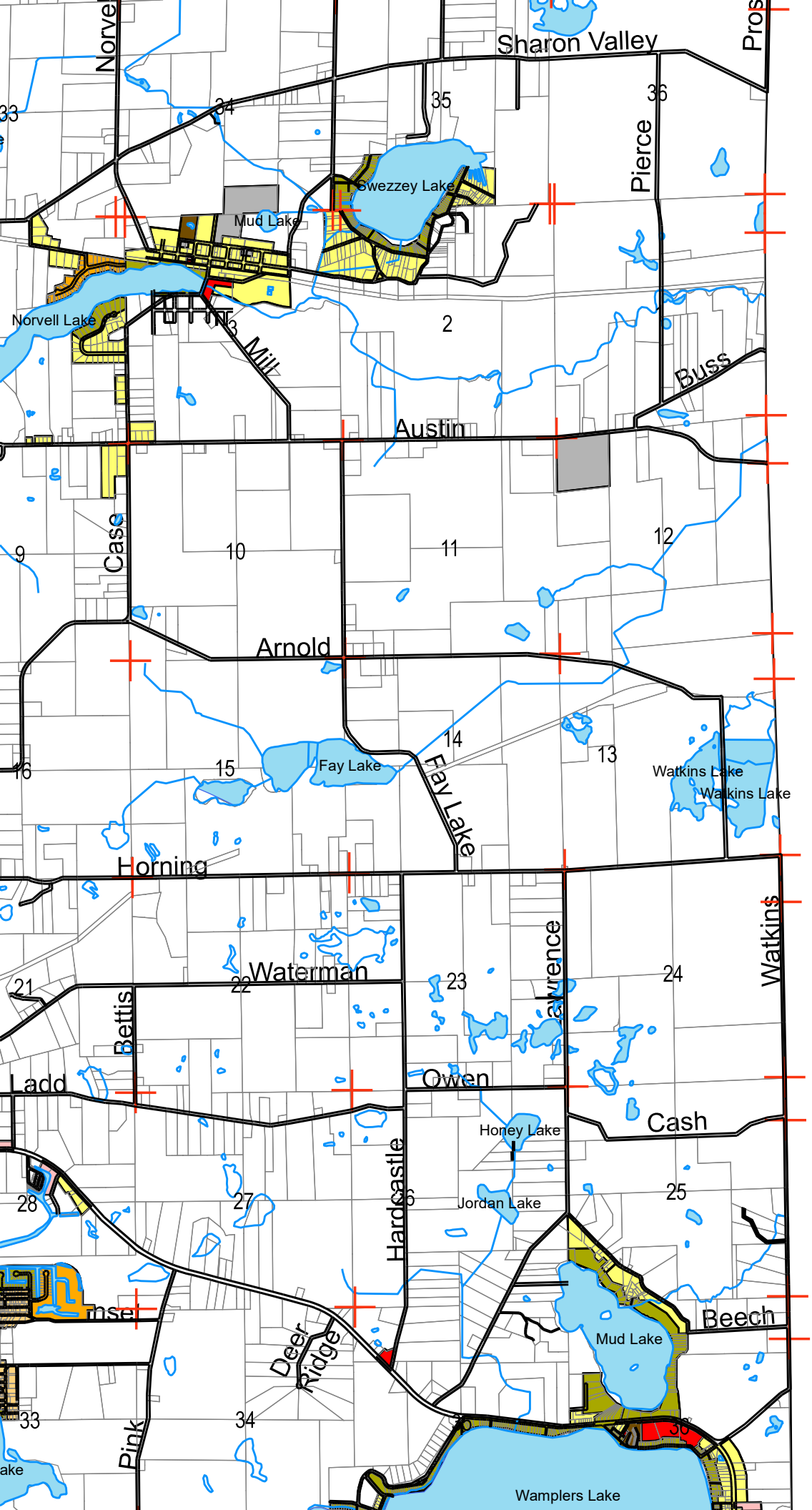
MANCH

Zon

Legend

- Rural A
- Low De
- Mobile
- Commu
- Commu
- Village

2000 0



Norvell Township

Jackson Co

Zoning

AG-1	Agricultural Di
RS-1	Single Family Suburban Residential Dis
RS-2	Single Family Suburban Residential 2 D
RL-1	Single Family Residential Dis
RM-1	Multiple Family Residential Dis
MH-1	Mobile Home Residential Dis
C-1	Local Commercial District
C-2	General Commercial District
I-1	Light Industrial District

APPENDIX E

Historical Research Documentation
EDR Aerial Photo Decade Package
EDR Sanborn Report
EDR City Directory Image Report
EDR Historical Topo Map Report

14155 Austin Rd

14155 Austin Rd

BROOKLYN, MI 49230

Inquiry Number: 7760346.8

September 13, 2024

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

09/13/24

Site Name:

14155 Austin Rd
14155 Austin Rd
BROOKLYN, MI 49230
EDR Inquiry # 7760346.8

Client Name:

Applied Science & Technology
10448 Citation Drive
Brighton, MI 48116
Contact: Aliya Spotts

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	*Scale*	*Details*	*Source*
2020	1"=750'	Flight Year: 2020	USDA/NAIP
2016	1"=750'	Flight Year: 2016	USDA/NAIP
2012	1"=750'	Flight Year: 2012	USDA/NAIP
2009	1"=750'	Flight Year: 2009	USDA/NAIP
2006	1"=750'	Flight Year: 2006	USDA/NAIP
1998	1"=750'	Acquisition Date: April 23, 1998	USGS/DOQQ
1987	1"=750'	Flight Date: June 05, 1987	USDA
1981	1"=750'	Flight Date: May 03, 1981	USDA
1975	1"=750'	Flight Date: January 01, 1975	USGS
1969	1"=750'	Flight Date: March 19, 1969	USDA
1956	1"=750'	Flight Date: January 01, 1956	USGS
1940	1"=750'	Flight Date: October 10, 1940	USDA
1938	1"=750'	Flight Date: July 03, 1938	USDA

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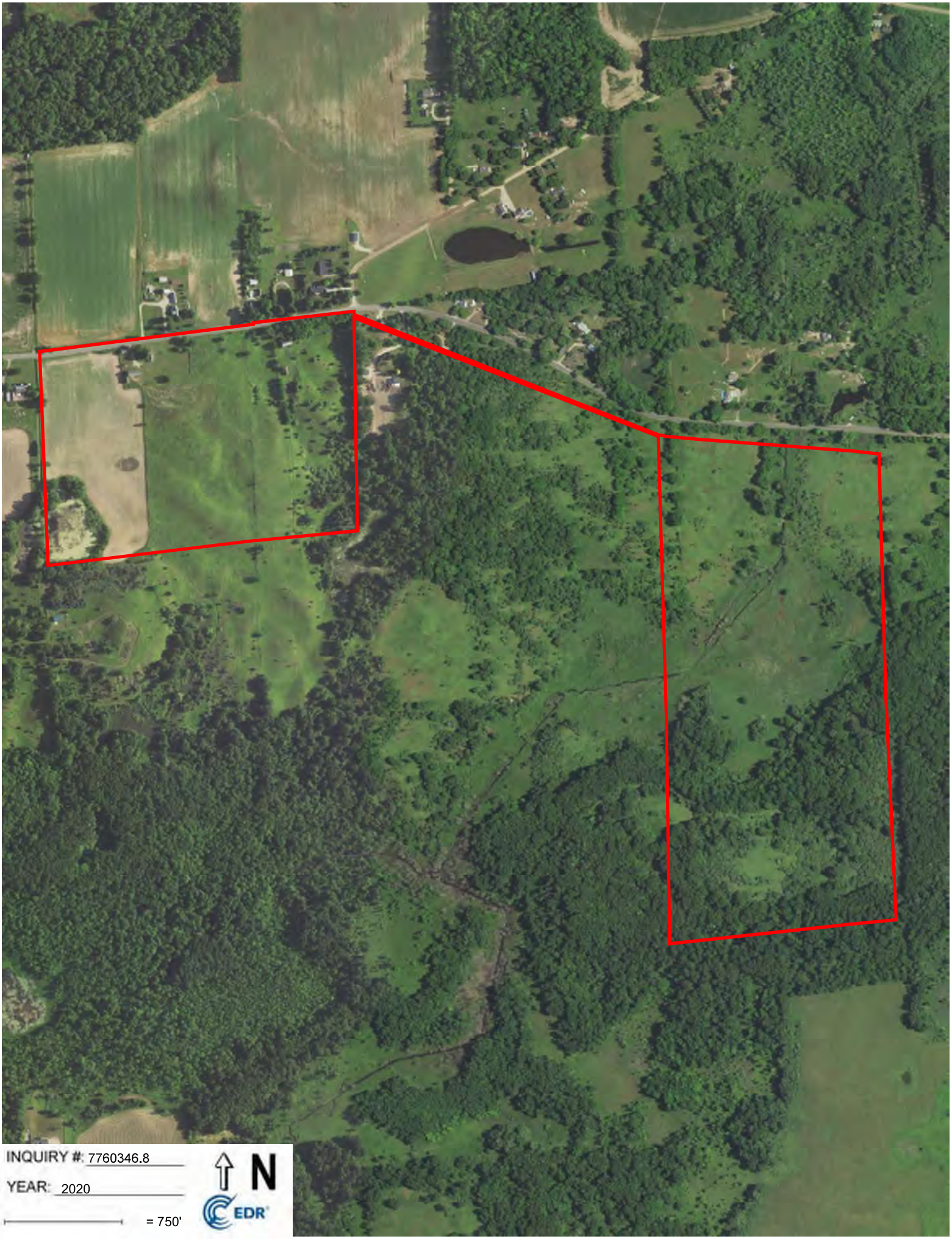
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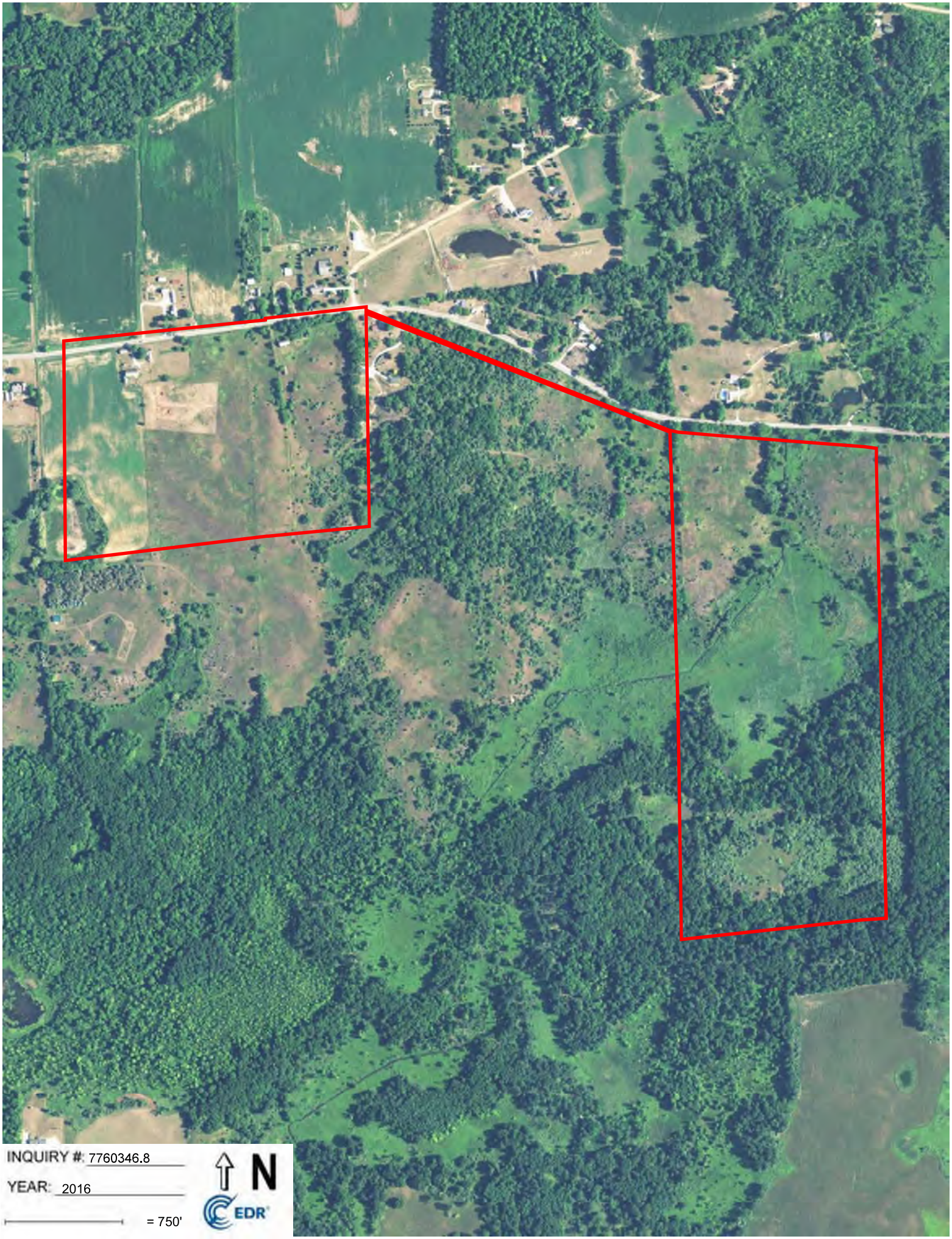
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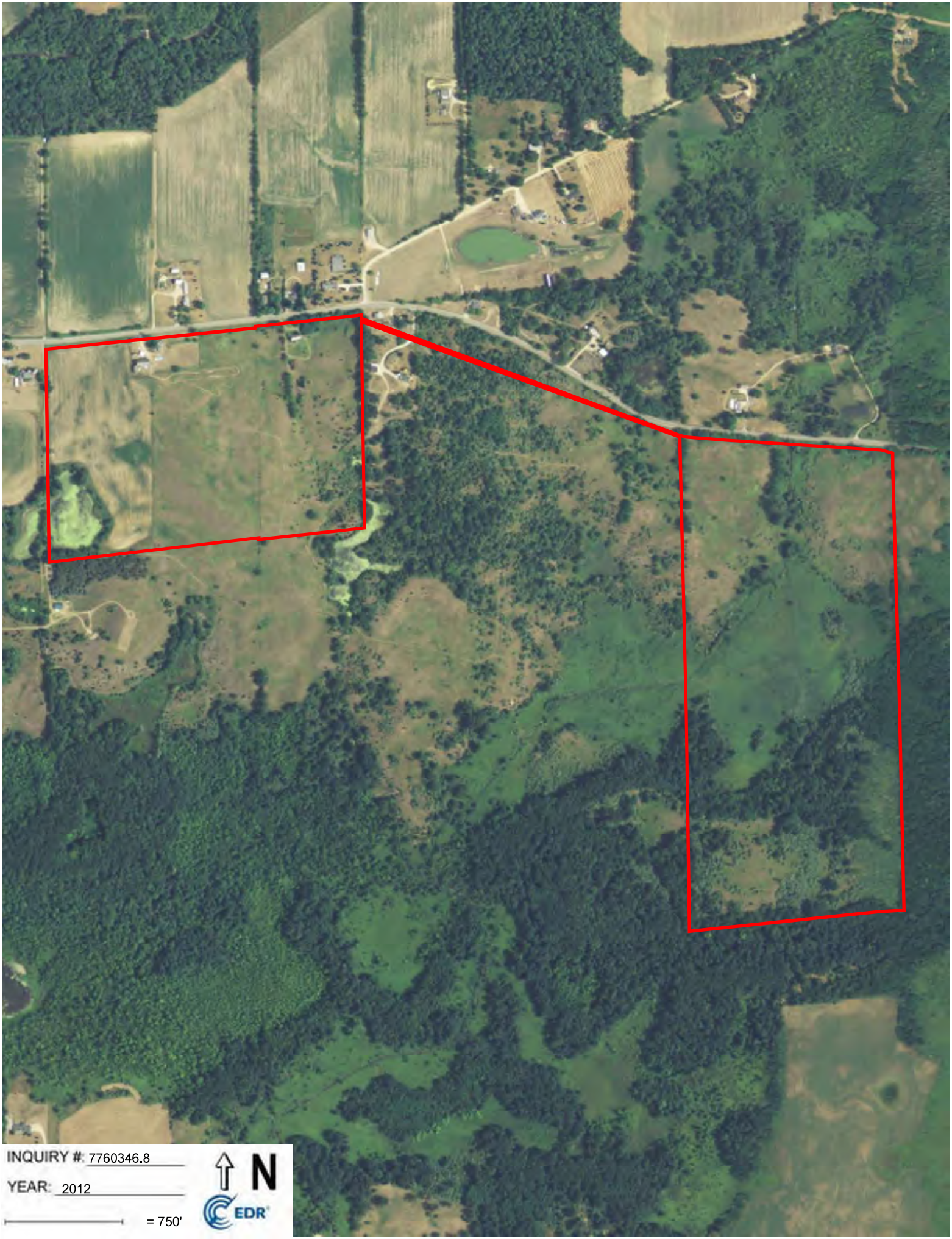
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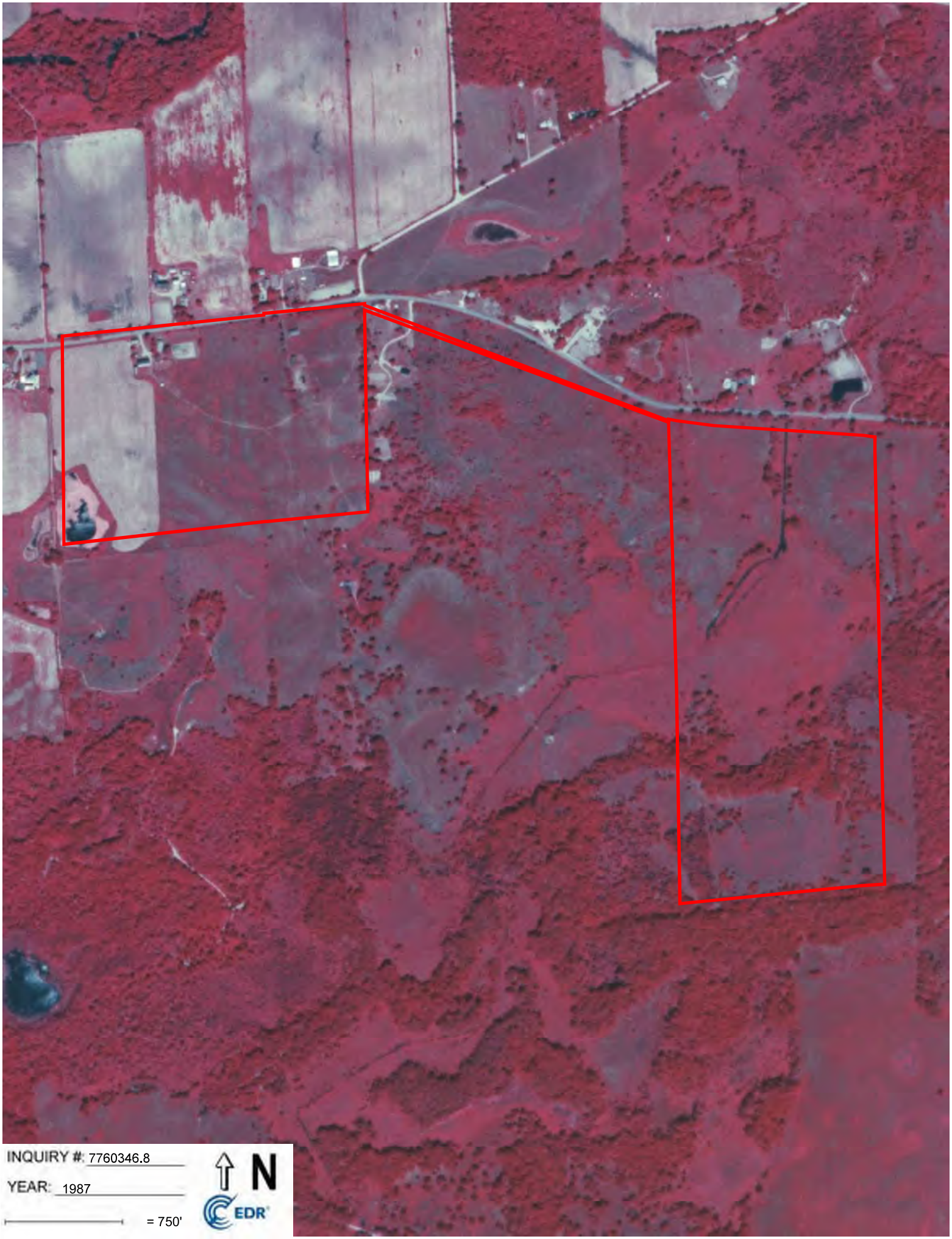
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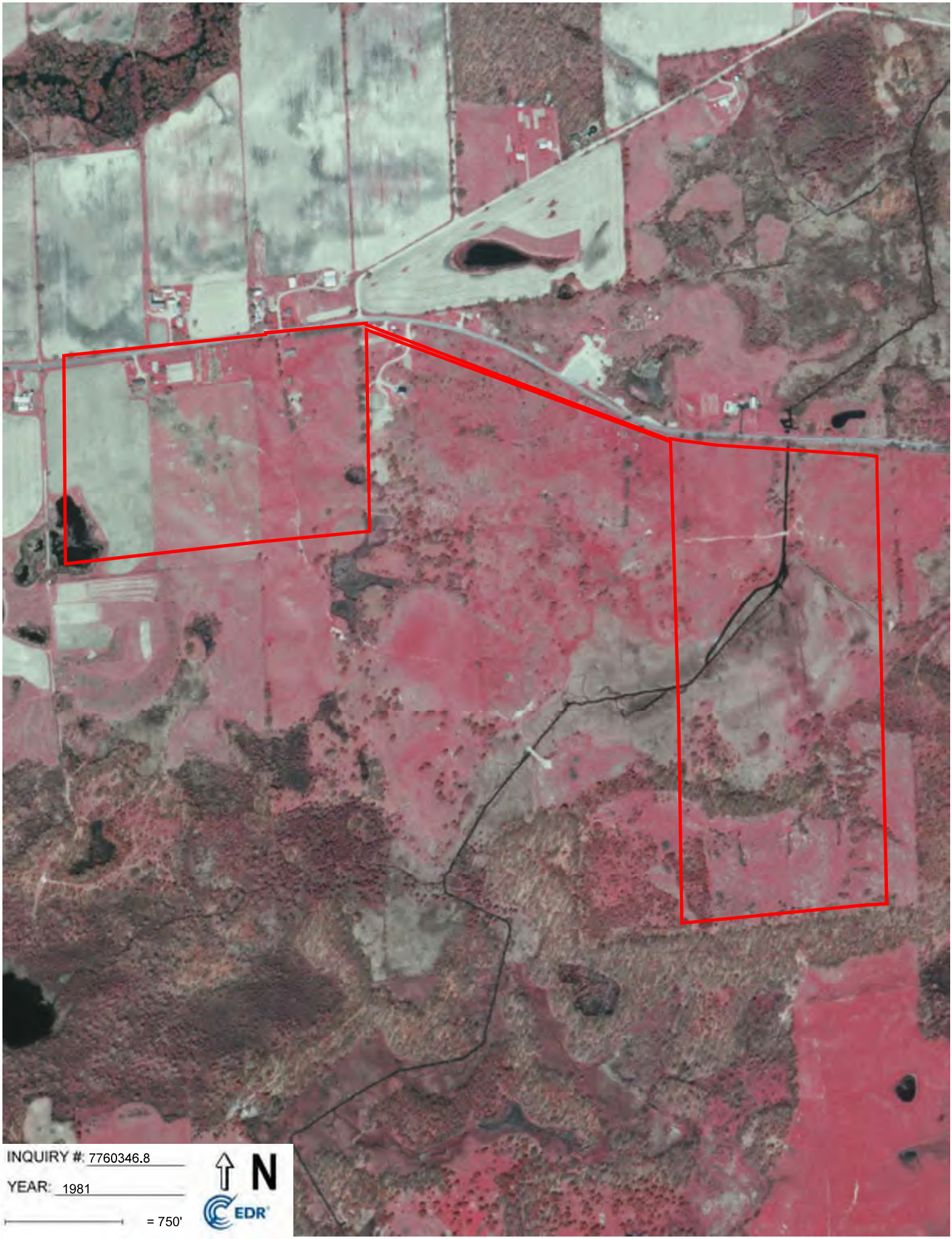
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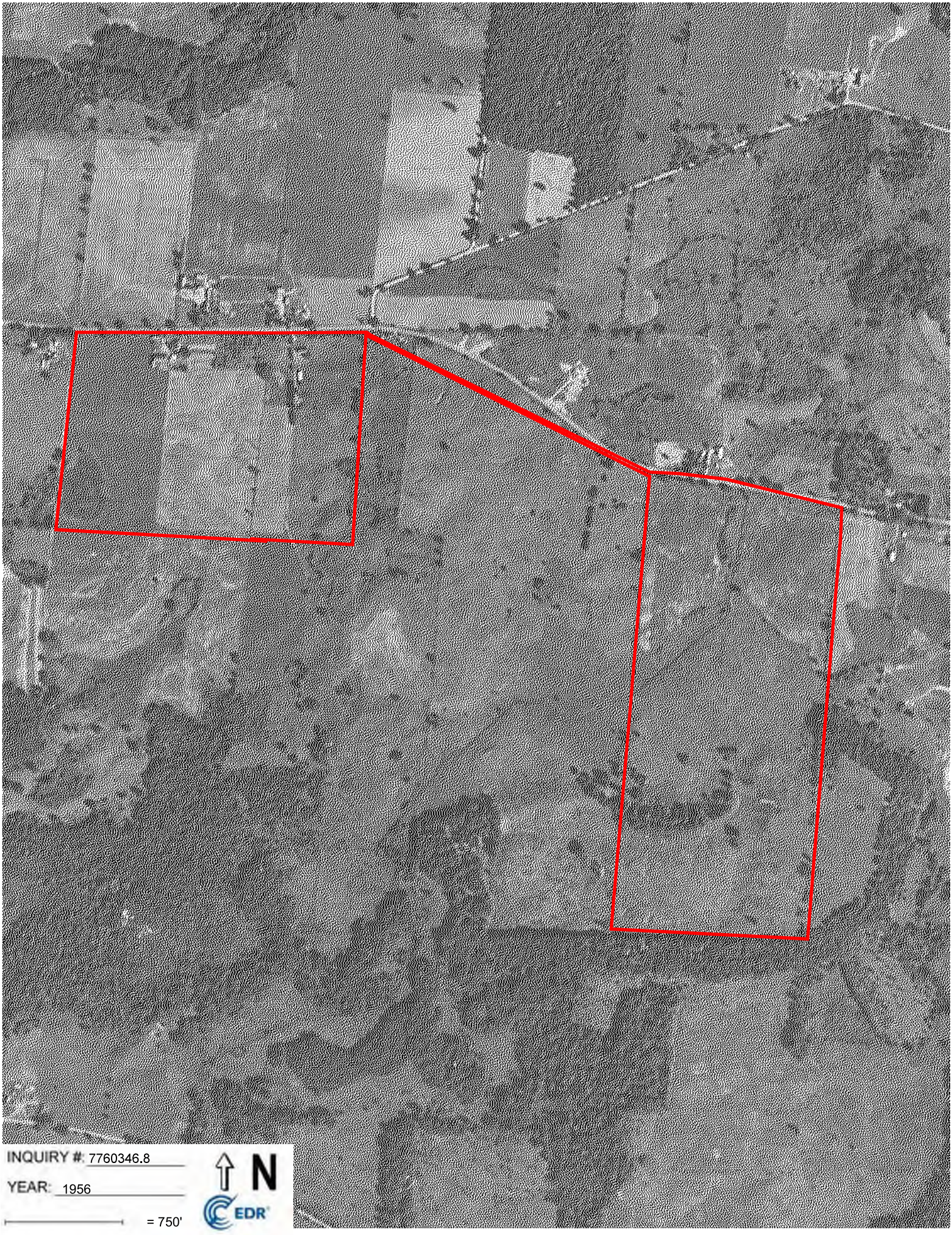
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EDR

INQUIRY #: 7760346.8
YEAR: 1938
= 750'
N
EDR

Not Reported

Not Reported

BROOKLYN, MI 49230

Inquiry Number: 7259096.8

February 23, 2023

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

02/23/23

Site Name:

Not Reported
Not Reported
BROOKLYN, MI 49230
EDR Inquiry # 7259096.8

Client Name:

Applied Science & Technology
10448 Citation Drive
Brighton, MI 48116
Contact: Laura Gray

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Search Results:

Year	*Scale*	*Details*	*Source*
2020	1"=1125'	Flight Year: 2020	USDA/NAIP
2016	1"=1125'	Flight Year: 2016	USDA/NAIP
2012	1"=1125'	Flight Year: 2012	USDA/NAIP
2005	1"=1125'	Flight Date: January 01, 2005	USGS
1998	1"=1125'	Acquisition Date: April 23, 1998	USGS/DOQQ
1987	1"=1125'	Flight Date: June 05, 1987	USDA
1981	1"=1125'	Flight Date: May 03, 1981	USDA
1979	1"=1125'	Flight Date: September 20, 1979	USDA
1969	1"=1125'	Flight Date: January 01, 1969	USGS
1956	1"=1125'	Flight Date: January 01, 1956	USGS
1952	1"=1125'	Flight Date: January 01, 1952	USGS
1938	1"=1125'	Flight Date: July 03, 1938	USDA

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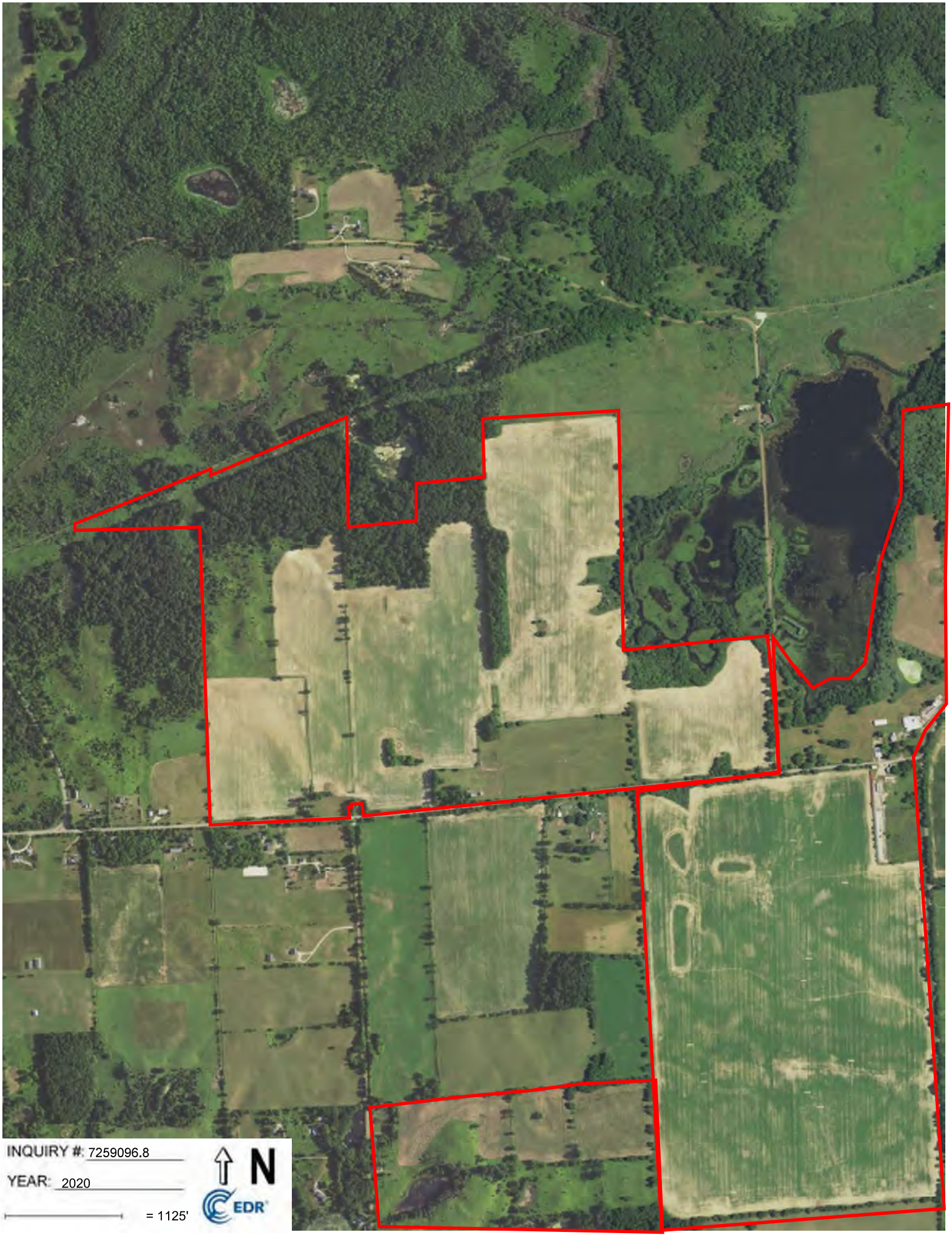
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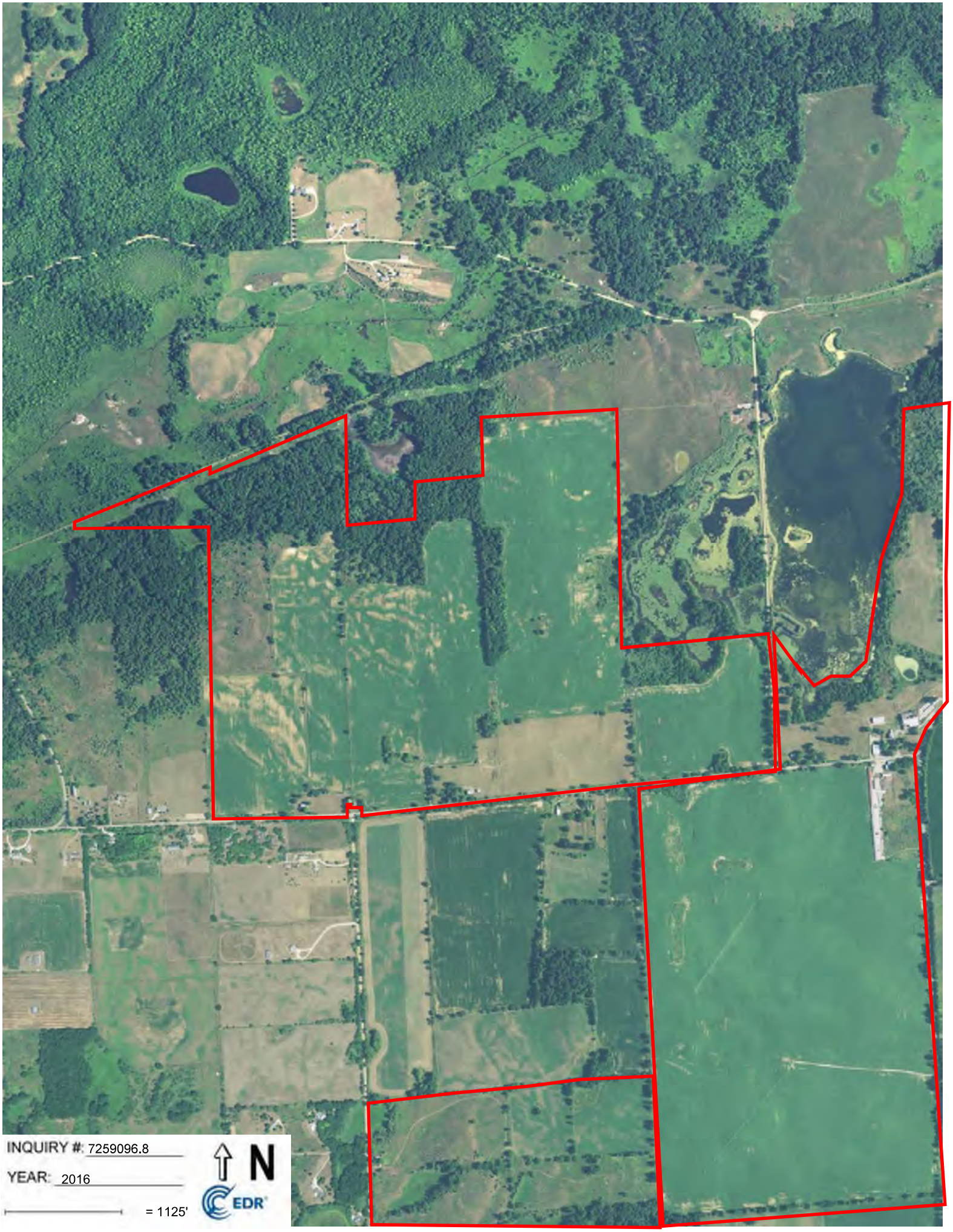
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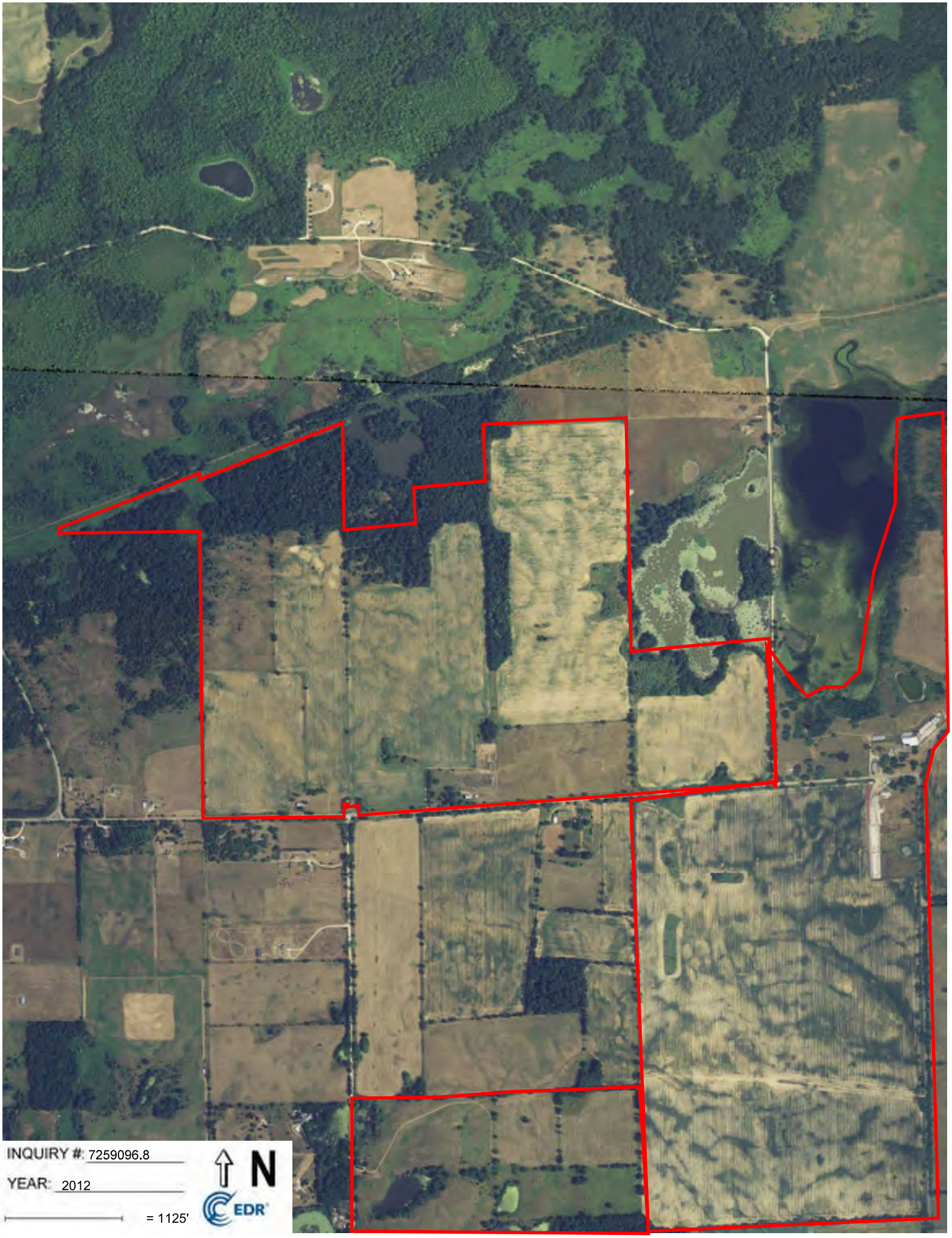
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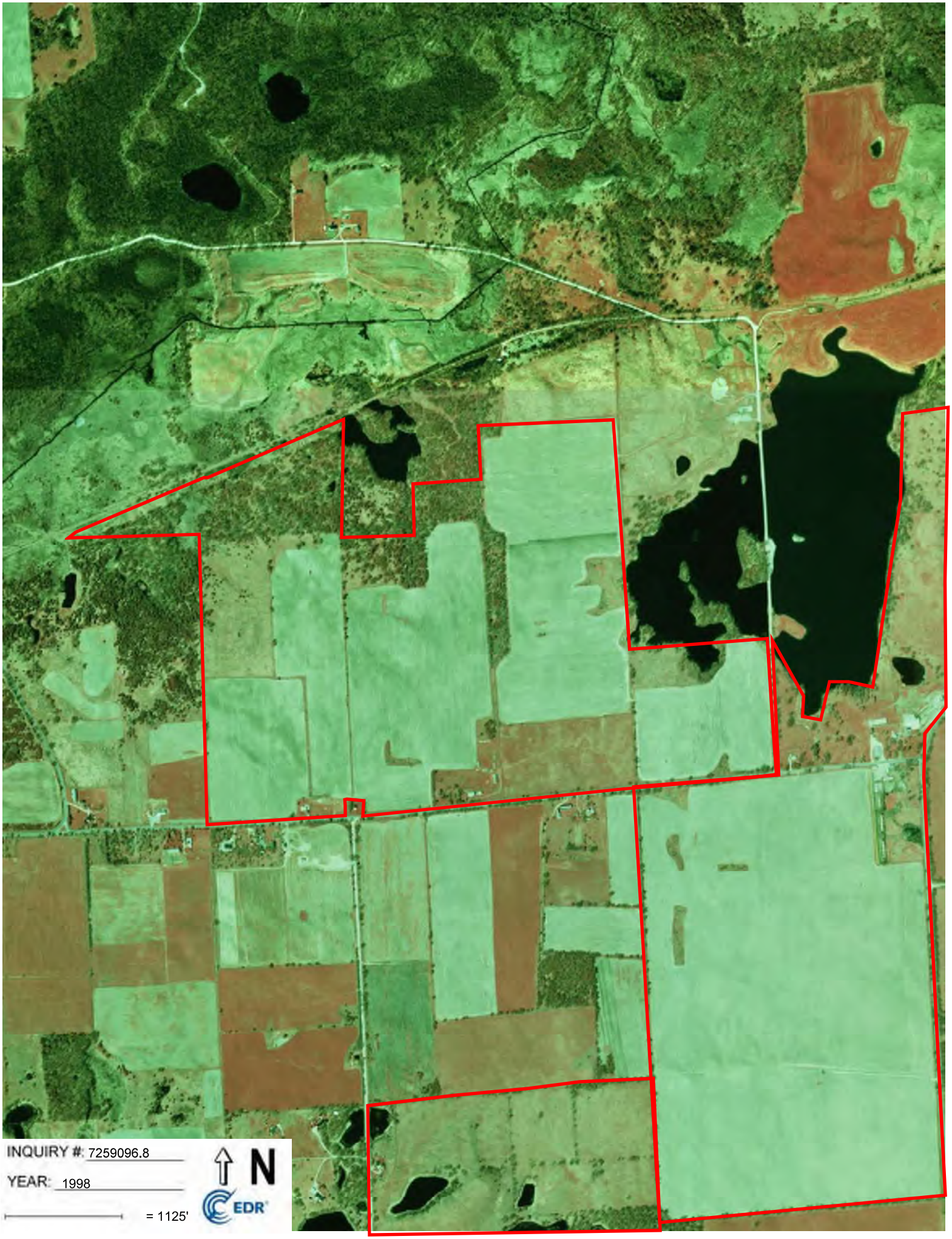
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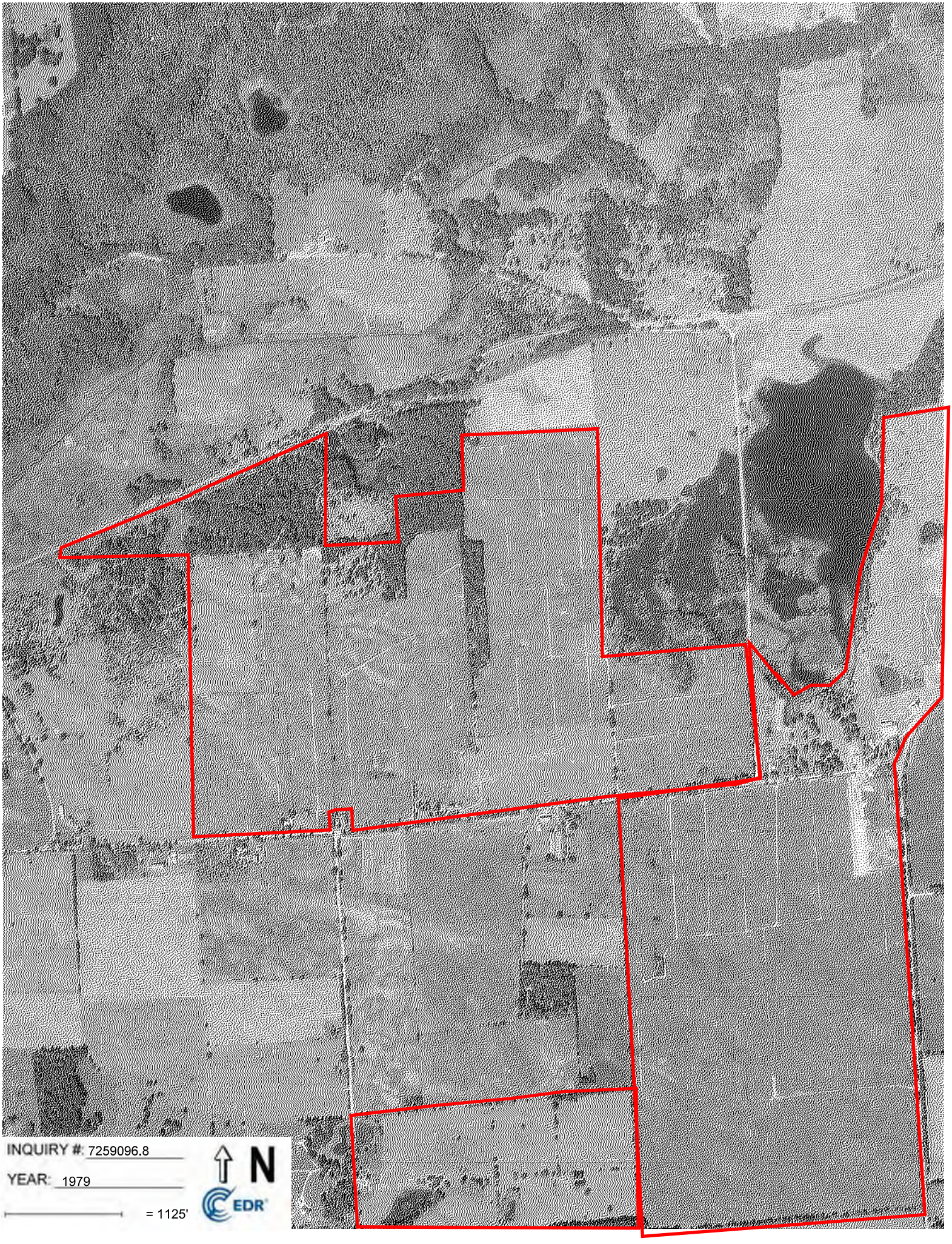
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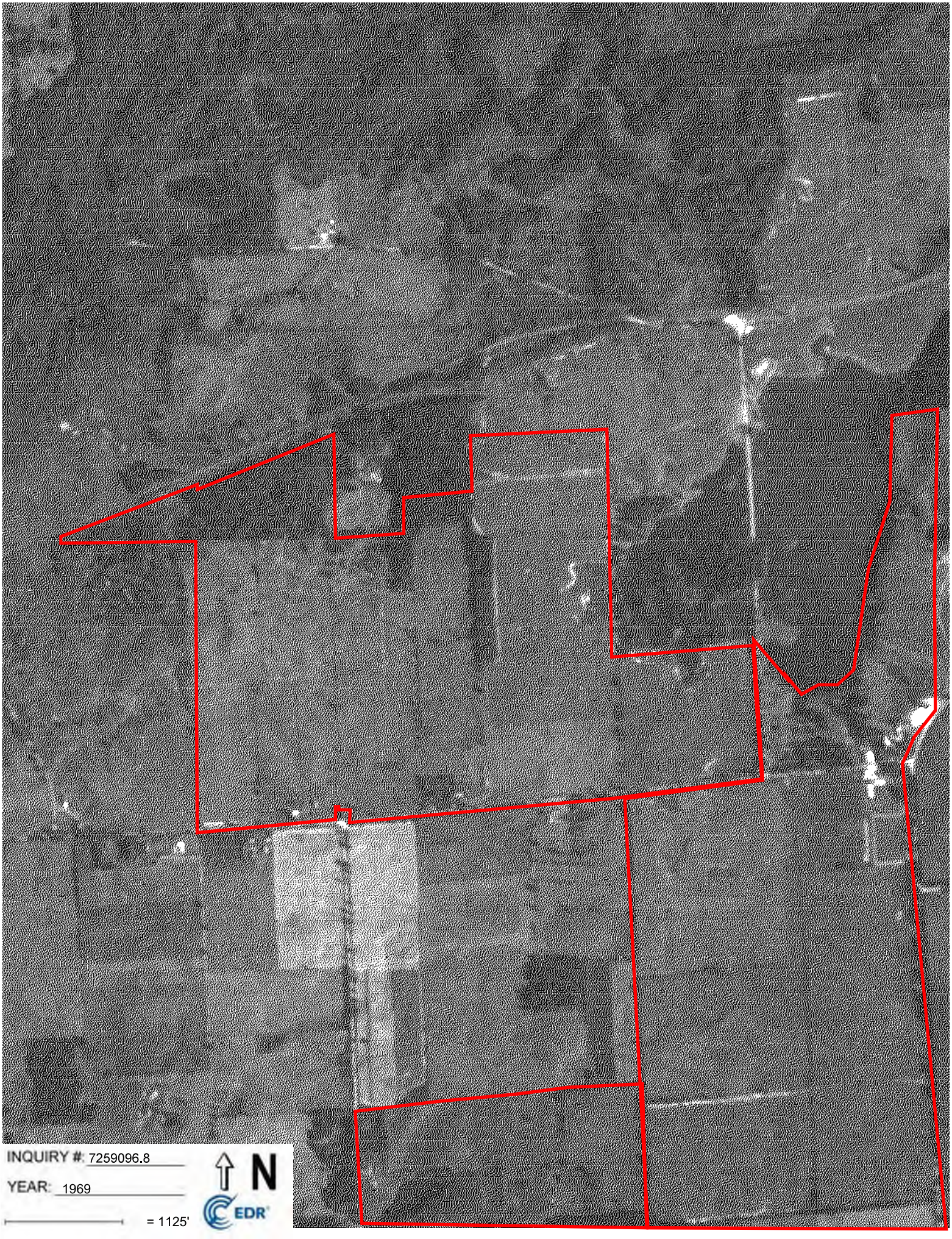
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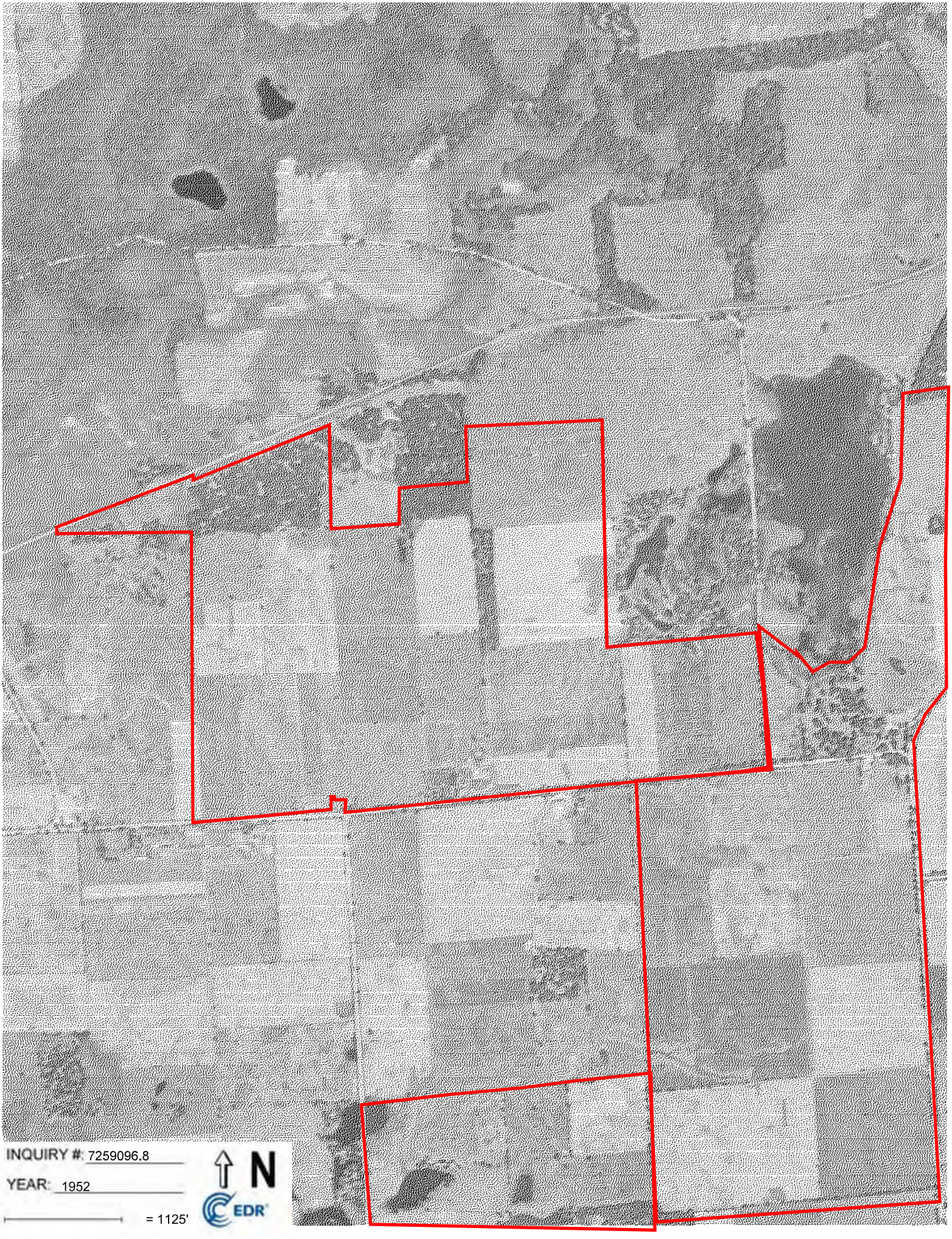
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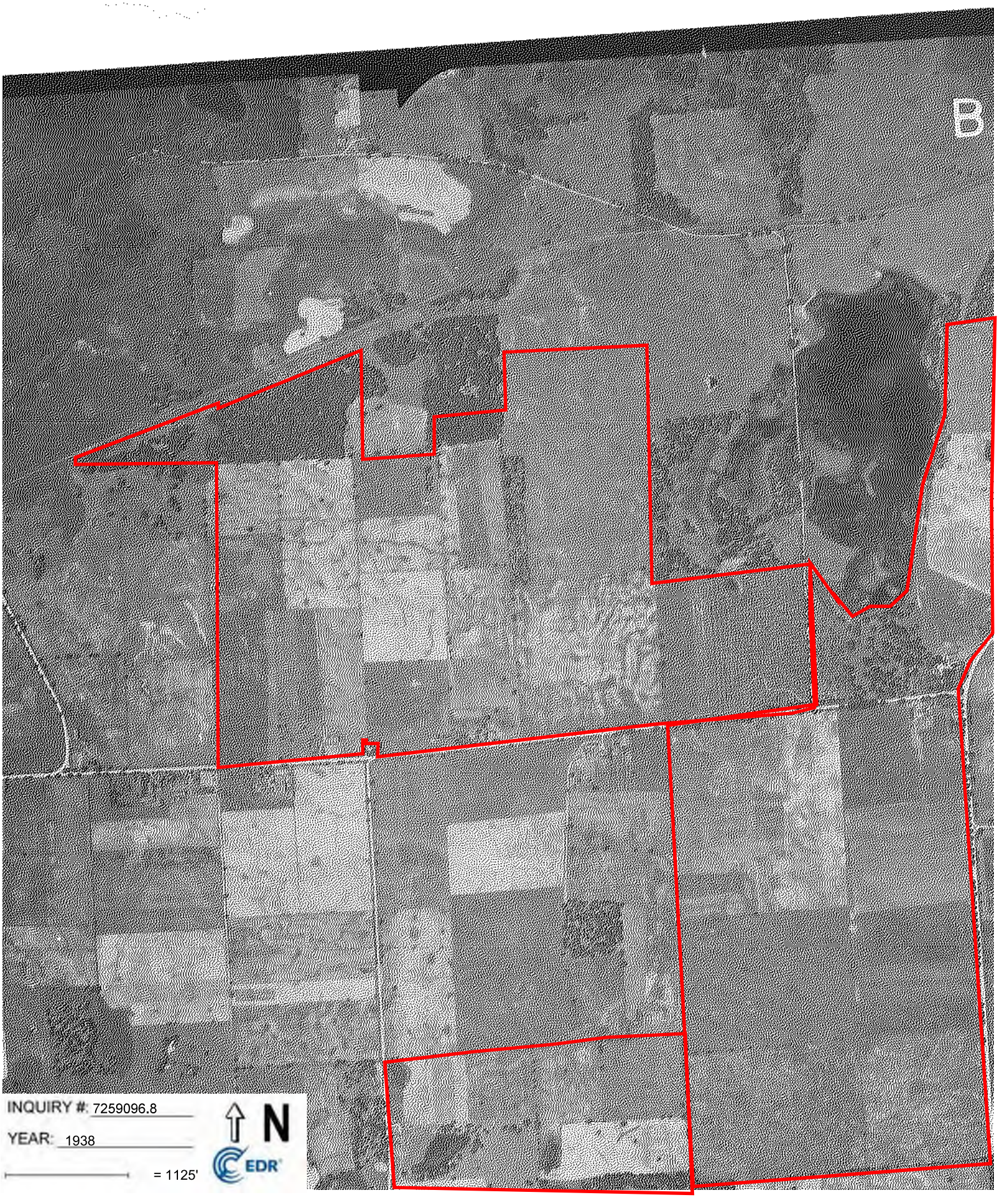
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INQUIRY #: 7259096.8
YEAR: 1938
= 1125'
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EDR

14760 HORNING RD

14760 HORNING RD

BROOKLYN, MI 49230

Inquiry Number: 7267805.8

March 06, 2023

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

03/06/23

Site Name:

14760 HORNING RD
14760 HORNING RD
BROOKLYN, MI 49230
EDR Inquiry # 7267805.8

Client Name:

Applied Science & Technology
10448 Citation Drive
Brighton, MI 48116
Contact: Aliya Spotts

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Search Results:

Year	*Scale*	*Details*	*Source*
2020	1"=1000'	Flight Year: 2020	USDA/NAIP
2016	1"=1000'	Flight Year: 2016	USDA/NAIP
2012	1"=1000'	Flight Year: 2012	USDA/NAIP
2009	1"=1000'	Flight Year: 2009	USDA/NAIP
2006	1"=1000'	Flight Year: 2006	USDA/NAIP
1998	1"=1000'	Acquisition Date: April 23, 1998	USGS/DOQQ
1987	1"=1000'	Flight Date: June 05, 1987	USDA
1981	1"=1000'	Flight Date: May 03, 1981	USDA
1979	1"=1000'	Flight Date: September 20, 1979	USDA
1969	1"=1000'	Flight Date: January 01, 1969	USGS
1956	1"=1000'	Flight Date: January 01, 1956	USGS
1952	1"=1000'	Flight Date: January 01, 1952	USGS
1940	1"=1000'	Flight Date: October 10, 1940	USDA
1938	1"=1000'	Flight Date: July 03, 1938	USDA

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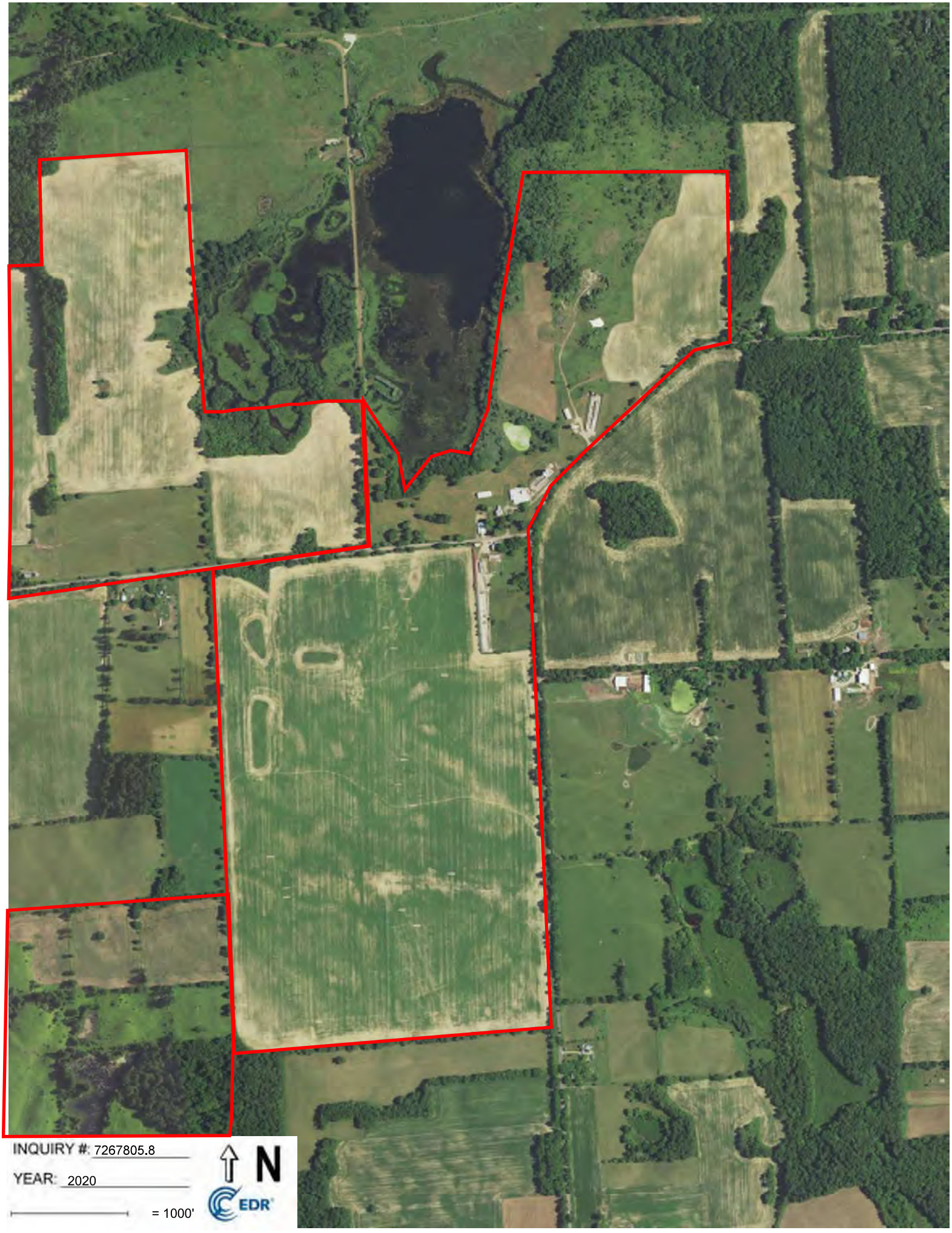
INQUIRY #: 7267805.8
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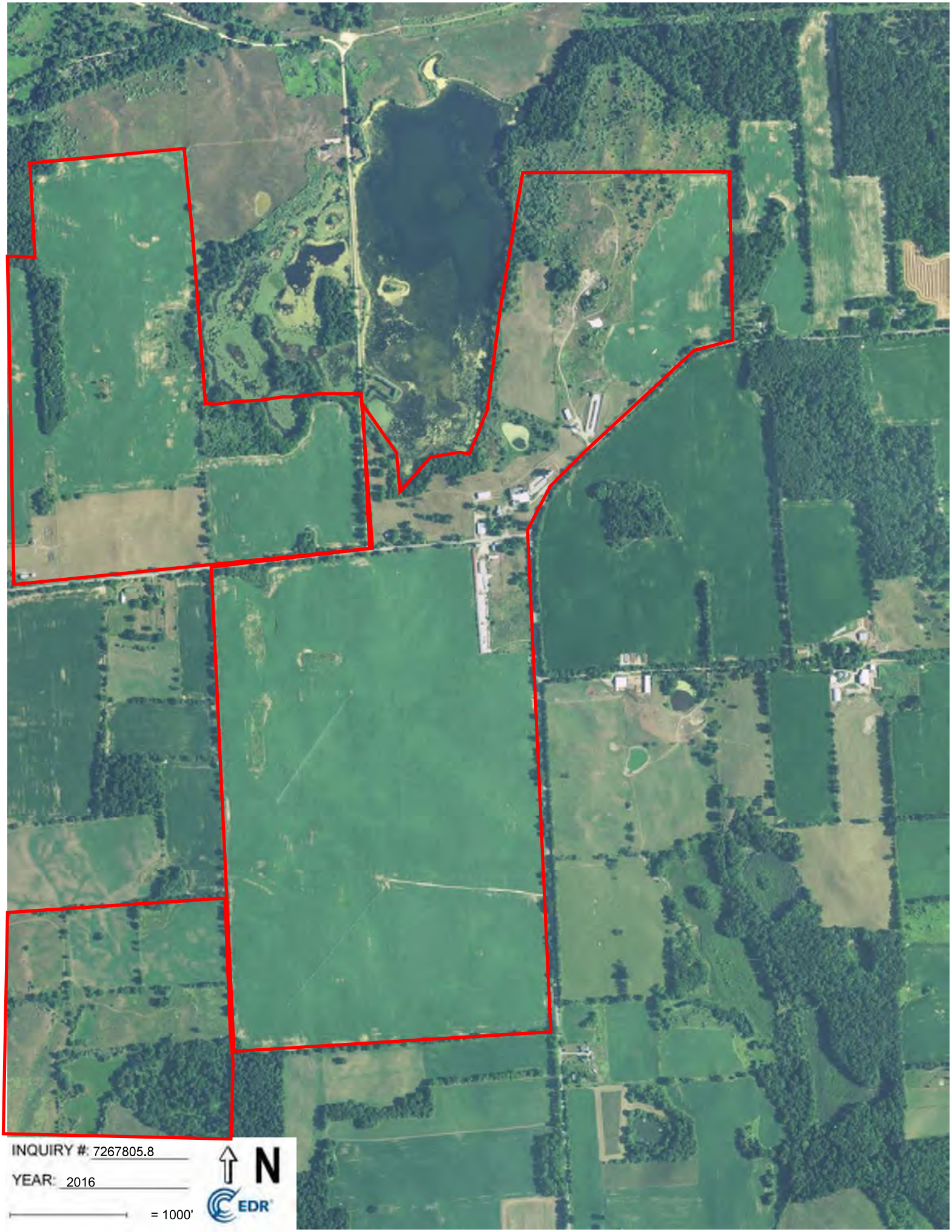
EDR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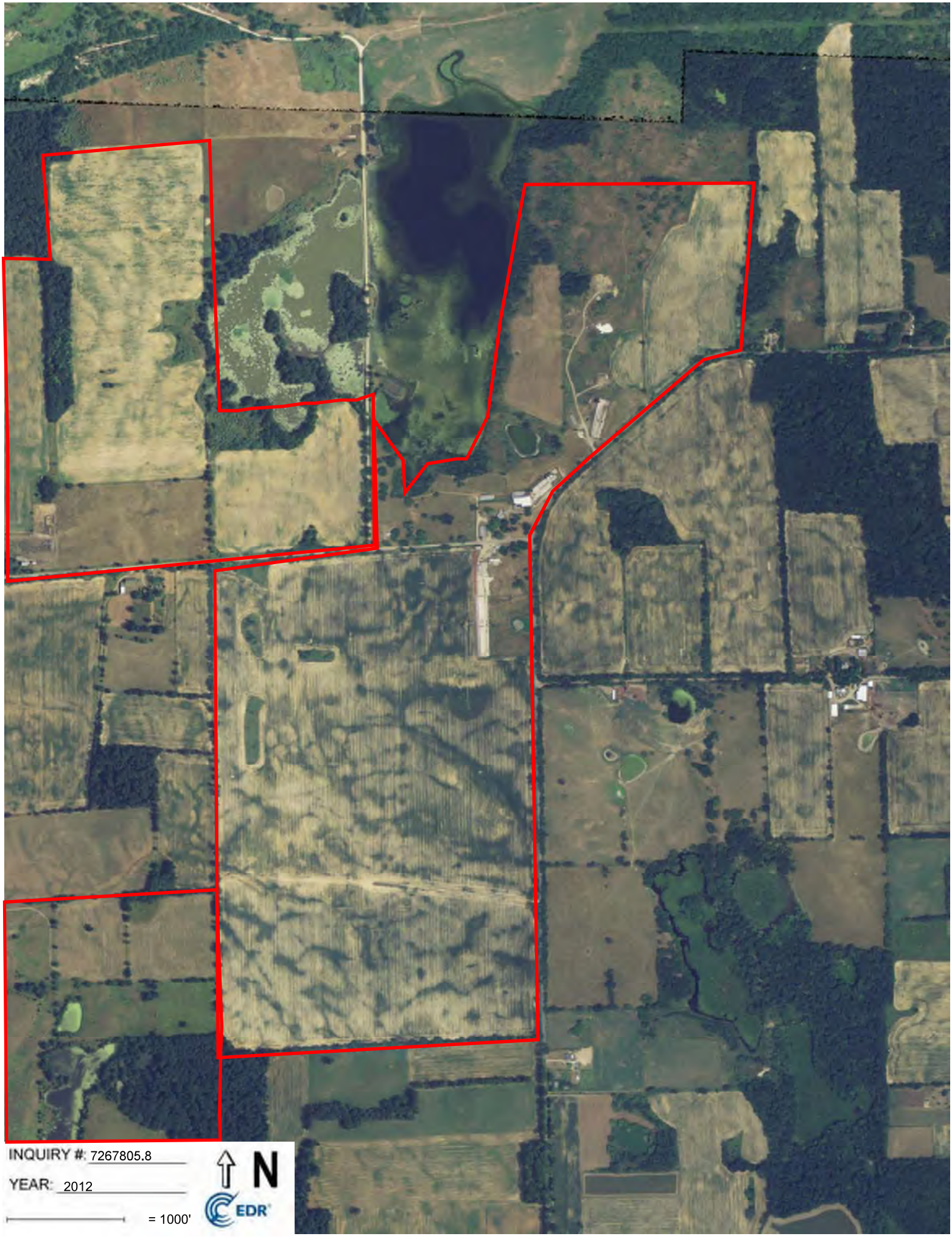
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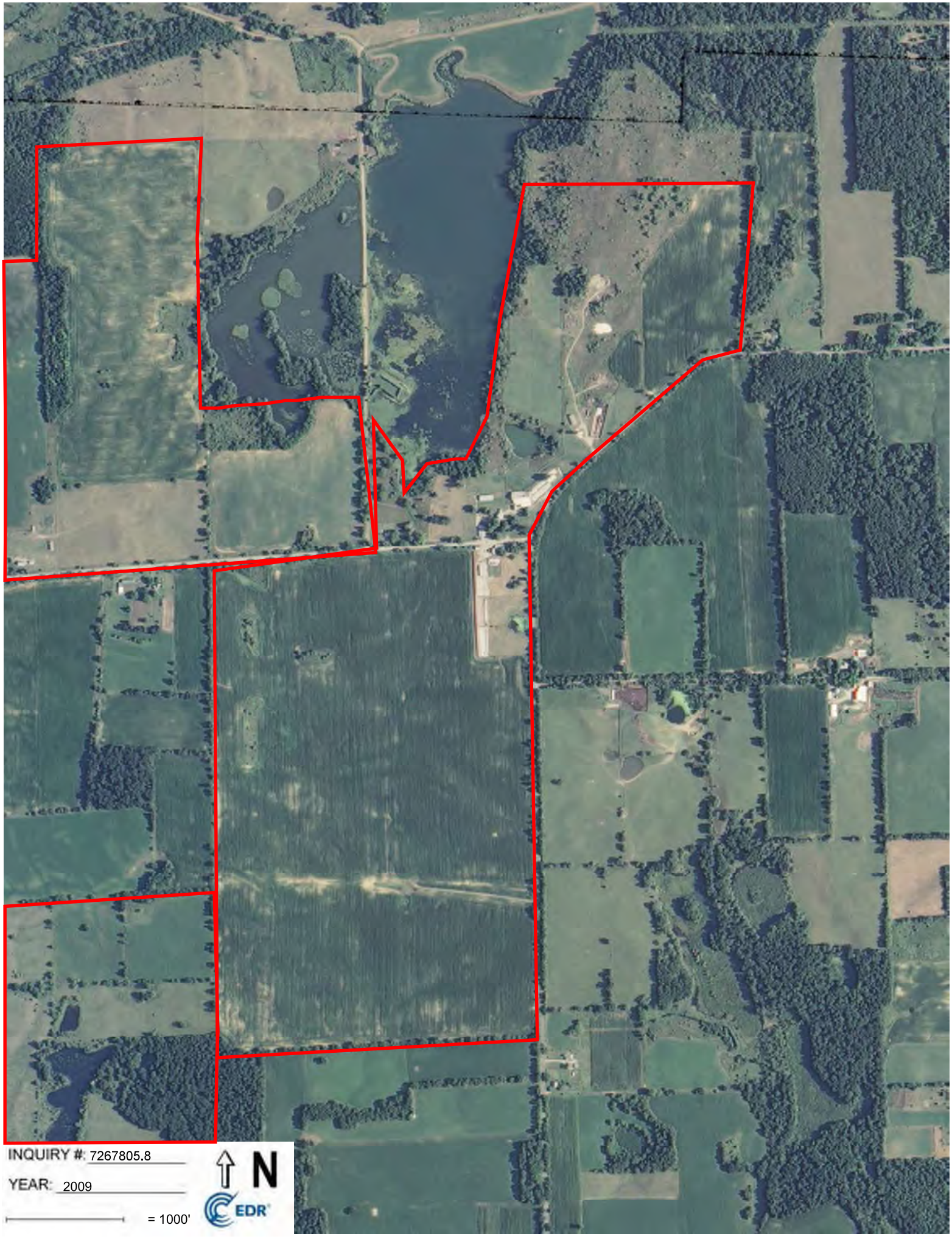
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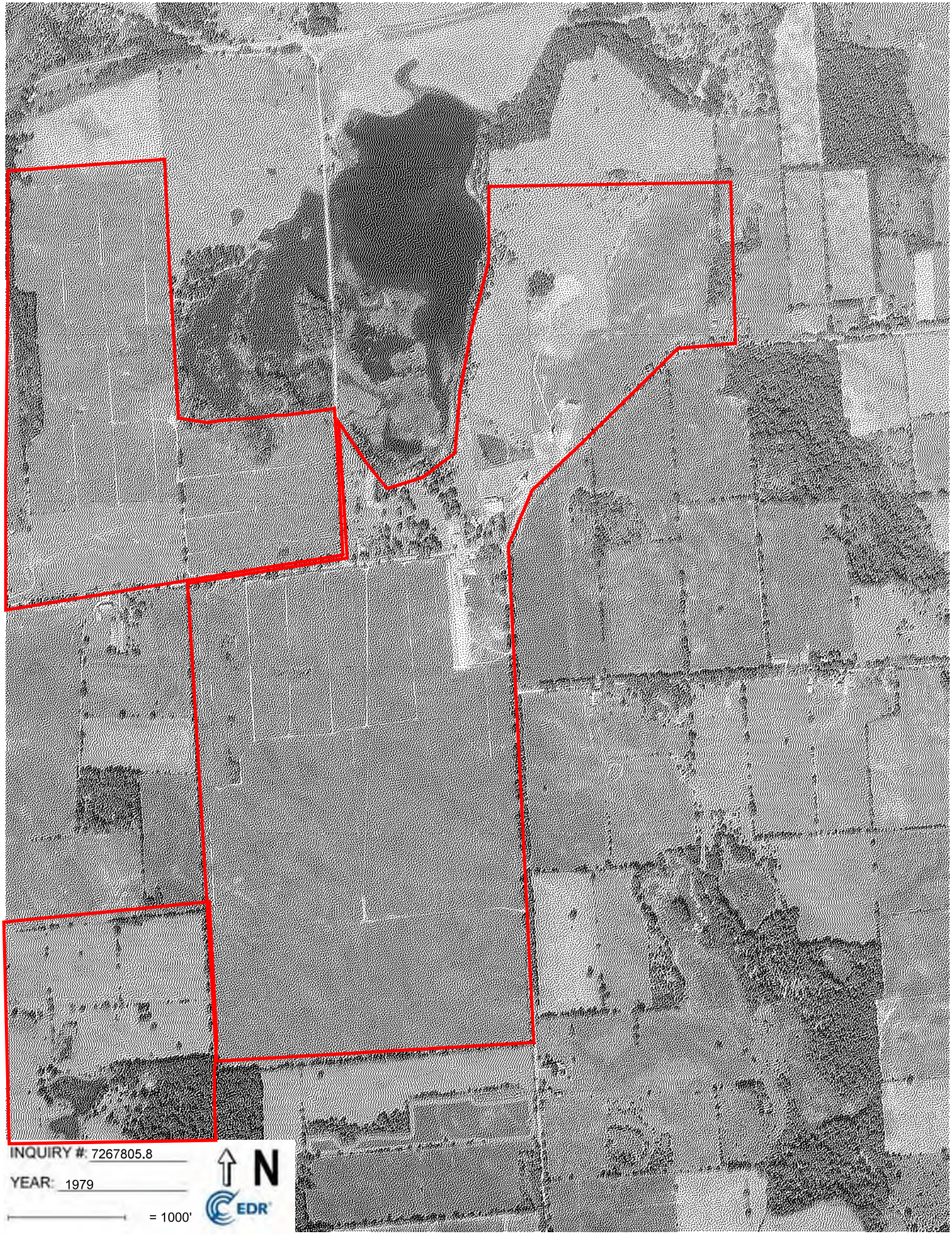
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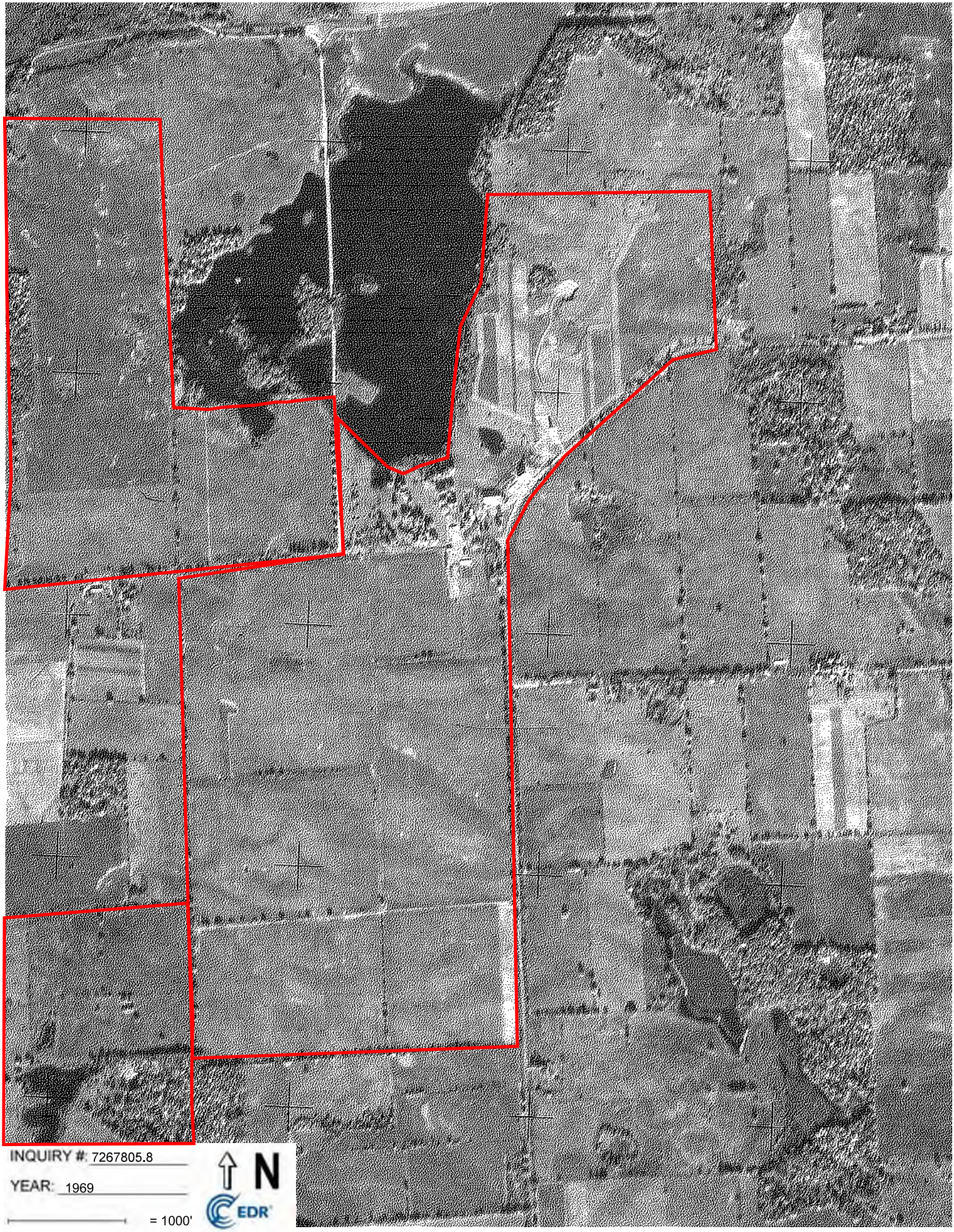
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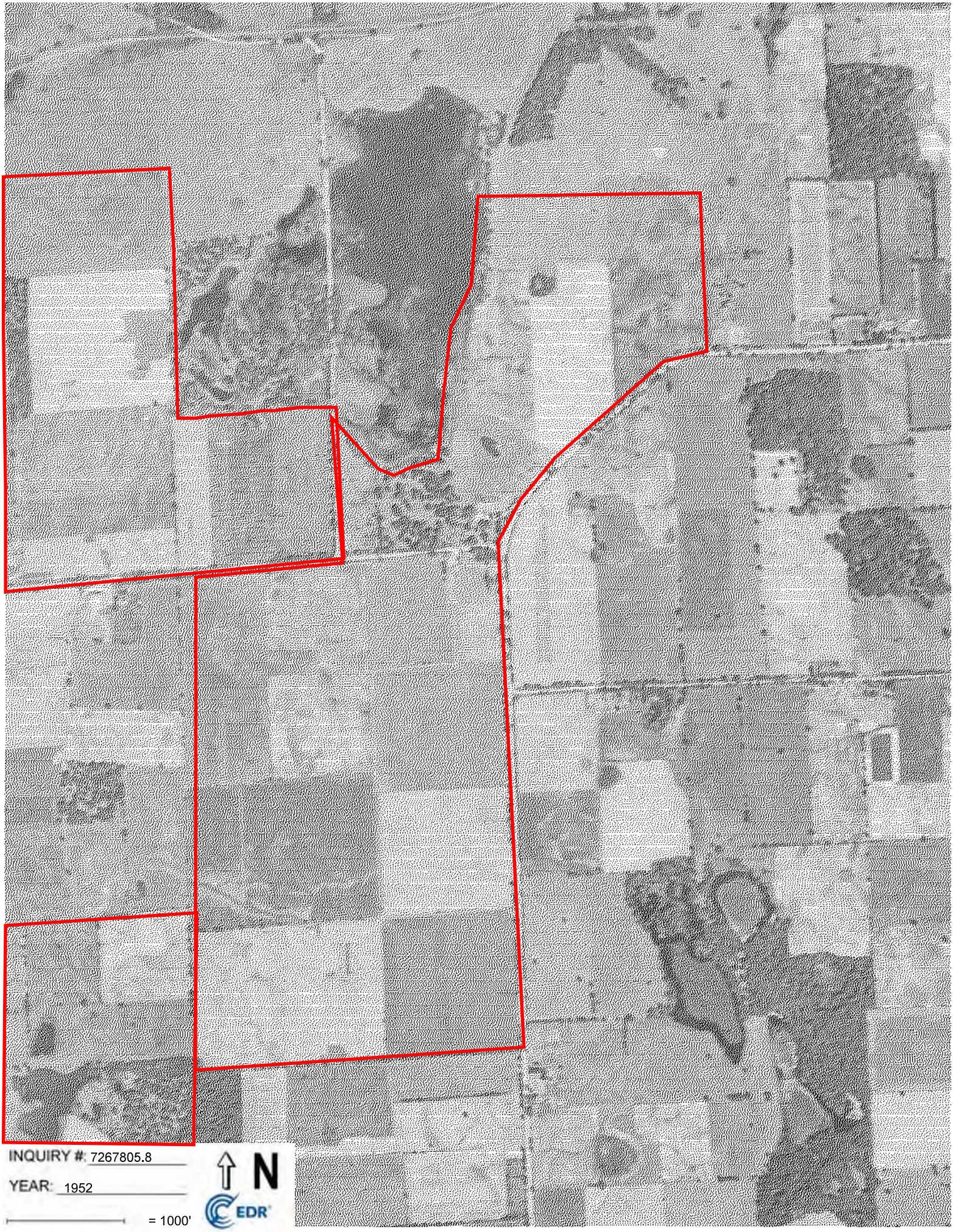
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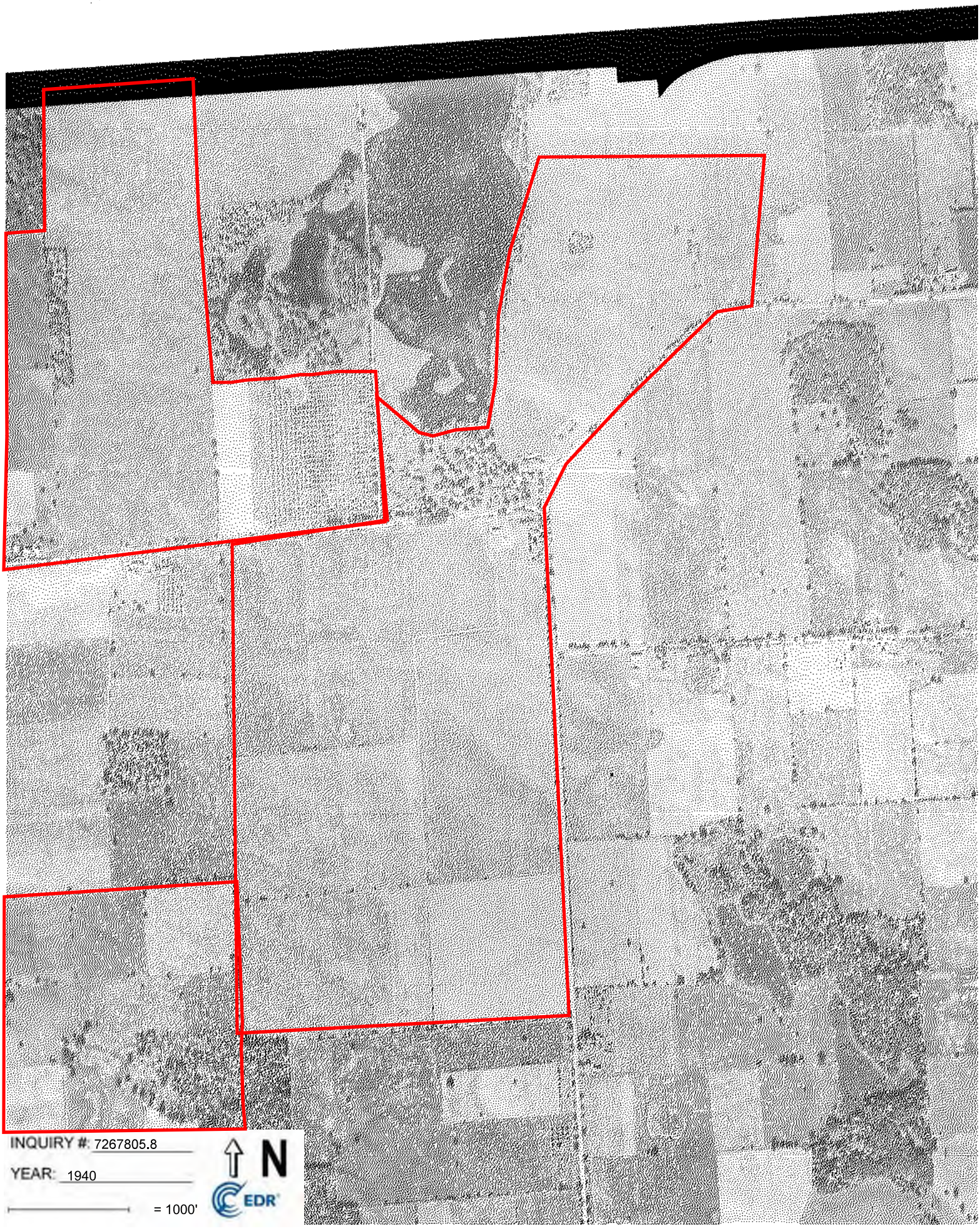
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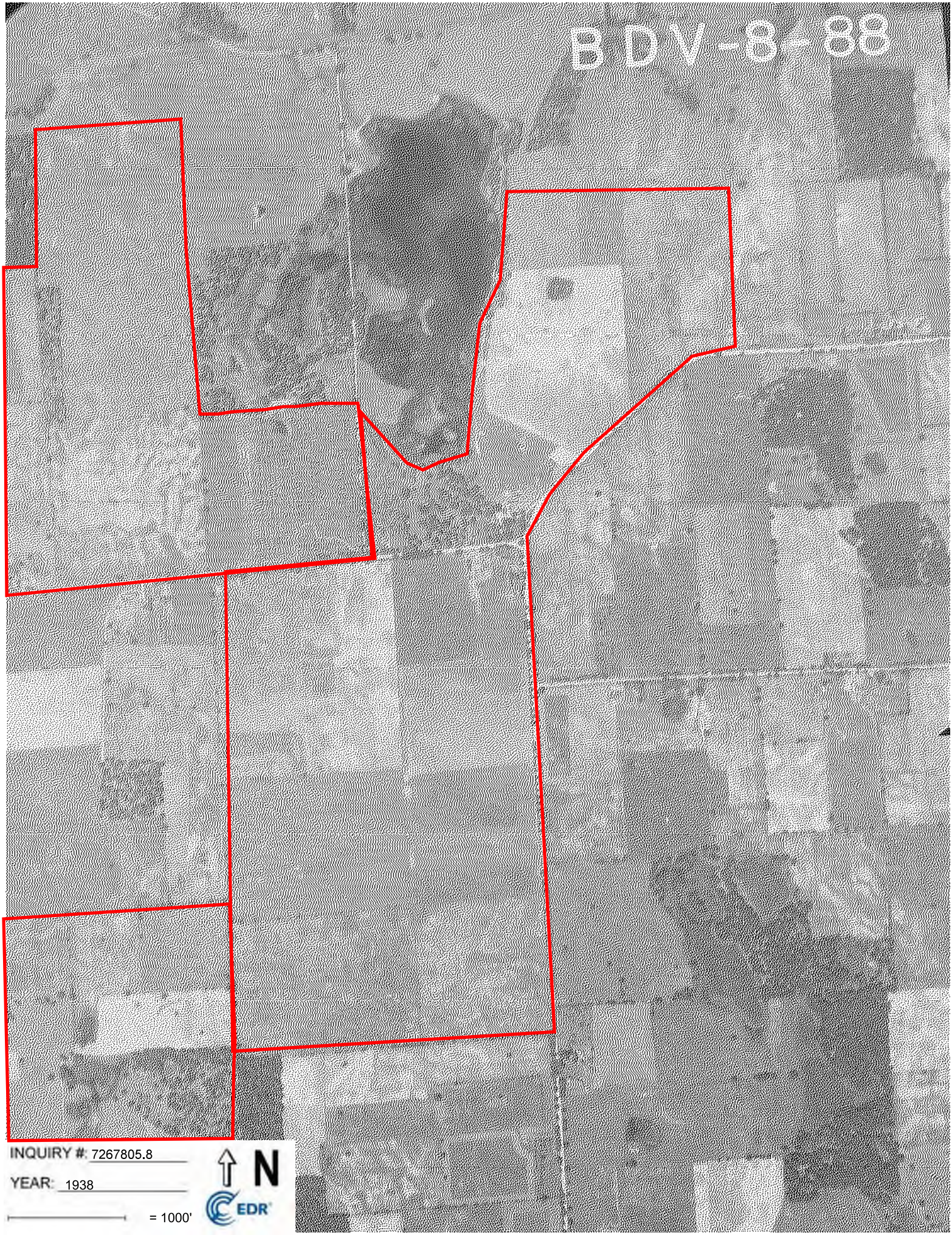
EDR


BDV-8-88
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YEAR: 1938
= 1000'
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EDR

Not Reported

Not Reported

BROOKLYN, MI 49230

Inquiry Number: 7259064.8

February 24, 2023

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

02/24/23

Site Name:

Not Reported
Not Reported
BROOKLYN, MI 49230
EDR Inquiry # 7259064.8

Client Name:

Applied Science & Technology
10448 Citation Drive
Brighton, MI 48116
Contact: Laura Gray

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2009	1"=625'	Flight Year: 2009	USDA/NAIP
2006	1"=625'	Flight Year: 2006	USDA/NAIP
1998	1"=625'	Acquisition Date: April 23, 1998	USGS/DOQQ
1987	1"=625'	Flight Date: June 05, 1987	USDA
1981	1"=625'	Flight Date: May 03, 1981	USDA
1979	1"=625'	Flight Date: September 20, 1979	USDA
1964	1"=625'	Flight Date: January 01, 1964	USGS
1952	1"=625'	Flight Date: January 01, 1952	USGS
1940	1"=625'	Flight Date: October 10, 1940	USDA
1938	1"=625'	Flight Date: July 03, 1938	USDA

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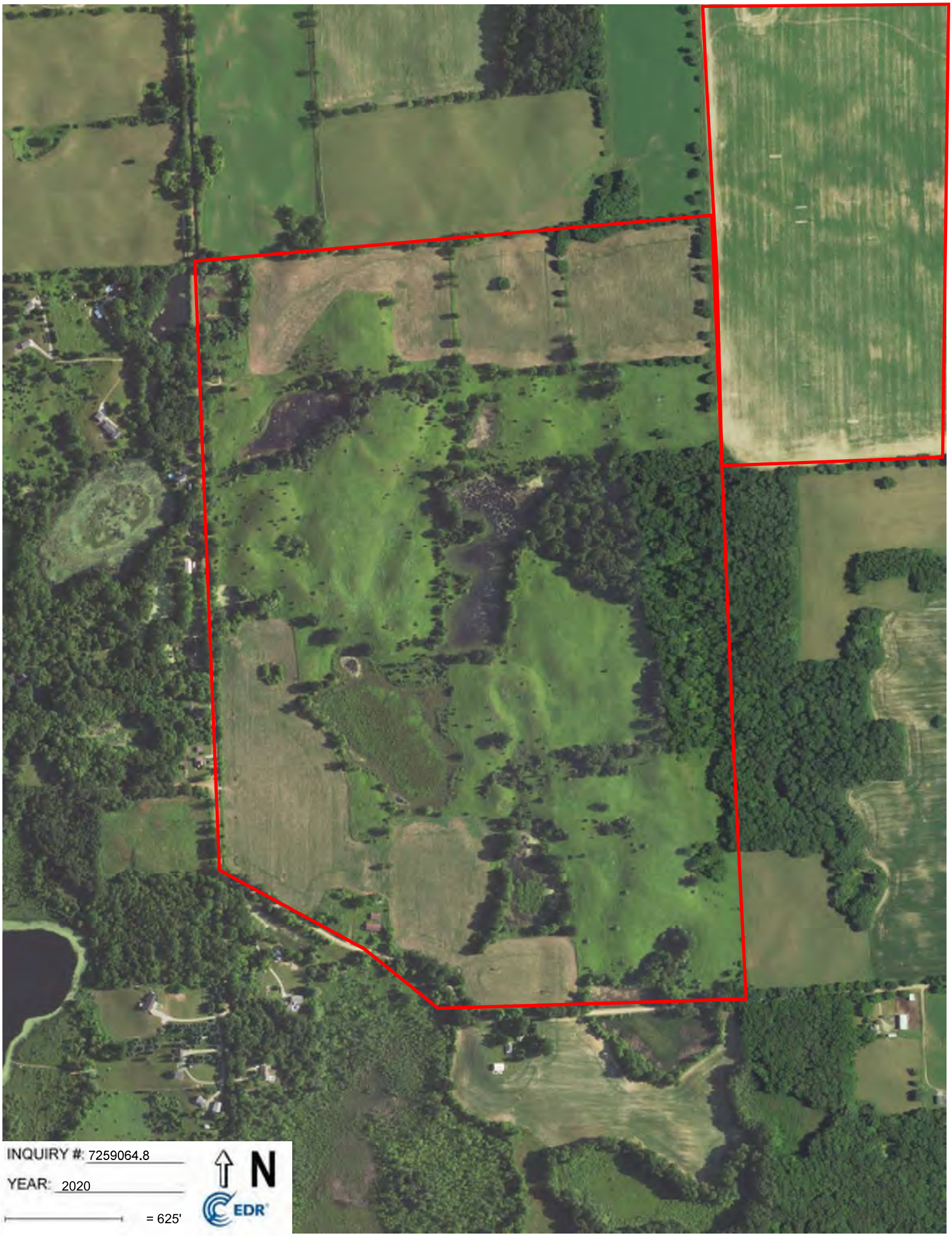
INQUIRY #: 7259064.8
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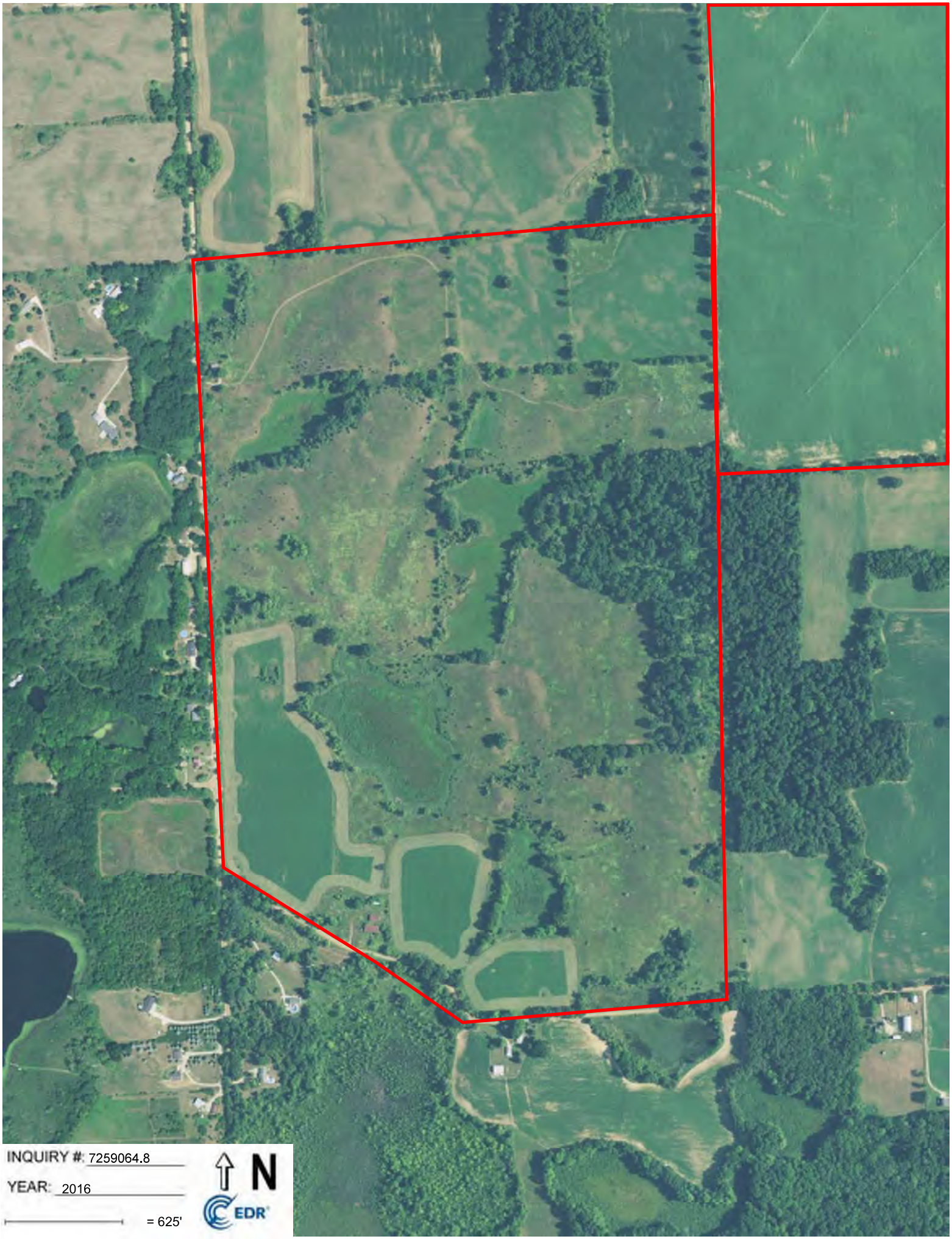
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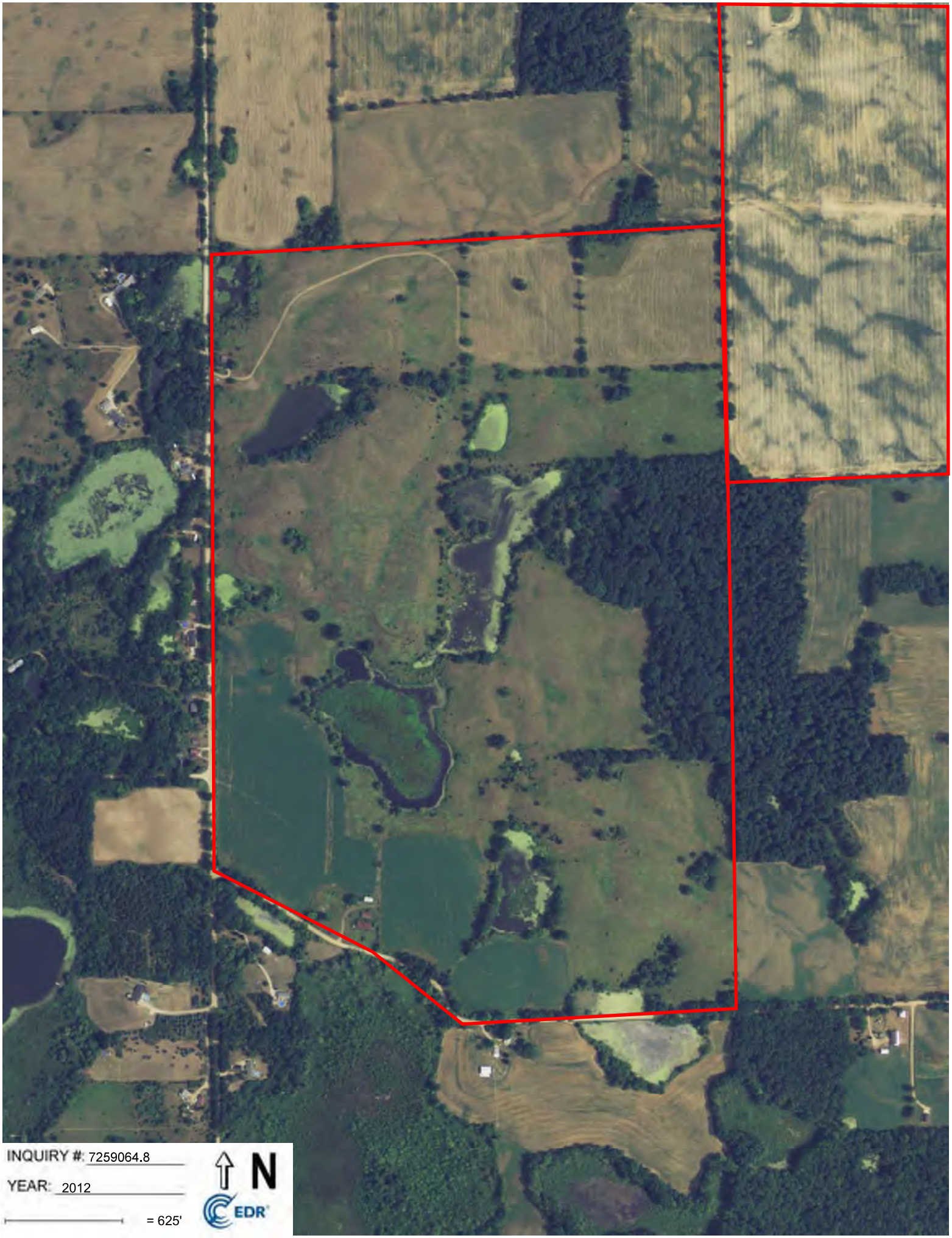
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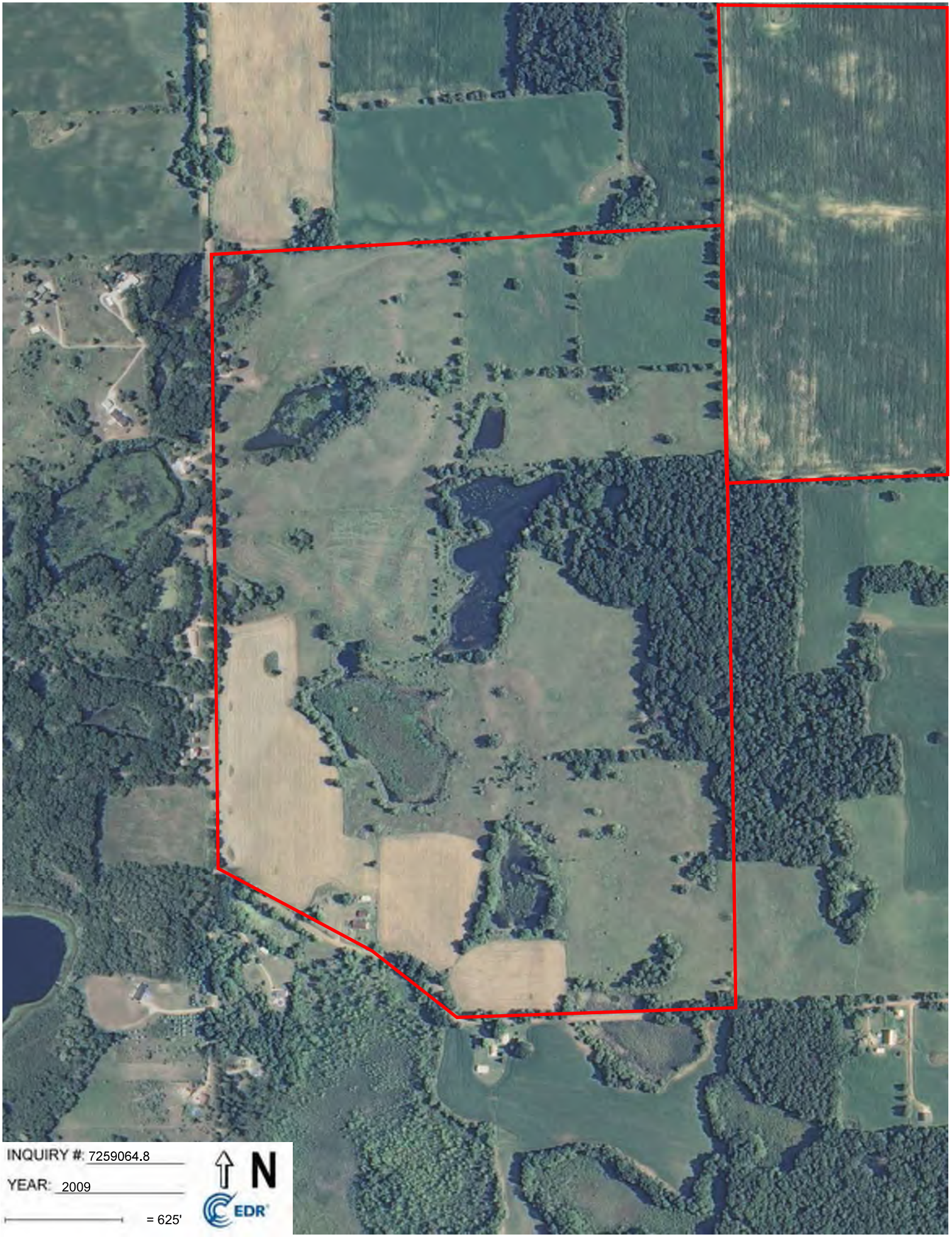
EDR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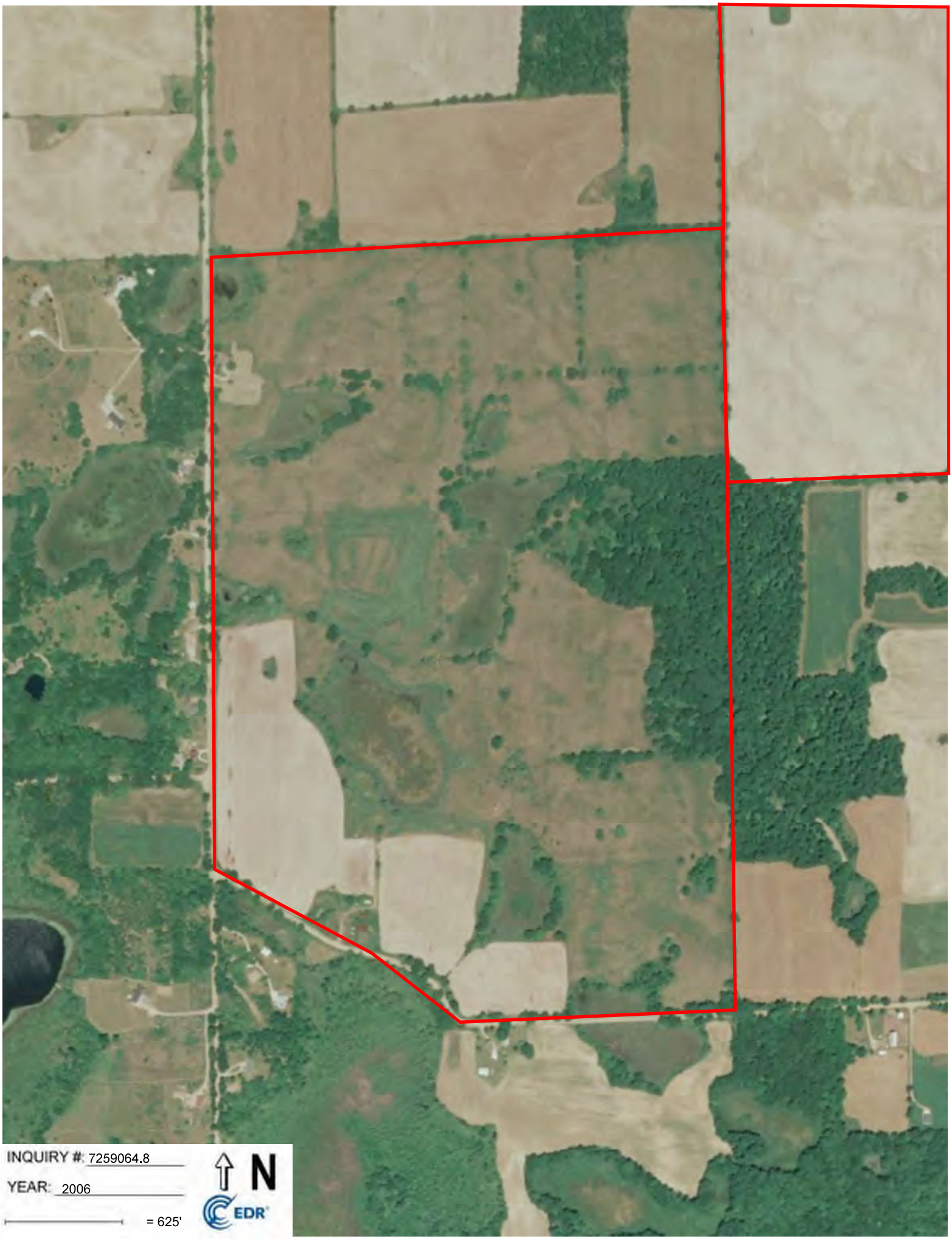
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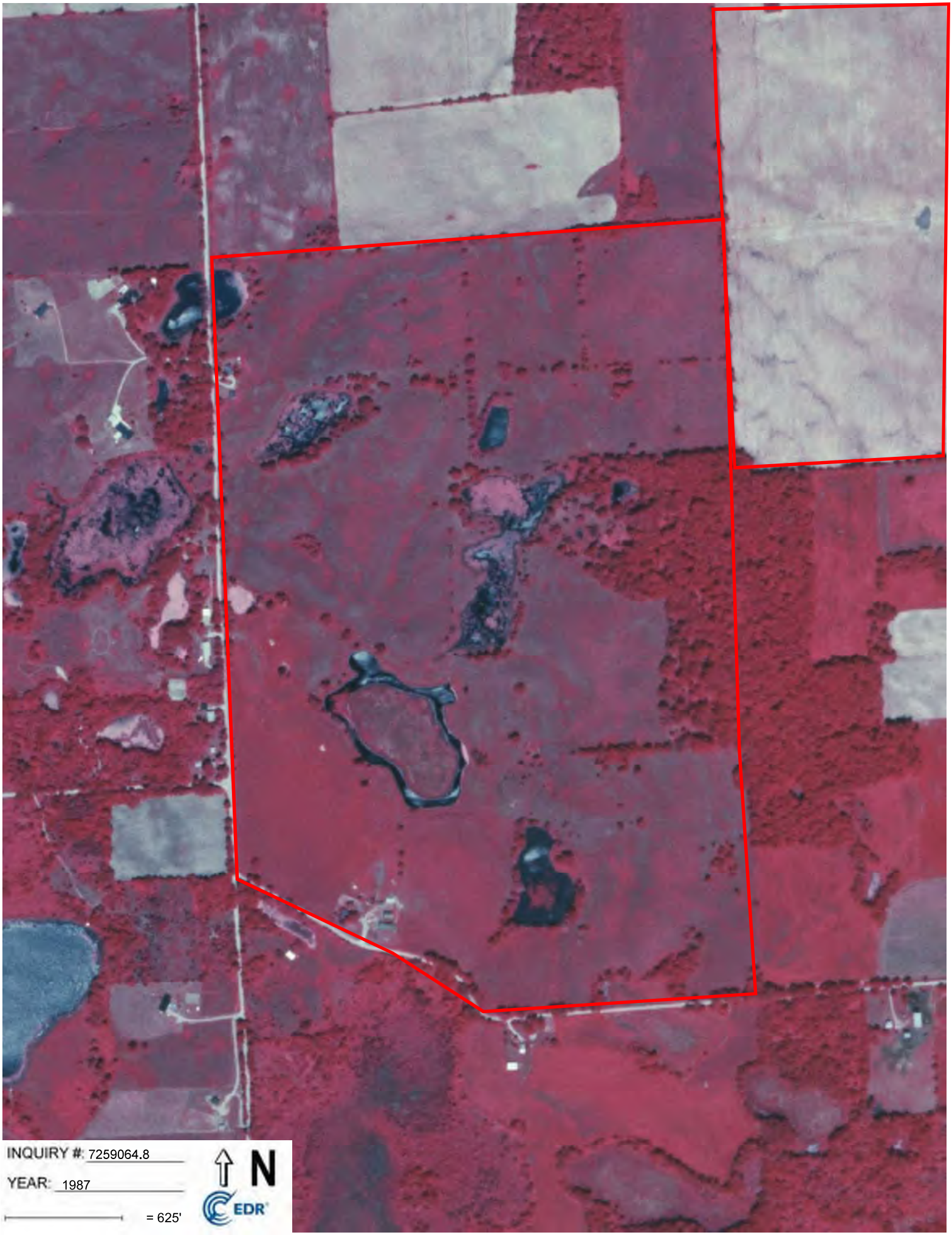
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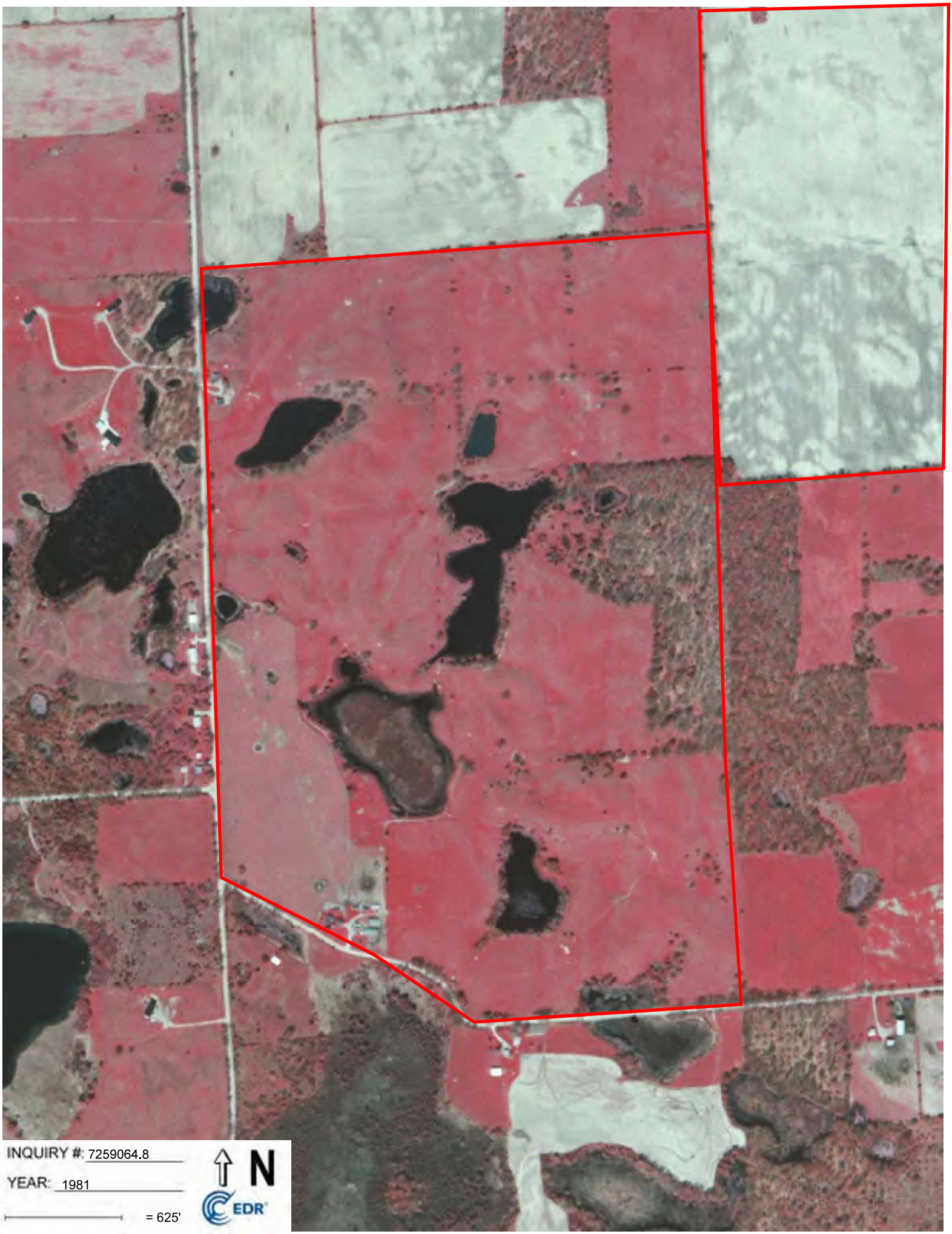
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EDR

INQUIRY #: 7259064.8
YEAR: 1979
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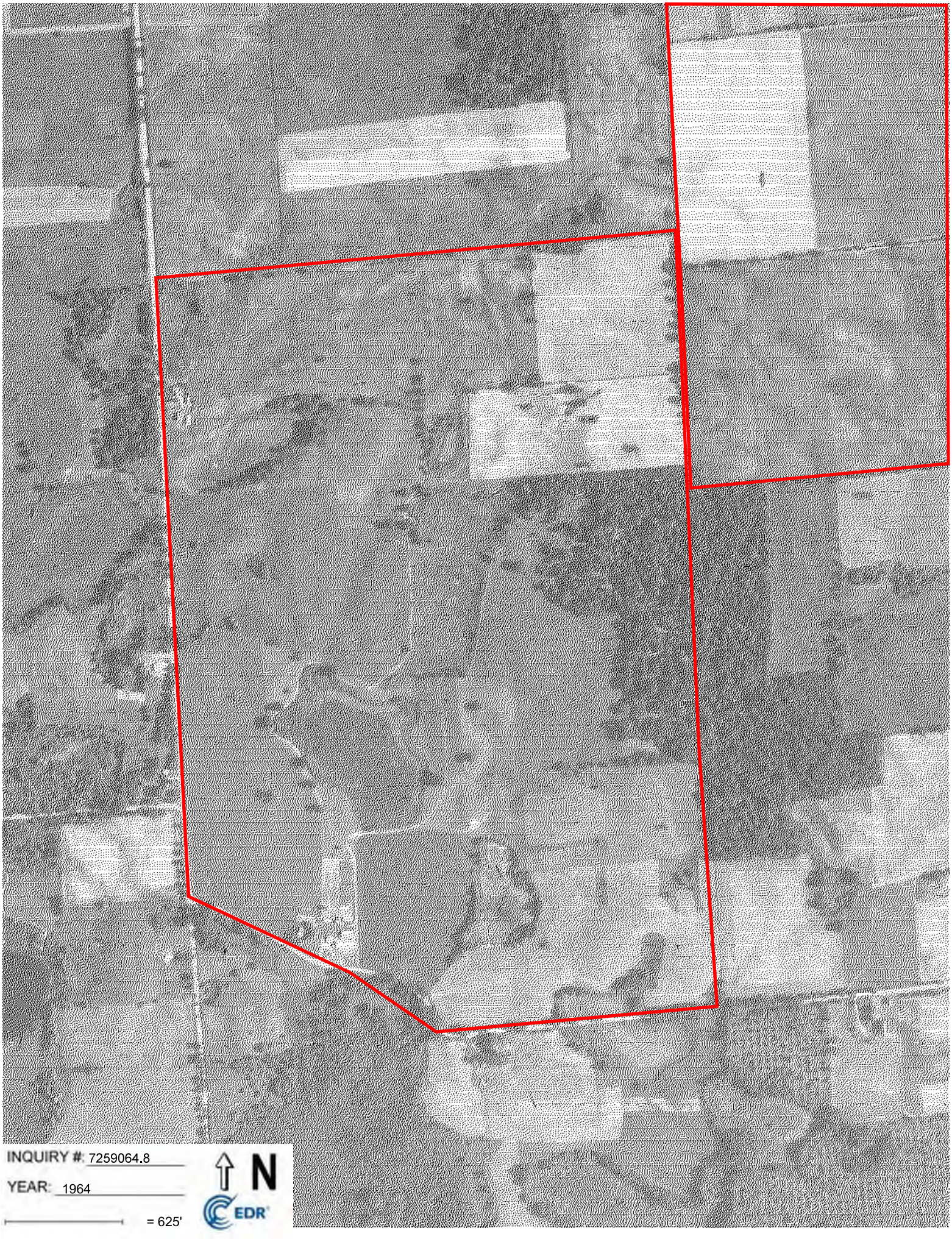
EDR


INQUIRY #: 7259064.8
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EDR

INQUIRY #: 7259064.8
YEAR: 1952
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INQUIRY #: 7259064.8
YEAR: 1940
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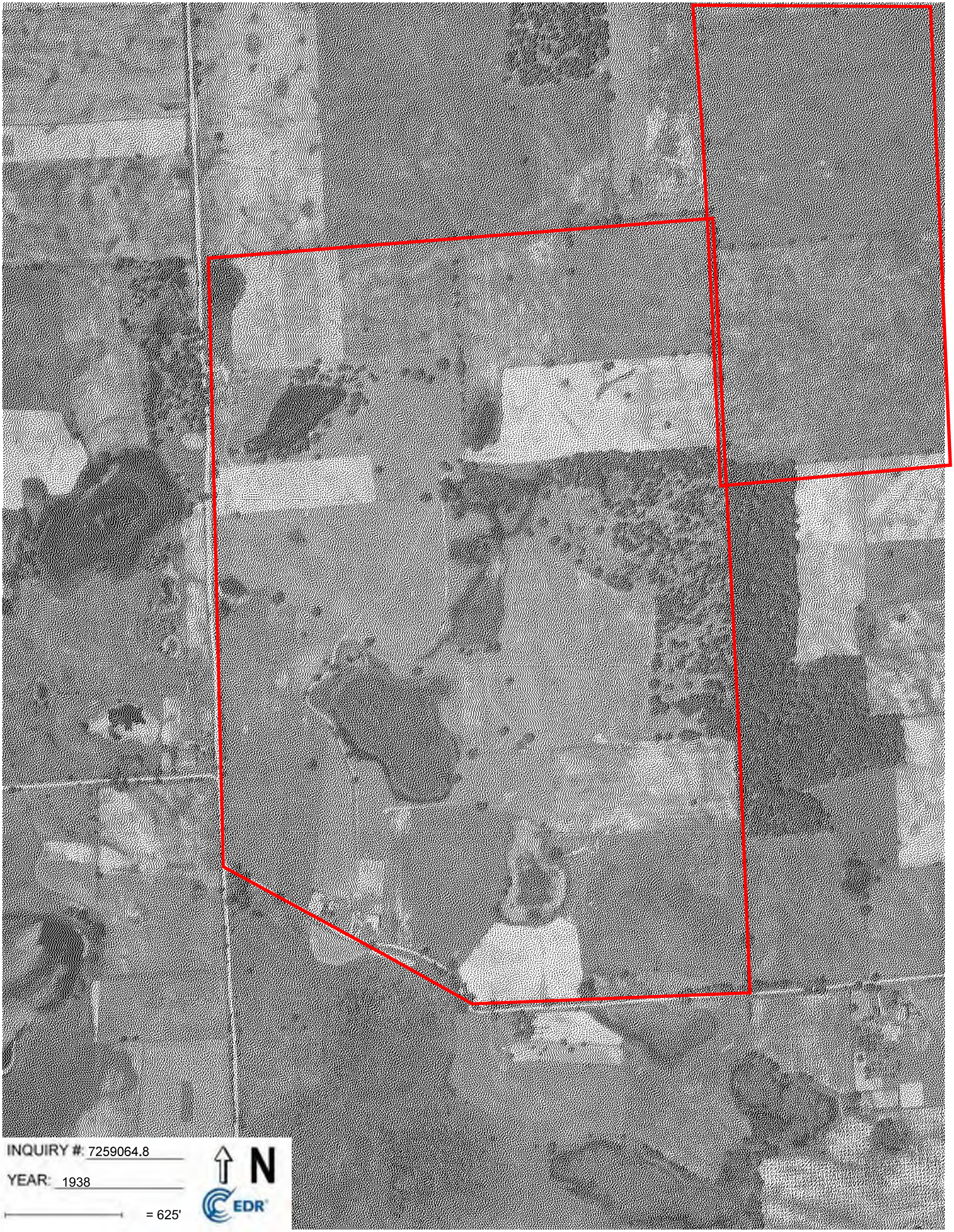
EDR


INQUIRY #: 7259064.8
YEAR: 1938
= 625'
N
EDR

14155 Austin Rd

14155 Austin Rd

BROOKLYN, MI 49230

Inquiry Number: 7760346.3

September 11, 2024

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

09/11/24

Site Name:

14155 Austin Rd
14155 Austin Rd
BROOKLYN, MI 49230
EDR Inquiry # 7760346.3

Client Name:

Applied Science & Technology
10448 Citation Drive
Brighton, MI 48116
Contact: Aliya Spotts

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Certified Sanborn Results:

Certification # 257A-4C35-96B8

PO # NA

Project A23-2691.00

UNMAPPED PROPERTY

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Sanborn® Library search results

Certification #: 257A-4C35-96B8

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- ✓ EDR Private Collection

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Not Reported

Not Reported

BROOKLYN, MI 49230

Inquiry Number: 7259096.3

February 21, 2023

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

02/21/23

Site Name:

Not Reported
Not Reported
BROOKLYN, MI 49230
EDR Inquiry # 7259096.3

Client Name:

Applied Science & Technology
10448 Citation Drive
Brighton, MI 48116
Contact: Laura Gray

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Certified Sanborn Results:

Certification # 2009-4563-BD9F

PO # NA

Project 1-12691

UNMAPPED PROPERTY

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Sanborn® Library search results

Certification #: 2009-4563-BD9F

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- ✓ University Publications of America
- ✓ EDR Private Collection

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14760 HORNING RD

14760 HORNING RD

BROOKLYN, MI 49230

Inquiry Number: 7267805.3

March 02, 2023

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

03/02/23

Site Name:

14760 HORNING RD
14760 HORNING RD
BROOKLYN, MI 49230
EDR Inquiry # 7267805.3

Client Name:

Applied Science & Technology
10448 Citation Drive
Brighton, MI 48116
Contact: Aliya Spotts

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Certified Sanborn Results:

Certification # 8A66-46DD-974F

PO # NA

Project 1-12691

UNMAPPED PROPERTY

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Sanborn® Library search results

Certification #: 8A66-46DD-974F

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- ✓ Library of Congress
- ✓ University Publications of America
- ✓ EDR Private Collection

The Sanborn Library LLC Since 1866™

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Not Reported

Not Reported

BROOKLYN, MI 49230

Inquiry Number: 7259064.3

February 21, 2023

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

02/21/23

Site Name:	Client Name:
Not Reported	Applied Science & Technology
Not Reported	10448 Citation Drive
BROOKLYN, MI 49230	Brighton, MI 48116
EDR Inquiry # 7259064.3	Contact: Laura Gray

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Certification # 0BB9-49E6-ADEF

PO # NA

Project 1-12691

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- ✓ Library of Congress
- ✓ University Publications of America
- ✓ EDR Private Collection

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14155 Austin Rd
14155 Austin Rd
BROOKLYN, MI 49230

Inquiry Number: 7760346.5
September 17, 2024

The EDR-City Directory Image Report

EDR® Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available business directory data at approximately five year intervals.

RECORD SOURCES

The EDR City Directory Report accesses a variety of business directory sources, including Haines, InfoUSA, Polk, Cole, Bresser, and Stewart. Listings marked as EDR Digital Archive access Cole and InfoUSA records. The various directory sources enhance and complement each other to provide a more thorough and accurate report.

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	*Target Street*	*Cross Street*	*Source*
2020	☑	☐	EDR Digital Archive
2017	☑	☐	Cole Information
2014	☑	☐	Cole Information
2010	☑	☐	Cole Information
2005	☑	☐	Cole Information
2000	☑	☐	Cole Information
1995	☑	☐	Cole Information
1992	☑	☐	Cole Information
1987	☑	☐	Bresser's Cross-Index Directory Company
1983	☑	☐	Bresser's Cross-Index Directory Company
1982	☑	☐	Bresser's Cross-Index Directory Company
1977	☑	☐	Bresser's Cross-Index Directory Company
1972	☑	☐	Bresser's Cross-Index Directory Company
1967	☑	☐	Bresser's Cross-Index Directory Company

FINDINGS

TARGET PROPERTY STREET

14155 Austin Rd
BROOKLYN, MI 49230

Year	*CD Image*	*Source*	
AUSTIN RD			
2020	pg A2	EDR Digital Archive	
2017	pg A8	Cole Information	
2014	pg A11	Cole Information	
2010	pg A15	Cole Information	
2005	pg A18	Cole Information	
2000	pg A22	Cole Information	
1995	pg A24	Cole Information	
1992	pg A27	Cole Information	
1987	pg A29	Bresser's Cross-Index Directory Company	
1983	pg A31	Bresser's Cross-Index Directory Company	
1977	pg A33	Bresser's Cross-Index Directory Company	
1972	pg A35	Bresser's Cross-Index Directory Company	
1967	-	Bresser's Cross-Index Directory Company	Street not listed in Source
W AUSTIN RD			
2020	pg A6	EDR Digital Archive	
2017	pg A10	Cole Information	
2014	pg A13	Cole Information	
2010	pg A17	Cole Information	
2005	pg A20	Cole Information	
2000	pg A23	Cole Information	
1995	pg A25	Cole Information	
1992	pg A28	Cole Information	
1987	pg A30	Bresser's Cross-Index Directory Company	
1982	pg A32	Bresser's Cross-Index Directory Company	
1977	pg A34	Bresser's Cross-Index Directory Company	
1972	pg A36	Bresser's Cross-Index Directory Company	

FINDINGS

Year	*CD Image*	*Source*
1967	pg A37	Bresser's Cross-Index Directory Company

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

AUSTIN RD 2020

10700	Homer Root
	John Carpenter
	Lee Davis
	Stephen Davis
	Tiffany Carpenter
10791	Doug Schatz
	Jeremiah Andrus
	Jessica Andrus
	Kerri Andrus
	Kerri Schatz
	Nicole Schatz
10811	Brittnii Rittinger
	Daniel Rittinger
10990	Dennis Curtis
	Dianne Curtis
11211	Jeffrey Curtis
	Terri Curtis
11365	Adis Alfonso-Batista
	Larry Wild
	Luis Alfonso-Batista
11371	Erica Cantor
	Evan Cantor
	Julie Cantor
	Susan McCullough
11374	Tracy Burkholder
11384	David Kies
11385	Jacob Miller
	Kayla Walz
11388	Arline Miekos
	Linda Conley
11400	Gerald Porter
	Patsy Porter
	Stanley Tarrow
11401	David Ostrander
	David Styx
	Denise Styx
	Dharma Styx
	Toni Godfrey
11411	Katherine Borin
	Robert Borin
11451	Andrew Haystead
	Harold Haystead
	HAYSTEAD FARM LLC
	Joleen Haystead
11467	Avis Wolfe
	Clarence Wolfe
	Ethan Trudeau
	Karen Trudeau
	Thomas Trudeau
	Trevor Trudeau

AUSTIN RD 2020 (Cont'd)

11700	Darrell Blakeman
	Nila Blakeman
11711	Judith Tefft
	Robert Tefft
11716	Danny Hulburt
11720	Jeremy Clore
	Kimberly Clore
	Ronald Marecle
11725	James MacDonald
	Jessica MacDonald
	Pauline MacDonald
11750	Bette McCallum
	Emma Kramer
	Marvin Jester
	Nick Kermans
	Paula Jester
	Robin Kermans
11775	Kyle Moore
	Melissa Moore
	Scott Moore
11890	Brenna Lepper
	Doris Lepper
	Edward Lepper
	Holly Lepper
	Jacob Lepper
	Kevin Lepper
	Lonnie Lepper
11899	Scarlet Turvey
	Timothy Turvey
	Troy Turvey
11917	Bradley Steusloff
	Julie Grifka
11920	Bryan Duvall
	Carrie Duvall
11925	Gabriel Howland
	Haggen Howland
	Jennifer Howland
	Raymond Howland
11930	Anderson Andy
	Jessica Anderson
11946	Deborah Barrett
	Michael Barrett
11958	Devin Brent
	Frederick Brent
	Misuk Brent
	Shawn Murphy
12048	Giovanni Infantino
	Mikayla Jennings
	Susan Jennings
12051	Beth Ambler

AUSTIN RD 2020 (Cont'd)

12051	Reed Ambler
12056	Anthony Prestia
	Laurene Prestia
	Lori Prestia
	Richard Prestia
	Sarah Prestia
12365	Charlie Miller
	Jackie Miller
12383	Ashley Mazur
	Gregory Lindahl
	Ivan Warner
	Sandra Lindahl
12620	Julie Emanuelson
	Sharon Fischer-Deconick
12723	Cherie Walden
	Christopher Brown
	Cody Williams
	Dennis Walden
	Stephanie Vanvleet
	Terry Celske
	Troy Walden
12810	Steven Wellman
12886	Jeri Barth
	Perry Haag
12971	Angela Elliott
13002	Donald Kohlstrand
	Victoria Kohlstrand
13150	Randal Hawkinson
13412	Howard McMullen
	Nettie McMullen
13413	Sharon Hall
13428	Christopher Anderson
	Maxine Anderson
13484	Allissia Byle
	David Assenmacher
13491	Nancy Beiser
13601	John Easterly
	Sarah Allen
	Sharon Easterly
	Thomas Ellis
13632	Kathleen Casey
	Robert Howlett
13680	Jason Throne
	Joel Lawrence
	Kathleen Hermiller
	Rex Throne
	Trina Bussinger
	Trina Throne
13734	Denise Balinski
13961	Christina Elkins

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

AUSTIN RD 2020 (Cont'd)

13961	Leeann March
	Mary Ross
	Sarah Hinderer
	Stephen Hinderer
14155	Curtis Booker
	Kathy Fritz
	Penny Brackney
14182	Bonnie Padley
	Matthew Padley
	Timothy John
14250	Robert Lacy
	Tamrah Lacy
14260	Michael Helfrich

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

W AUSTIN RD 2020

14282	Colleen Kemner
	John Kemner
	Matthew Kemner
14321	Erleen Clark
	Gerard Clark
	Kay Erleen
14341	Bry Duvall
	Marlo Ives
	Steven Duvall
14610	Darald Degroote
	Mary Degroote
14724	Jennifer Monaghan
	Jennifer Walls
	Morgan Monaghan
	Nicholas Lyos
	Russell Maurer
	Wade Walls
14800	Kosti Karll
	Nicole Karll
15100	Barbara Crites
15135	Kenneth Simin
	Stephen Searl
15394	Grant Reiff
	Lisa Reiff
15402	Broecker Kozakiewicz
	David Kozakiewicz
	Nicole Stott
15406	Christina Waugh
	Matthew Waugh
15521	Kristie Litwin
	Lewis Litwin
15867	Brian King
	Demie King
	Venita Harrell
15999	Diane Maurer
16160	Keith Dezwaan
	Teri Dezwaan
16521	Lori Stafford
	Nancy Nine
	Timothy Nine
16530	Kimberly Edgerly
	Raymond Edgerly
16916	June Aman
16924	Corey Brown
	Dolores Vescelious
	Shannon Brown
16991	Hailey Ahrens
	Nicole Ahrens
	Ryan Ahrens
	Sydnie Ahrens

W AUSTIN RD 2020 (Cont'd)

16991 Wanda Watson
17200 Ellen Kraftchick
17610 Joanna White
17620 Grant Harvey
Joan Harvey
Rosalyn Harvey
Tia Harvey
17951 AMI STAMPING
18000 Daisy Kelley
Daisy Ledwidge
Jeffrey Kelley
18010 Erika Stetler
Lisa Stetler
Nikolas Stetler
Richard Stetler
18020 Amanda Parsell
Joshua Parsell
18030 James Emery
18050 Caitlain Theakston
Scharpenberg Allen
18089 Carl Werner
Emily Werner
18100 Cynthia Ford
Marvin Ford
18101 Kenneth Thomas
Mary Thomas
18167 James Schook
Melissa Schook
18293 James Roberts
18352 James Gautz
Joanne Gautz
18420 Geoffrey Jeal
Lesley Jeal
18424 Lb Hilbert
Leeburke Hilbert
18481 Angela Fuller
MANCHESTER TOWING
18558 MANCHESTER VETERINARY CLINIC
18600 Arthur Beaudoin
Elizabeth Beaudoin
Elizabeth Cutler
Marie Beaudoin
18875 MANCHESTER FEED & SUPPLY
U-HAUL NEIGHBORHOOD DEALER
Veronica Martin
18879 Jeffrey Mann
Rebecca Mann

Target Street	Cross Street	Source
✓	-	Cole Information

AUSTIN RD 2017

10700	DAVIS, STEPHEN A
10791	SCHATZ, DOUGLAS A
10807	LOOMIS, ALLAN D
10990	CURTIS, DENNIS L
11211	CURTIS, JEFFREY W
11365	WILD, LOIS M
11371	GILMORE, MARTIN
11374	BURKHOLDER, TRACY E
11385	CALICE, CARMEN J
11386	CONLEY, HAROLD D
11388	CONLEY, HAROLD D
11400	TARROW, STANLEY T
11401	STYX, DAVID W
11411	BORIN, ROBERT
11451	HAYSTEAD, HAROLD D
11467	TRUDEAU, THOMAS R
11700	BLAKEMAN, DARRELL E
11711	TEFFT, ROBERT M
11716	HULBURT, DAN B
11720	CLORE, JEREMY R
11725	CARMONEY, CARL D
11775	MOORE, SCOTT D
11890	LEPPER, LONNIE B
11899	TURVEY, TIMOTHY J
11917	GRIFKA, RONALD M
11920	DUVALL, BRYAN E
11930	ANDERSON, ANDREW L
11946	SMITH, DAVID M
11958	BRENT, DEVIN W
12048	INFANTINO, JOHN B
12051	AMBLER, REED M
12056	PRESTIA, RICHARD D
12365	MILLER, CHARLIE R
12383	MAZUR, ASHLEY
12579	BARTH, SARAH J
12620	FOWLER, JAMES C
12723	WALDEN, DENNIS C
12810	WELLMAN, STEVE M
12886	HAAG, PERRY L
12971	ELLIOTT, RILEY
13002	KOHLSTRAND, DONALD C
13150	HAWKINSON, RANDAL C
13412	MCMULLEN, HOWARD W
13413	HALL, SAM
13428	ANDERSON, CHRISTOPHER C
13484	ASSENMACHER, DAVID M
13601	EASTERLY, JOHN
13632	BLACKBURN, JOHN M
13680	THRONE, REX O
13734	BALINSKI, DENISE L

Target Street	Cross Street	Source
✓	-	Cole Information

AUSTIN RD 2017 (Cont'd)

13961	HINDERER, STEPHEN A
14155	BRACKNEY, PENNY B
14182	FRIEDLAND, LARRY
14250	LACY, ROBERT S
14260	HELFRICH, JOAN M

Target Street	Cross Street	Source
✓	-	Cole Information

W AUSTIN RD 2017

14282	KEMNER, JOHN H
14321	CLARK, JERRY T
14341	DUVALL, STEVEN M
14500	FREY, RONALD W
14610	DEGROOTE, DARALD P
14724	LANTIS, NEIL
14800	LANTIS, MARK R
15100	CAMP DAINAVA
15135	SEARL, STEPHEN A
15175	TROLZ, DANIEL A
15394	DESAUTEL, HENRY A
15402	KOZAKIEWICZ, DAVID B
15406	BATEMAN, DEVERN W
15410	BROWER, CASSANDRA C
15521	LITWIN, KRISTIE M
15867	KING, BRIAN J
15999	MAURER, DIANE P
16000	BRANCH, KENNETH L
16160	DEZWAAN, KEITH A
16521	NINE, TIMOTHY R
16530	EDGERLY, AJ
16916	AMAN, WILLIAM D
16924	BROWN, CRAIG A
17037	ROMEJ, NICHOLAS
17200	KRAFTCHICK, ELLEN M
17610	WHITE, JOANNA R
17620	WEHNER, TODD A
18000	KELLEY, JEFFREY J
18006	OJACK, EVAN B
18010	STETLER, RICHARD D
18020	PARSELL, JOSHUA
18030	EMERY, JAMES R
18089	WERNER, CARL W
18100	FORD, MARVIN D
18101	SCHLICHT, JEFFREY D
18167	SCHOOK, JAMES K
18243	BROWN, CARL F
18293	ROBERTS, JAMES R
18352	GAUTZ, JAMES F
18420	JEAL, GEOFFREY L
18481	MANCHESTER COLLISION INC
18600	BEAUCLOIN, ARTHUR
	BEAUDOIN, ARTHUR A
18875	MANCHESTER FEED & SUPPLY
	UHAUL
18879	MANN, REBECCA L

Target Street	Cross Street	Source
✓	-	Cole Information

AUSTIN RD 2014

10700	DAVIS, STEPHEN A
10791	SCHATZ, DOUGLAS A
10799	OCCUPANT UNKNOWN,
10807	OCCUPANT UNKNOWN,
10811	RADANT, CATHY L
10990	CURTIS, DENNIS L
11211	CURTIS, JEFFREY W
11365	WILD, LOIS M
11371	CANTOR, ERICA L
11374	GUTHRIE, BARBARA
11384	KEIS, JOYCE M
11385	OCCUPANT UNKNOWN,
11388	CONLEY, HAROLD D
11400	PORTER, ROBERT P
11401	OSTRANDER, DENISE S
11411	BORIN, ROBERT
11451	HAYSTEAD, HAROLD D
11467	TRUDEAU, THOMAS R
11600	ETHER, ROY
11700	BLAKEMAN, DARRELL E
11711	TEFFT, ROBERT M
11716	HULBURT, DAN B
11720	CLORE, JEREMY R
11725	OCCUPANT UNKNOWN,
11775	MOORE, SCOTT D
11890	LEPPER, LONNIE B
11899	TURVEY, TIMOTHY J
11904	OCCUPANT UNKNOWN,
11917	GRIFKA, RONALD M
11920	DUVALL, BRYAN E
11925	WYMER, STEVEN L
11930	ANDERSON, ANDY L
11946	SMITH, DAMIEN L
11958	BRIGHTWELL, CHRISTOPHER M
12048	INFANTINO, GIOVANNI
12051	AMBLER, REED M
12056	PRESTIA, RICHARD D
12060	OCCUPANT UNKNOWN,
12365	MILLER, CHARLIE R
12383	MAZUR, ASHLEY
12579	BARTH, SARAH J
12620	FOWLER, JAMES C
12723	WALDEN, TROY M
12810	WELLMAN, STEVE M
12886	BARTH, JERRY A
12971	ELLIOTT, GREG D
13002	KOHLSTRAND, DONALD C
13010	PERLBERG, MEL C
13150	HAWKINSON, RANDAL C
13411	SHORT, JEFFREY E

Target Street	Cross Street	Source
✓	-	Cole Information

AUSTIN RD 2014 (Cont'd)

13412	MCMULLEN, HOWARD W
13413	HALL, SAM
13428	ANDERSON, CHRISTOPHER C
13484	OCCUPANT UNKNOWN,
13491	BEISER, NANCY
13601	EASTERLY, JOHN
13632	CASEY, DAVID D
13680	ELLISON, DAVID M
13734	BALINSKI, DENISE L
13786	SIEBENALLER, BOB S
13961	HINDERER, STEPHEN A
14155	BRACKNEY, PENNY B
14182	PADLEY, BONNIE J
14250	LACY, ROBERT S
14260	HELFRICH, JOAN M

Target Street	Cross Street	Source
✓	-	Cole Information

W AUSTIN RD 2014

14282	KEMNER, JOHN H
14321	CLARK, JERRY T
14341	DUVALL, STEVEN M
14500	FREY, RONALD W
14610	DEGROOTE, DARALD P
14724	LANTIS, RACHEL M
14800	LANTIS, MARK R
15100	CAMP DAINAVA
15135	OCCUPANT UNKNOWN,
15175	TROLZ, DANIEL A
15394	DESAUTEL, HENRY A
15406	BATEMAN, KENNETH S
15410	BROWER, CASSANDRA C
15521	LITWIN, KRISTIE
15867	OCCUPANT UNKNOWN,
15999	MAURER, DIANE P
16000	BRANCH, KENNETH L
16160	DEZWAAN, KEITH A
16521	NINE, TIMOTHY R
16530	EDGERLY, AJ
16911	HASSETT, WILLIS
16916	AMAN, WILLIAM D
16924	GRIEBEL, RICHARD P
16991	OCCUPANT UNKNOWN,
17037	OCCUPANT UNKNOWN,
17200	KRAFTCHICK, ELLEN M
17610	WHITE, JOANNA R
17620	OCCUPANT UNKNOWN,
18000	KELLEY, JEFFREY J
18006	OCCUPANT UNKNOWN,
18010	STETLER, RICHARD D
18020	PARSELL, JOSHUA
18030	EMERY, JAMES R
18050	CROGHAN, WILLIAM
18089	WERNER, CARL W
18100	FORD, MARVIN D
18101	OCCUPANT UNKNOWN,
18167	SCHOOK, JAMES M
18243	BROWN, CARL F
18293	ROBERTS, JAMES R
18352	EVERSOLE, JOANNE E
	GAUTZ, JAMES F
18420	JEAL, GEOFFREY L
18424	HILBERT, LB B
18481	MANCHESTER COLLISION
18600	BEAUCLOIN, ARTHUR
	BEAUDOIN, ARTHUR A
	BOB, CUTLER
18646	WISNER, JAMES D
18875	MANCHESTER FEED & SUPPLY

Target Street	Cross Street	Source
✓	-	Cole Information

W AUSTIN RD 2014 (Cont'd)

18875 UHAUL
18879 MANN, JEFFREY R

Target Street	Cross Street	Source
✓	-	Cole Information

AUSTIN RD 2010

10791	SCHATZ, DOUGLAS A
10799	CONTE, BERNARD A
10807	LOOMIS, ALLAN D
10811	RADANT, CATHY L
10990	CURTIS, DENNIS L
11211	CURTIS, JEFFREY W
11365	COTTRELL, MARILYNN J
11374	CLARK, MARIAN E
11384	KIES, WALTER S
11385	CALICE, CARMEN J
11400	PORTER, JERRY L
11401	STYX, DENISE S
11411	BORIN, ROBERT
11451	H & H FARMS
11467	TRUDEAU, THOMAS R
11600	ETHER, ROY
11700	BLAKEMAN, DARRELL E
11711	TEFFT, ROBERT M
11716	HULBURT, DAN B
11720	CLORE, JEREMY R
11725	CARMONEY, CARL D
11775	MOORE, SCOTT D
11890	LEPPER, HOLLY L
11899	TURVEY, TIMOTHY J
11904	INMON, NANCY A
11917	GRIFKA, RONALD M
11920	DEBAEKE, LAWRENCE C
11925	WYMER, STEVEN L
11930	CARPENTER, NEYSA M
11946	SMITH, ROSE S
11958	BRIGHTWELL, CHRIS
12048	SERAFINI, CARLO
12051	AMBLER, REED M
12056	PRESTIA, RICHARD D
12060	ALLEN, TROY W
12365	MILLER, CHARLIE R
12579	BARTH, ARTHUR J
12620	DECONICK, COLEMAN C
12723	WALDEN, ROBIN M
12810	WELLMAN, STEVE M
12971	ELLIOTT, GREG D
13002	KOHLSTRAND, DONALD C
13010	PERLBERG, MEL C
13412	MCMULLEN, HOWARD W
13491	DEBOLT, TAUNE M
13601	ELLIS, TOM K
13632	CASEY, DAVID D
13680	ELLISON, DAVID M
13734	MORRIS, RONALD E
13786	SMITH, CHRIS

Target Street	Cross Street	Source
✓	-	Cole Information

AUSTIN RD 2010 (Cont'd)

13961	HINDERER, STEPHEN A
14155	MILLSAP, DEBORAH L
14182	JOHN, TIMOTHY A
14250	LUTES, DAVID J
14260	HELFRICH, MICHAEL J
14282	KEMNER, JOHN H
14321	CLARK, JERRY T

Target Street	Cross Street	Source
✓	-	Cole Information

W AUSTIN RD 2010

14341	DUVALL, JEFFREY L
14500	FREY, WILBUR
14610	DEGROOTE, DARALD P
14724	LANTIS, JAY N
14800	LANTIS, MARK R
15175	TROLZ, DANIEL A
15300	CARR, WESS
15394	DESAUTEL, HENRY A
15402	KOZAKIEWICZ, DAVID B
15410	GLENN, JAMES G
15521	LITWIN, KRISTIE
15867	MAURER, LAURA
15999	MAURER, DIANE P
16000	BRANCH, KENNETH L
16160	DEZWAAN, KEITH A
16521	NINE, TIMOTHY R
16530	EDGERLY, AJ
16916	AMAN, WILLIAM D
16924	GRIEBEL, RICHARD P
16991	HASSETT, WILLIS R
17200	KRAFTCHICK, ELLEN M
17620	HARVEY, GRANT R
18006	JOHNSON, DAVID A
18020	SEWARD, DANIEL K
18030	EMERY, JAMES R
18089	WERNER, CARL W
18100	FORD, MARVIN D
18101	CLARK, DEREK A
18167	SCHOOK, JAMES M
18243	BROWN, CARL F
18293	ROBERTS, JAMES R
18352	EVERSOLE, JOANNE E
	GAUTZ, JAMES F
	JORDAN, PETER
18420	JEAL, GEOFFREY L
18424	HILBERT, LB B
18481	EXPERT AUTO GLASS
	MANCHESTER COLLISION INC
	MANCHESTER TOWING
18500	HATKOW, TAMMY S
18600	BEAUDOIN, ARTHUR A
	MANCHESTER VETERINARY CLINIC
18646	WISNER, JAMES D
18875	MANCHESTER FEED & SUPPLY
	UHAUL CO
18879	MANN, JEFFREY R

Target Street	Cross Street	Source
✓	-	Cole Information

AUSTIN RD 2005

10700	DAVIS, RALPH H
10791	SCHATZ, DOUGLAS A
10799	CONTE, BERNARD A
10807	SHOUSE, JOSEPH L
10990	CURTIS, DENNIS L
11211	CURTIS, JEFFREY W
11365	WILD, LARRY J
11374	CLARK, MARIAN E
11384	KIES, WALTER S
11385	CALICE, CARMEN J
11386	ROGERS, ROBERT A
11388	MARTIN, NANCY C
	WILDCON LLC
11400	PORTER, JERRY L
11401	OSTRANDER, DENISE S
11411	BORIN, ROBERT
11451	DOUBLE H FARMS
	HAROLD HAYSTEAD
	HAYSTEAD, HAROLD D
	JONES, JOLEEN M
11467	TRUDEAU, THOMAS
11600	ETHER, ROY
11700	BLAKEMAN, DARRELL E
11711	TEFFT, ROBERT M
11716	HULBURT, DAN B
11720	CLORE, JEREMY R
11725	CARMONEY, CARL D
11750	JESTER, MARVIN L
11775	MOORE, SCOTT D
11917	GRIFKA, RONALD M
11920	COVER ALL CONSTRUCTION LLC
	DEBAEKE, LAWRENCE C
11925	WYMER, STEVEN L
11930	CARPENTER, NEYSA M
11946	SMITH, ROSALIND A
11958	MURPHY, SHAWN P
12048	SERAFINI, CARLO
12051	AMBLER, REED M
12056	PRESTIA, RICHARD D
12365	MILLER, CHARLIE R
12383	MAZUR, ASHLEY
12579	BARTH, ARTHUR J
12620	DECONICK, COLEMAN J
12810	WELLMAN, STEVE M
12886	PERRY J HAAG
12971	ELLIOTT, GREG D
13002	KOHLSTRAND, DONALD C
13010	PERLBERG, MEL C
13150	FALL, J
13412	MCMULLEN, HOWARD W

Target Street	Cross Street	Source
✓	-	Cole Information

AUSTIN RD 2005 (Cont'd)

13491	DEBOLT, JOESEPH
13601	EASTERLY, JOHN
13632	CASEY, DAVID D
13680	CHIDESTER, STEVE G
13734	MORRIS, RONALD E
13786	SIEBENALLER, BOB
13961	HINDERER, STEPHEN A
14155	SMILEY, MICHAEL
14182	TIMOTHY, JOHN
14250	DELONGCHAMP, HAROLD A
14321	CLARK, JERRY T
14341	DUVALL, JEFFREY L

Target Street	Cross Street	Source
✓	-	Cole Information

W AUSTIN RD 2005

14260 HELFRICH, MICHAEL J
14282 KEMNER, JOHN H
14610 DEGROOTE, DARALD P
14724 LANTIS, JNE N
14800 LANTIS, MARK
15175 THE 18TH CENTURY SHOPPE
TROLZ, DANIEL A
15300 CARR, WESS
15394 DESAUTEL, HENRY A
15402 DAVIS, BASCUM J
15406 SAMONEK, JAMES W
15410 EVILSIZER, JUANITA M
15521 LITWIN, VIRGINIA C
15867 MAURER, LAURA
STANLEY MAURER
16000 BRANCH, KENNETH L
16160 PARKS CARPET CARE
16521 B & S TOWING
SCHUMACHER, KRYSTYNA L
16530 EDGERLY, KIMBERLY A
16916 AMAN, WILLIAM D
16924 GRIEBEL, RICHARD P
16991 HASSETT, RALPH W
17200 KRAFTCHICK, ELLEN M
17416 KRAFTCHICK, ESTHER R
17610 SHAW, GERALD P
17620 HARVEY, GRANT R
18000 FAULHABER, MICHAEL F
18006 CLAWSON, CHERYL A
18030 EMERY, JAMES R
18050 CROGHAN, MICHAEL P
18089 WERNER, CARL W
18100 FORD, MARVIN D
18101 MAISANO, BRENDA L
18167 SCHOOK, JAMES M
18241 MANCHESTER STORAGE LLC
18243 BROWN, CARL F
18293 ROBERTS, JAMES R
18352 CHANTELOIS, S
18420 DEJONGHE, MARK D
MARTHA HENRYS BARN
18424 HILBERT, LB B
18481 MANCHESTER COLLISION INC
MANCHESTER STORAGE
18500 HATKOW, TAMMY S
18558 ARTHUR BEAUDOIN DVM
MANCHESTER VETERINARY CLINIC
18600 BEAUDOIN, ARTHUR A
RED TAIL INVESTMENTS LLC
18875 ATLAS OF MANCHESTER

Target Street	Cross Street	Source
✓	-	Cole Information

W AUSTIN RD 2005 (Cont'd)

18875 MANCHESTER FEED & SUPPLY
18879 MANN, JEFFREY R
18885 MANN, RONALD E

Target Street	Cross Street	Source
✓	-	Cole Information

AUSTIN RD 2000

10807 DETTLING, KIRK D
10990 CURTIS, DENNIS

Target Street	Cross Street	Source
✓	-	Cole Information

W AUSTIN RD 2000

14250 DELONGCHAMP, H A
14260 HELFRICH, MICHAEL
14282 KEMNER, JOHN
14341 DUVALL, LOUIS
14500 FREY, WILBUR
14610 DEGROOTE, DARALD P
14724 LANTIS, J N
14800 BURTON, NATALIE A
15175 TROLZ, SANDRA
15300 CARR, WESS
15394 DESAUTEL, HENRY A
15402 MAKIELSKI, CATHY
15406 BATEMAN, DE V
15410 EVILSIZER, JUANITA
15521 LITWIN, V C
15867 MAURER, STANLEY J
16000 BRANCH, KEN
16160 JOHNSON, JEAN D
16521 CULLER, TOM
16530 WOODS, BRANDON
16924 GRIEBEL, RICHARD P
16991 WRIGHT, SANDRA K
17037 WAHL, HELEN J
17200 KRAFTCHICK, ELLEN
17416 KRAFTCHICK, ESTHER R
17610 SHAW, THERESA E
17620 HARVEY, GRANT
17951 MANCHESTER STAMPING CORPORATION
18000 FAULHABER, MICHAEL
18006 GELDNER, MICAH S
18010 ARBOR CONTRACTING INCORPORATED
18030 EMERY, JAMES R
18050 BRAUN, LEONA M
18101 SCHLICHT, RUTH I
18243 BROWN, CARL
18293 ROBERTS, JAMES
18352 DUTCH COUNTRY KITCHENS
THELEN, JAMES A
18420 TROLZ, JULI
18481 MANCHESTER COLLISION INCORPORATED
18558 MANCHESTER VETERINARY CLINIC
18600 BEAUDOIN ARTHUR DVM
BEAUDOIN, A
18875 ATLAS OF MANCHESTER
18879 MANN, JEFFREY R

Target Street	Cross Street	Source
✓	-	Cole Information

AUSTIN RD 1995

10401	SCHATZ, DAVID D
10630	BOETTNER, ELMER C
10700	DAVIS, RALPH H
10791	SCHATZ, DOUGLAS
10799	CONTE, B A
10807	DETTLING, KIRK
10811	HAMMER, LINDA C
10990	CURTIS, LYLE
11211	CURTIS, JEFFREY W
11371	WILD, LOIS
11374	CLARK, JOHN A
11384	KIES, WALTER S
11385	YOAKAM, VICTOR C
11401	GODFREY, CRAIG
11411	BIVINS, GLENN W
11451	HAYSTEAD, HAROLD
11600	ANDERSON, DONALD J
11700	BLAKEMAN, DARRELL E
11711	TEFFT, ROBERT M
11720	JESTER, MARVIN L
11775	DAVIS, MELISSA
11946	SMITH, HANK
11958	VERCANDE, JAMES L
12060	SMITH, DIANE
12365	CZAJKOWSKI, DANIEL
12383	GALARDI, C
12579	BARTH, ARTHUR JR
12620	DECONICK, COLEMAN
12723	WALDEN, MATT
12810	WELLMAN, STEVE
12886	SUTLIFF, SYLVIA
12971	GERMAIN, DONALD
13004	LOGAN, MATTHEW L
13010	PERLBERG, MEL
13313	DUVALL, KEVIN
13412	MCMULLEN, HOWARD W
13601	EASTERLY, SHARON
13961	MOULTON, A L

Target Street	Cross Street	Source
✓	-	Cole Information

W AUSTIN RD 1995

1699 HASSETT, WILLIS
14155 BOOKER, DAVID C
14182 FREY, RONALD W
14250 DELONGCHAMP, H A
14260 HELFRICH, MICHAEL
14282 KEMNER, JOHN
14321 DUKE, C
14341 DUVALL, LOUIS
14500 FREY, WILBUR
14610 DEGROOTE, DARALD P
14724 LANTIS, J N
14800 MARTIN, KEN
15100 YOUTH CAMP DAINAVA
15175 TROLZ, SANDRA
15300 CARR, WESS
15394 DESAUTEL, HENRY A
15402 DAVIS, CATHY
15406 BATEMAN, DEVERN W
15410 EVILSIZER, RAYMOND
15521 LITWIN, LEWIS A
15867 MAURER, BEN
16000 BRANCH, KEN
16160 JOHNSON, JEAN D
QUALITY MADE FABRICATION
16521 WOODS, TERRY
16924 HOLZHOFFER, JOSEPH
17037 WAHL, LEHMAN
17200 KRAFTCHICK, ELLEN
17416 KRAFTCHICK, ESTHER R
17547 DYERS AUTO PARTS
17590 LONG, LLOYD D
17610 SHAW, THERESA E
18000 FAULHABER, MICHAEL
18030 EMERY, JAMES R
18050 BRAUN, RUSSELL
18100 FORD, MARVIN D
18101 SALYER, CONNIE
18243 BROWN, CARL
18293 ROBERTS, JAMES
18352 DUTCH CNTRY KTCHNS
DUTCH COUNTRY KITCHENS
THELEN, JAMES A
18424 PENET, MARY
18481 PARRS AUTO BODY
18500 PARR, LESLIE
18600 MANCHESTER VETERINARY CLINIC
18646 WISNER, CALVIN
18875 ATLAS OF MANCHESTER
18879 LONDON, DAVID
18885 MANN, RONALD E

Target Street	Cross Street	Source
✓	-	Cole Information

W AUSTIN RD 1995 (Cont'd)

20400 GARLANDS PUB
20460 GOODRICH, DAVID R
20620 MR MULCH
20630 PRIVATTE, TONY
20633 BABY SAFETY SVC
20636 DAY, CURTIS H
20640 WHELAN, EDWARD P
20904 BANCROFT, EDWARD G
20905 ROSS, RAYMOND

Target Street	Cross Street	Source
✓	-	Cole Information

AUSTIN RD 1992

10700	DAVIS, RALPH H
10791	SCHATZ, DAVID D
10799	CONTE, B A
10990	CURTIS, LYLE
11211	CURTIS, JEFFREY W
11374	CLARK, JOHN A
11384	KIES, WALTER S
11411	BIVINS, GLENN W
11600	ANDERSON, DONALD J
11700	BLAKEMAN, DARRELL E
11720	JESTER, MARVIN L
11946	SMITH, R
12051	AMBLER, REED M
12365	CZAJKOWSKI, DANIEL
12383	LINDAHL, GREGORY
12579	BARTH, ARTHUR SR
12620	DECONICK, COLEMAN
12723	WALDEN, MATT
12810	WELLHOFF, OREN
12886	SANDERS, HOWARD Z
12971	GERMAIN, DONALD
13004	LOGAN, MATTHEW L
13010	PERLBERG, MEL
13411	KARSTEN, DUANE
13412	MCMULLEN, HOWARD W
13601	EASTERLY, SHARON
13961	SCHROT, JAYMIE
114512	HAYSTEAD, HAROLD
117115	TEFFT, ROBERT M
1080710	SERAFIN, ANNE

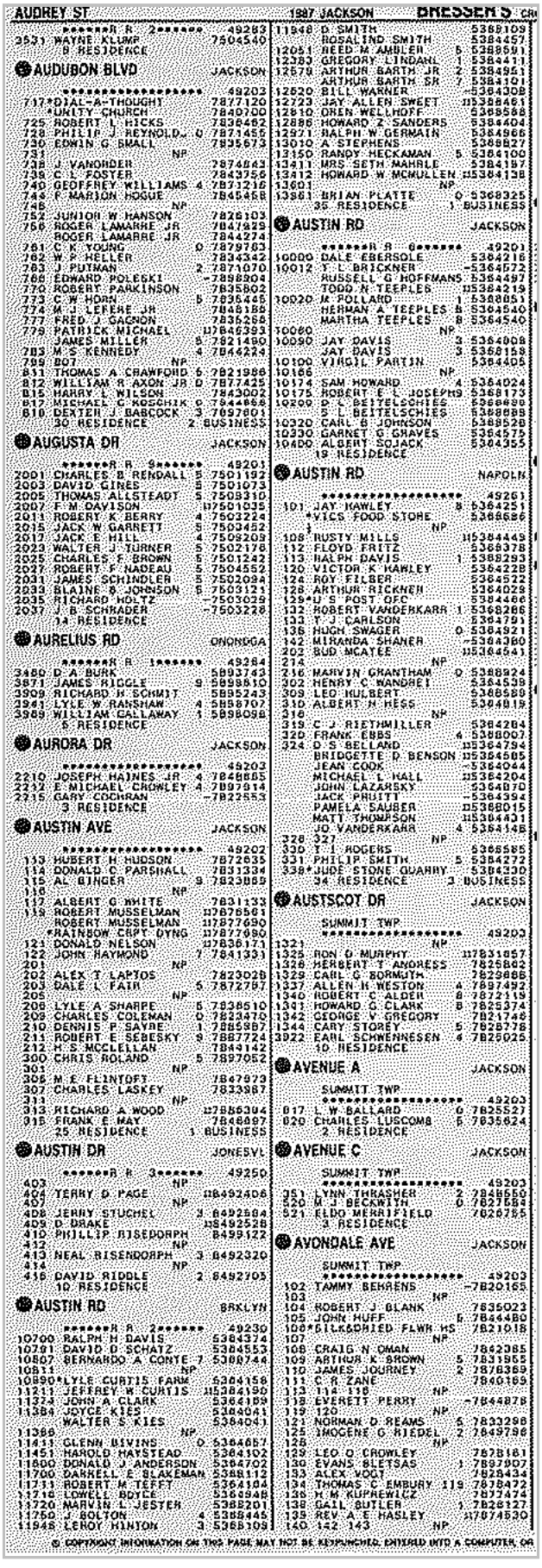
Target Street	Cross Street	Source
✓	-	Cole Information

W AUSTIN RD 1992

14321 FILLYAW, ELIHEW
14341 DUVALL, LOUIS
14500 FREY, WILBUR
14610 GORMLEY, THOMAS H
14724 LANTIS, J N
14800 MATHEWS, ALAN
15100 GRAZULIS, MARIUS
YOUTH CAMP DAINAVA
15300 CARR, WESS
15402 DAVIS, JAY
15406 BATEMAN, DEVERN
15410 SQUIRES, GLEN T
15521 LITWIN, LEWIS A
15867 MAURER, BEN
16000 BRANCH, KEN
16160 KEMNER, WILLIAM L
16521 WOODS, TERRY
16924 HOLZHOFFER, JOSEPH
16991 HASSETT, WILLIS
17037 WAHL, LEHMAN
17200 KRAFTCHICK, ELLEN
17416 KRAFTCHICK, ESTHER R
17547 DYERS AUTO PARTS
17610 SHAW, THERESA E
17951 MANCHESTR STMPNG
18000 FAULHABER, MICHAEL
18030 OBRIENNOVOTNY, BAKER
18050 BRAUN, RUSSELL
18100 GRIGG, HARLEY M
18101 BUDGET CLEANING
18243 BROWN, CARL
18293 ROBERTS, JAMES
18352 DUTCH CNTRY KTCHNS
18481 PARRS AUTO BODY
18500 PARR, LESLIE
18600 DR ARTHUR BEAUDOIN
MANCHSTR VET CLNC
18875 ATLAS OF MANCHSTR
18879 LONDON, DAVID
18885 MANN, RONALD E
20400 GARLAND PUB
20460 GOODRICH, DAVID R
20620 RIVERVIEW
20630 PRIVATTE, TONY
20633 WALTER, TERRY
20636 DAY, CURTIS H
20904 BANCROFT, EDWARD G
20905 ROSS, RAYMOND

Target Street	Cross Street	Source
✓	-	Bresser's Cross-Index Directory

AUSTIN RD 1987



AUDREY ST — 1987 JACKSON — BRESSER'S CR

3531 WAYNE KLUMP 7504540
8 RESIDENCE

AUDUBON BLVD JACKSON

717 DIAL-A-THOUGHT 7877120
UNITY CHURCH 7840700
725 ROBERT L HICKS 7836482
728 PHILIP J REYNOLD.. 0 7871456
730 EDWIN G SMALL 7835673
731 NP
738 J VANORDER 7874843
739 C L FOSTER 7843756
740 GEOFFREY WILLIAMS 4 7871216
748 F MARION HOGUE 7845468
748 NP
752 JUNIOR W HANSON 7826103
756 ROGER LAMARRE JR 7847929
ROGER LAMARRE JR 7844274
761 C K YOUNG 0 7879703
762 W P HELLER 7834342
763 J PUTMAN 2 7871070
766 EDWARD POLESKI -7858904
770 ROBERT PARKINSON 7835802
773 C W HORN 5 7836445
774 M J LEFEBE JR 7848188
777 FRED J GAGNON 7836266
779 PATRICK MICHAEL 17846393
JAMES MILLER 5 7821490
783 M S KENNEDY 4 7844224
799 807 NP
811 THOMAS A CRAWFORD 5 7821988
812 WILLIAM R AXON JR D 7877425
815 HARRY L WILSON 7843002
817 MICHAEL C KOSCHIK C 7844868
818 DEXTER J BABCOCK 3 7897801
30 RESIDENCE 2 BUSINESS

AUGUSTA DR JACKSON

2001 CHARLES B RENDALL 5 7501192
2003 DAVID GINES 5 7501073
2005 THOMAS ALLSTEADT 5 7508310
2007 F M DAVISON 17501035
2011 ROBERT K BERRY 4 7503224
2015 JACK W GARRETT 5 7503452
2017 JACK E HILL 4 7509209
2023 WALTER J TURNER 5 7502178
2025 CHARLES F BROWN 5 7501242
2027 ROBERT F NADEAU 5 7504552
2031 JAMES SCHINDLER 5 7502094
2033 BLAINE S JOHNSON 5 7503121
2035 RICHARD HOLTZ -7503029
2037 J B SCHRADER -7503228
14 RESIDENCE

AURELIUS RD ONONDGA

3480 D A BURK 5893743
3871 JAMES RIGGLE 9 5898810
3909 RICHARD H SCHMIT 5895243
3941 LYLE W RANSHAW 4 5858707
3989 WILLIAM CALLAWAY 1 5898098
6 RESIDENCE

AURORA DR JACKSON

2210 JOSEPH HAINES JR 4 7846805
2212 E MICHAEL CROWLEY 4 7897814
2215 GARY COCHRAN -7822553
3 RESIDENCE

AUSTIN AVE JACKSON

113 HUBERT H HUDSON 7872635
114 DONALD C MARSHALL 7831334
115 AL BINGER 9 7823089
116 NP
117 ALBERT G WHITE 7831133
119 ROBERT MUSSELMAN 17877681
ROBERT MUSSELMAN 17877690
RAINBOW CRFT DYNG 17877690
121 DONALD NELSON 17836171
122 JOHN RAYMOND 7 7841331
201 NP
202 ALEX T LAPTOS 7823028
203 DALE L FAIR 5 7872797
205 NP
208 LYLE A SHARPE 5 7838510
209 CHARLES COLEMAN 0 7823470
210 DENNIS F SAYRE 7865967
211 ROBERT E SEBESKY 9 7887724
212 H S MCCLELLAN 7841142
300 CHRIS ROLAND 5 7897052
301 NP
306 M E FLINTOFT 7847979
307 CHARLES LASKEY 7833987
311 NP
313 RICHARD A WOOD 17886394
315 FRANK E MAY 7848097
25 RESIDENCE 1 BUSINESS

AUSTIN DR JONESVL

403 NP
404 TERRY D PAGE 18492408
407 NP
408 JERRY STUCHEL 3 8492504
409 D DRAKE 18492528
410 PHILLIP BISENDORPH 8499122
412 NP
413 NEAL BISENDORPH 3 8492320
414
416 DAVID RIDDLE 2 8492705
10 RESIDENCE

AUSTIN RD BRKLYN

10700 RALPH H DAVIS 5384374
10791 DAVID D SCHATZ 5384553
10807 BERNARDO A CONTE 7 5388744
10811 NP
10890 LYLE CURTIS FARM 5384158
11211 JEFFREY W CURTIS 15384190
11224 JOHN F CLARK 5384189
11384 JOYCE KIES 5384041
WALTER S KIES 5384041
11386 NP
11411 GLENN BIVINS 0 5384657
11451 HAROLD HAYSTEAD 5384102
11500 DONALD J ANDERSON 5384702
11700 DARRELL E BLAKEMAN 5388112
11711 ROBERT M TEFFT 5384184
11716 LOWELL BOYCE 5388948
11720 MARVIN L JESTER 5388201
11750 J BOLTON 4 5388445
11948 LEROY HINTON 3 5388109
11948 D SMITH 5388109
ROSALIND SMITH 5384457
12051 REED M AMBLER 5 5388591
12282 GREGORY LINDAHL 1 5384411
12579 ARTHUR BARTH JR 2 5384951
ARTHUR BARTH SR 7 5384101
12620 BILL WARNER -5384308
12723 JAY ALLEN SWEET 15388461
12810 OREN WELLHOFF 5388588
12886 HOWARD Z SANDERS 5384404
12921 RALPH W GERMAIN 1 5384966
13010 A STEPHENS 5388827
13150 RANDY HECKAMAN 5 5384100
13411 MRS SETH MAHRLE 5384197
13412 HOWARD W MCMULLEN 15384138
13601 NP
13861 BRIAN PLATTE 0 5388325
35 RESIDENCE 1 BUSINESS

AUSTIN RD JACKSON

6 49201
10000 DALE EBERSOLE 5384216
10012 T L BRICKNER -5384572
RUSSELL G HOFFMANS 15384497
TODD N TEEPLES 15384219
10020 M POLLARD 1 5388851
HERMAN A TEEPLES 8 5384540
MARTHA TEEPLES 8 5384540
10060 NP
10090 JAY DAVIS 3 5384008
JAY DAVIS 3 5388153
10100 VIRGIL PARTIN 5384405
10166 NP
10174 SAM HOWARD 4 5384024
10175 ROBERT E L JOSEPHS 5388173
10209 P L BEITELSCHIES 5388838
S L BEITELSCHIES 5388838
10320 CARL B JOHNSON 5388520
10330 GARNET G GRAVES 5384575
10400 ALBERT SOJACK 5384355
19 RESIDENCE

AUSTIN RD NAPOLN

49261
101 JAY KAWLEY 8 5384251
VICS FOOD STORE 5388686
NP
108 RUSTY MILLS 15384449
112 FLOYD FRITZ 5388378
113 RALPH DAVIS 1 5388293
120 VICTOR K HAWLEY 5384228
124 ROY FILBER 5384522
128 ARTHUR RICKNER 5384028
129 U S POST OFC 5384466
132 ROBERT VANDERKARR 1 5388286
133 T J CARLSON 5384791
136 HUGH SWAGER 0 5384921
142 MIRANDA SHANER -5384380
202 BUD MCATEE 15384541
214 NP
216 MARVIN GRANTHAM 0 5388924
302 HENRY C WANDREI 5384539
309 LEO KULBERT 5388589
310 ALBERT H HESS 5384019
316 NP
319 C J RIETHMILLER 5384284
320 FRANK EBBS 4 5388007
324 D S BELLAND 15364794
BRIDGETTE D BENSON 15384585
JEAN COOK -5384044
MICHAEL L HALL 15384204
JOHN LAZANSKY 5384870
JACK PRUITT -5384394
PAMELA SAUBER 15388015
MATT THOMPSON 15384401
JO VANDERKARR 4 5384148
328 327 NP
330 T I ROGERS 5388585
331 PHILIP SMITH 5 5384272
338 JUDE STONE QUARRY 5384330
34 RESIDENCE 3 BUSINESS

AUSTSCOT DR JACKSON

SUMMIT TWP
49203
1321 NP
1325 RON D MURPHY 17831057
1326 HERBERT T ANDRESS 7825862
1329 CARL G BORMUTH 7829886
1337 ALLEN H WESTON 4 7897492
1340 ROBERT C ALDEN 8 7872119
1341 HOWARD G CLARK 8 7825374
1342 GEORGE V GREGORY 7821748
1344 CARY STOREY 5 7828778
3922 EARL SCHWENNESEN 4 7825025
10 RESIDENCE

AVENUE A JACKSON

SUMMIT TWP
49203
817 L W BALLARD 0 7825527
820 CHARLES LUSCOMB 5 7835624
2 RESIDENCE

AVENUE C JACKSON

SUMMIT TWP
49203
351 LYNN THRASHER 2 7846550
520 M J BECKWITH 0 7827584
521 ELDO MERRIFIELD 7826785
3 RESIDENCE

AVONDALE AVE JACKSON

SUMMIT TWP
49203
102 TAMMY BEHRENS -7820165
103 NP
104 ROBERT J BLANK 7835023
105 JOHN HUFF P 7844480
108 GILKEOMIED FLWR HS 7821018
107 NP
108 CRAIG N OMAN 7862385
109 ARTHUR K BROWN 5 7831955
110 JAMES JOURNEY 2 7878369
111 C R ZANE 7840169
113 114 115 NP
118 EVERETT PERRY -7844878
119 120 NP
121 NORMAN D REAMS 5 7833298
125 IMOGENE G RIEDEL 2 7849796
126 NP
129 LEO O CROWLEY 7878181
130 EVANS BLETSAS 1 7897907
133 ALEX WOLT 7828434
134 THOMAS C EMBURY 119 7878472
135 H M KUPREWICZ 7877474
138 GAIL BUTLER 1 7828127
139 REV A E HASLEY 17874530
140 142 143 NP

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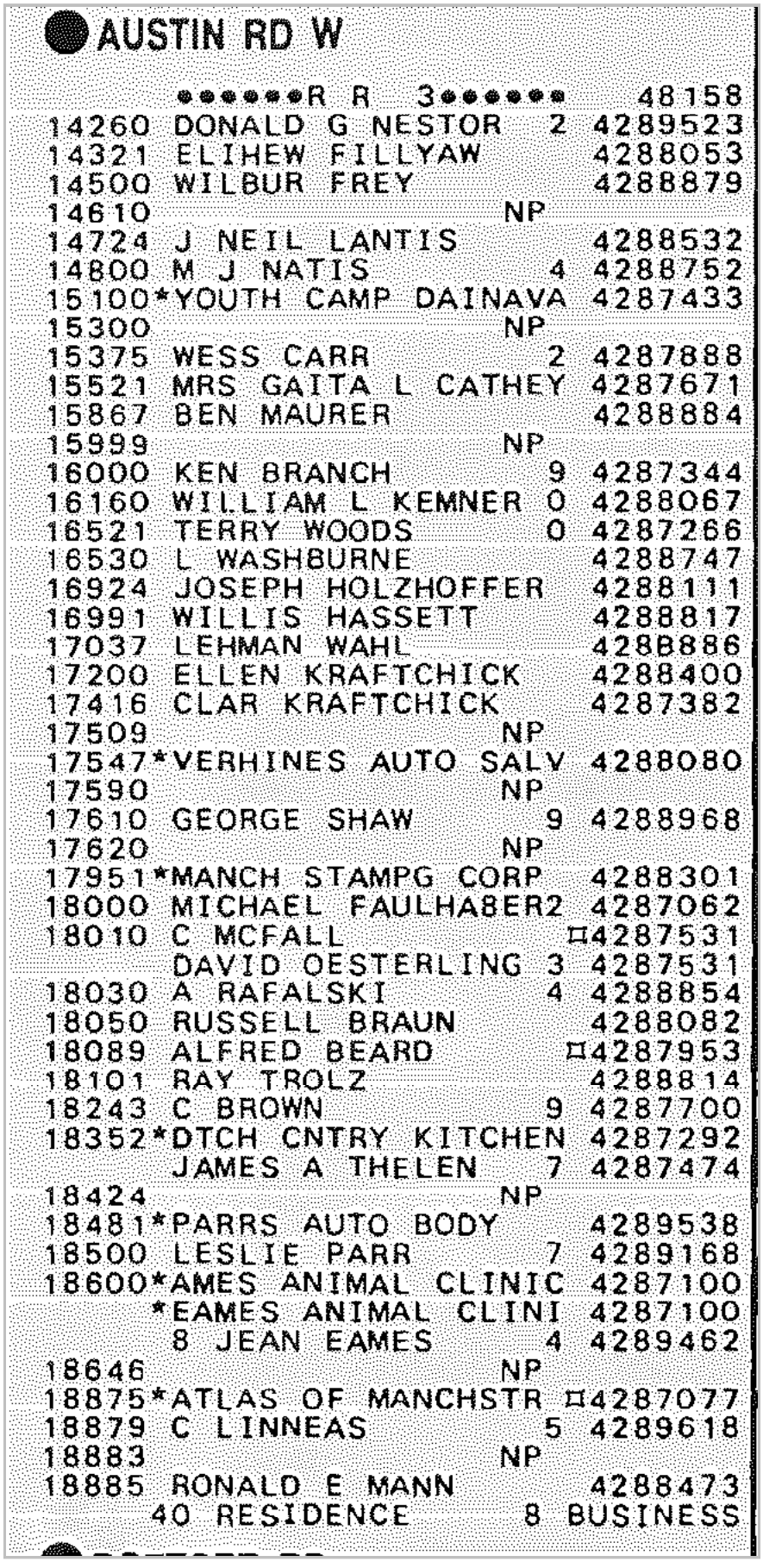
Target Street	Cross Street	Source
✓	-	Bresser's Cross-Index Directory

W AUSTIN RD 1987

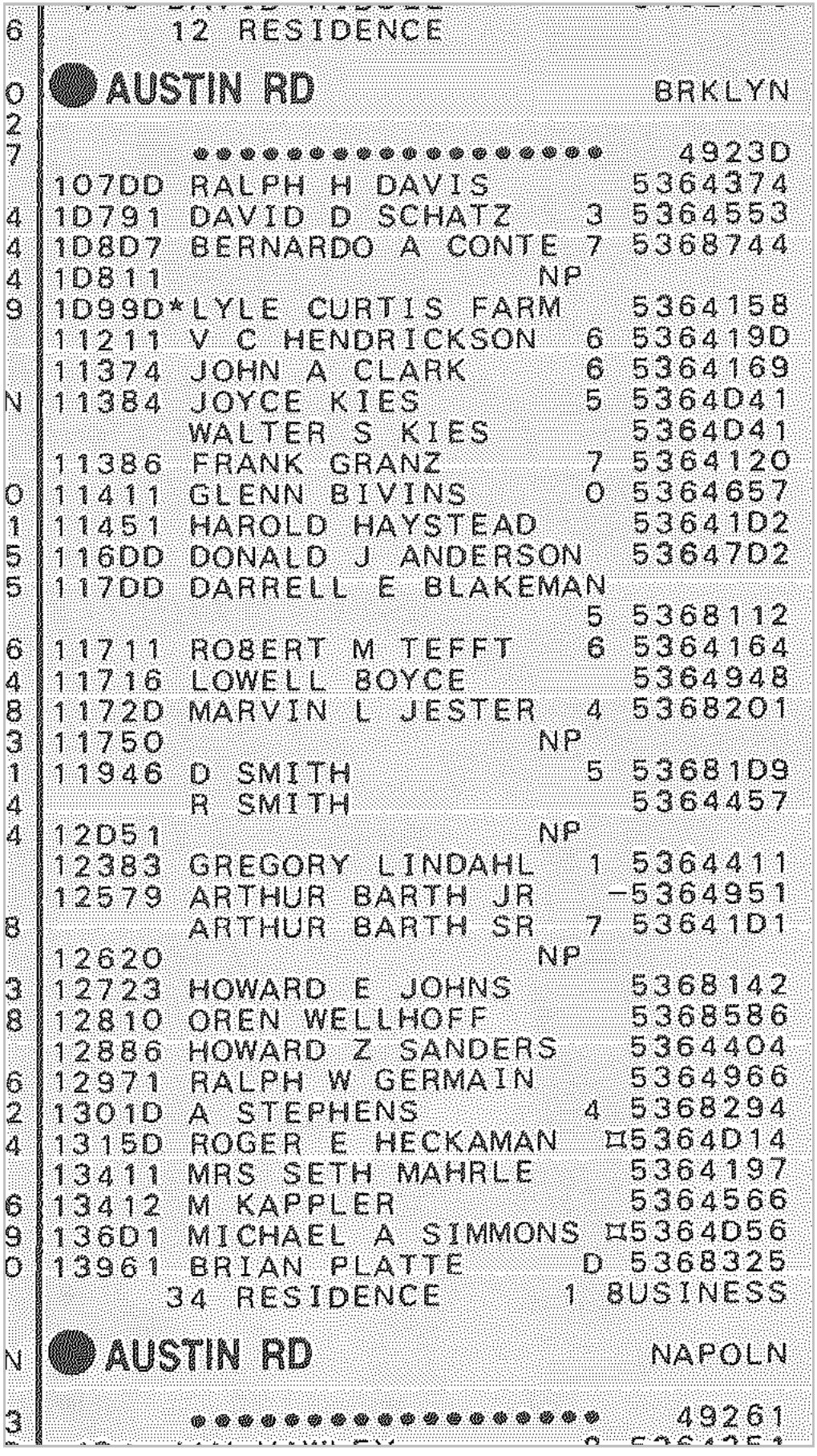


AUSTIN RD W

	●●●●●●R R 3●●●●●●		48158
14260	DONALD G NESTOR	2	4289523
14321	ELIHEW FILLYAW		4288053
14500	WILBUR FREY		4288879
14610		NP	
14724	J NEIL LANTIS		4288532
14800	M J NATIS	4	4288752
15100	*YOUTH CAMP DAINAVA		4287433
15300		NP	
15375	WESS CARR	2	4287888
15521	MRS GAITA L CATHEY		4287671
15867	BEN MAURER		4288884
15999		NP	
16000	KEN BRANCH	9	4287344
16160	WILLIAM L KEMNER	0	4288067
16521	TERRY WOODS	0	4287266
16530	L WASHBURNE		4288747
16924	JOSEPH HOLZHOFFER		4288111
16991	WILLIS HASSETT		4288817
17037	LEHMAN WAHL		428B886
17200	ELLEN KRAFTCHICK		4288400
17416	CLAR KRAFTCHICK		4287382
17509		NP	
17547	*VERHINES AUTO SALV		4288080
17590		NP	
17610	GEORGE SHAW	9	4288968
17620		NP	
17951	*MANCH STAMPG CORP		4288301
18000	MICHAEL FAULHABER	2	4287062
18010	C MCFALL		⌑4287531
	DAVID OESTERLING	3	4287531
18030	A RAFALSKI	4	4288854
18050	RUSSELL BRAUN		4288082
18089	ALFRED BEARD		⌑4287953
18101	RAY TROLZ		4288814
18243	C BROWN	9	4287700
18352	*DTCH CNTRY KITCHEN		4287292
	JAMES A THELEN	7	4287474
18424		NP	
18481	*PARRS AUTO BODY		4289538
18500	LESLIE PARR	7	4289168
18600	*AMES ANIMAL CLINIC		4287100
	*EAMES ANIMAL CLINI		4287100
	8 JEAN EAMES	4	4289462
18646		NP	
18875	*ATLAS OF MANCHSTR		⌑4287077
18879	C LINNEAS	5	4289618
18883		NP	
18885	RONALD E MANN		4288473
	40 RESIDENCE	8	BUSINESS

Target Street	Cross Street	Source
✓	-	Bresser's Cross-Index Directory

AUSTIN RD 1983



6 12 RESIDENCE

0 AUSTIN RD BRKLYN

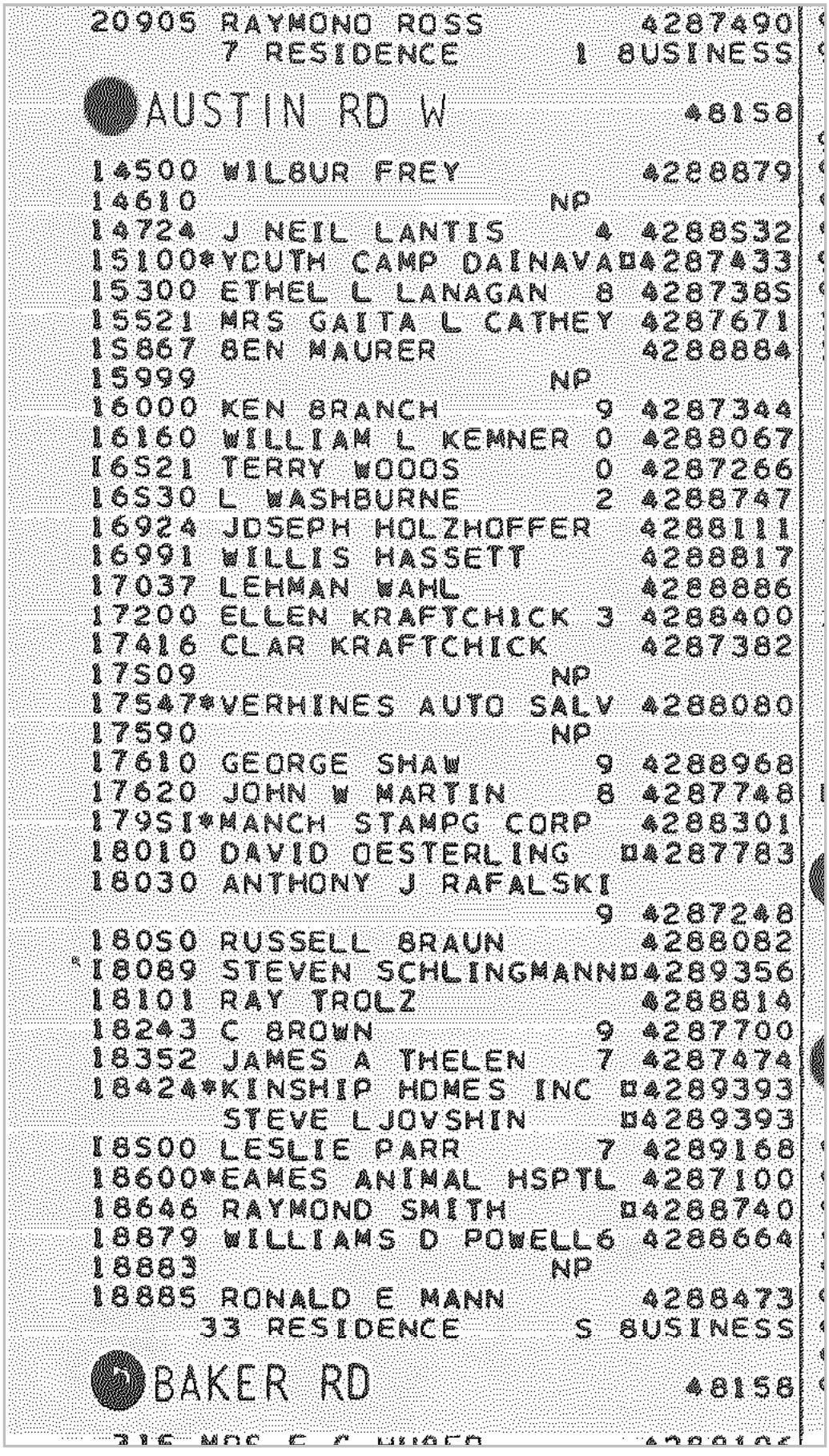
2
7 4923D
107DD RALPH H DAVIS 5364374
4 1D791 DAVID D SCHATZ 3 5364553
4 1D8D7 BERNARDO A CONTE 7 5368744
4 1D811 NP
9 1D99D* LYLE CURTIS FARM 5364158
11211 V C HENDRICKSON 6 536419D
11374 JOHN A CLARK 6 5364169
N 11384 JOYCE KIES 5 5364D41
WALTER S KIES 5364D41
11386 FRANK GRANZ 7 5364120
0 11411 GLENN BIVINS 0 5364657
1 11451 HAROLD HAYSTEAD 53641D2
5 116DD DONALD J ANDERSON 53647D2
5 117DD DARRELL E BLAKEMAN
5 5368112
6 11711 ROBERT M TEFFT 6 5364164
4 11716 LOWELL BOYCE 5364948
8 1172D MARVIN L JESTER 4 5368201
3 11750 NP
1 11946 D SMITH 5 53681D9
4 R SMITH 5364457
4 12D51 NP
12383 GREGORY LINDAHL 1 5364411
12579 ARTHUR BARTH JR -5364951
8 ARTHUR BARTH SR 7 53641D1
12620 NP
3 12723 HOWARD E JOHNS 5368142
8 12810 OREN WELLHOFF 5368586
12886 HOWARD Z SANDERS 5364404
6 12971 RALPH W GERMAIN 5364966
2 1301D A STEPHENS 4 5368294
4 1315D ROGER E HECKAMAN ¤5364D14
13411 MRS SETH MAHRLE 5364197
6 13412 M KAPPLER 5364566
9 136D1 MICHAEL A SIMMONS ¤5364D56
0 13961 BRIAN PLATTE D 5368325
34 RESIDENCE 1 BUSINESS

N AUSTIN RD NAPOLN

3 49261

Target Street	Cross Street	Source
✓	-	Bresser's Cross-Index Directory

W AUSTIN RD 1982



20905 RAYMOND ROSS 4287490
7 RESIDENCE 1 BUSINESS

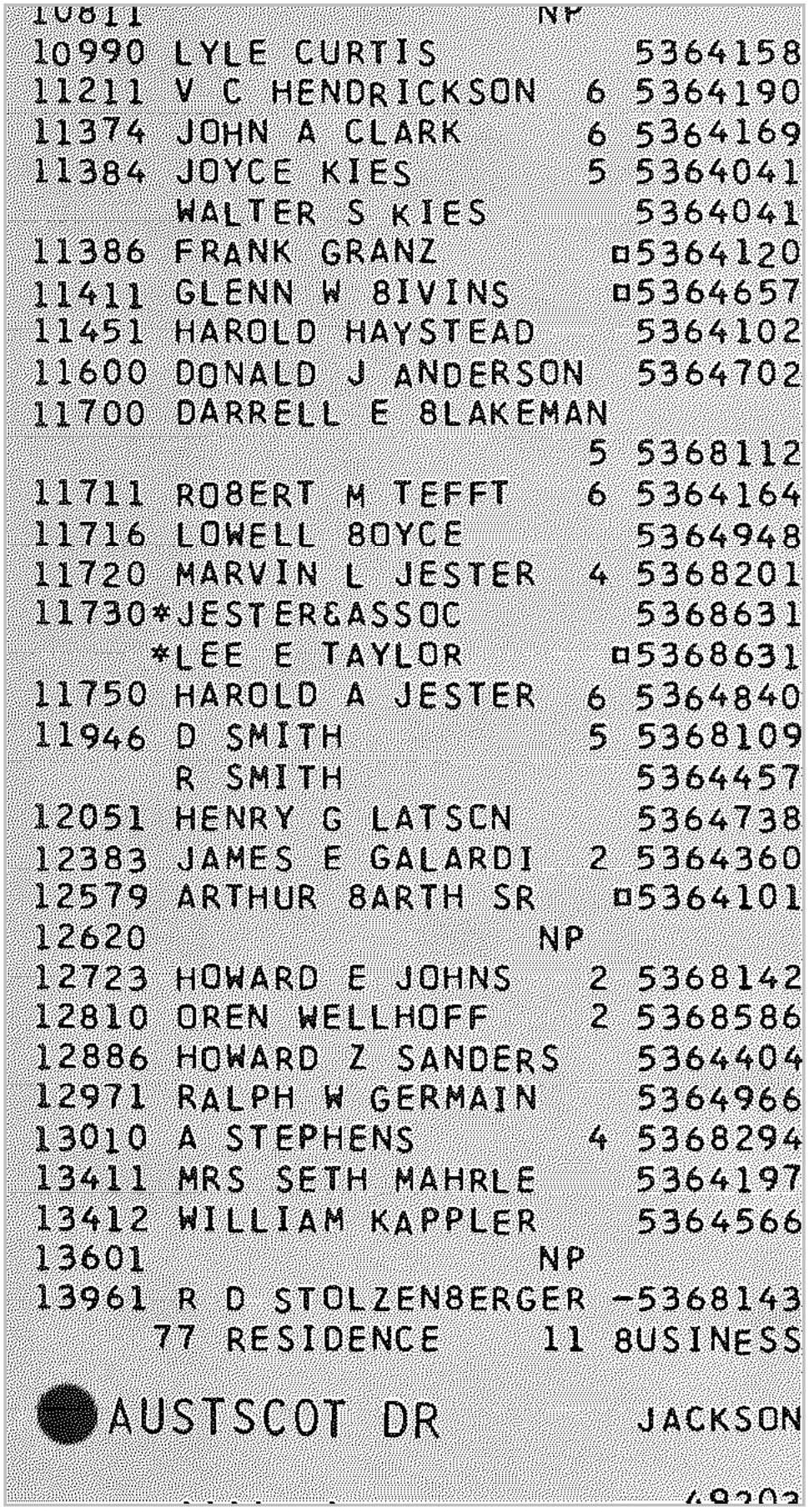
AUSTIN RD W 48158

14500 WILBUR FREY 4288879
14610 NP
14724 J NEIL LANTIS 4 4288532
15100*YOUTH CAMP DAINAVA ◘4287433
15300 ETHEL L LANAGAN 8 4287385
15521 MRS GAITA L CATHEY 4287671
15867 BEN MAURER 4288884
15999 NP
16000 KEN BRANCH 9 4287344
16160 WILLIAM L KEMNER 0 4288067
16521 TERRY WOODS 0 4287266
16530 L WASHBURNE 2 4288747
16924 JOSEPH HOLZHOFFER 4288111
16991 WILLIS HASSETT 4288817
17037 LEHMAN WAHL 4288886
17200 ELLEN KRAFTCHICK 3 4288400
17416 CLAR KRAFTCHICK 4287382
17509 NP
17547*VERHINES AUTO SALV 4288080
17590 NP
17610 GEORGE SHAW 9 4288968
17620 JOHN W MARTIN 8 4287748
17951*MANCH STAMPG CORP 4288301
18010 DAVID OESTERLING ◘4287783
18030 ANTHONY J RAFALSKI
9 4287248
18050 RUSSELL BRAUN 4288082
18089 STEVEN SCHLINGMANN ◘4289356
18101 RAY TROLZ 4288814
18243 C BROWN 9 4287700
18352 JAMES A THELEN 7 4287474
18424*KINSHIP HOMES INC ◘4289393
STEVE LJOVSHIN ◘4289393
18500 LESLIE PARR 7 4289168
18600*EAMES ANIMAL HSPTL 4287100
18646 RAYMOND SMITH ◘4288740
18879 WILLIAMS D POWELL 6 4288664
18883 NP
18885 RONALD E MANN 4288473
33 RESIDENCE S BUSINESS

BAKER RD 48158

Target Street	Cross Street	Source
✓	-	Bresser's Cross-Index Directory

AUSTIN RD 1977



Target Street	Cross Street	Source
✓	-	Bresser's Cross-Index Directory

W AUSTIN RD 1977

81 RESIDENCE 4 BUSINESS

AUSTIN RD MNCHSTR

MANCHESTER TWP

	.....		48158
14500	WILBUR FREY		4288879
14610	THOMAS H GORMLEY		4287546
14724	J NEIL LANTIS	4	4288532
15300	TERRY L APPS	¤	4287371
15521	MRS GAITA L CATHEY		4287671
15867	BEN MAURER		4288884
15999	PSTR T J MILES	¤	4288906
16000		NP	
16521	HAROLD KEASAL		4288880
16530	L WASHBURNE	2	4288747
16924	JOSEPH HOLZHOFFER		4288111
16991	WILLIS HASSETT		4288817
17037	LEHMAN WAHL		4288886
17200	ELLEN KRAFTCHICK	3	4288400
17416	CLAR KRAFTCHICK		4287382
17509	GEORGE SHAW	4	4288968
17547	*VERHINES AUTO SALV		4288080
17590		NP	
17610		NP	
17951	*MANCH STAMPG CORP		4288594
18050	RUSSELL BRAUN		4288082
18101	RAY TROLZ		4288814
18243	WAYNE TROLZ		4288992
18352	THOMAS A PARR	9	4288587
18424	LYNN E FLETCHER	¤	4287926
18600	*DR HENRY P EAMES		4287100
18646	E DOUGLAS WISNER	4	4288432
18879	WILLIAMS D POWELL	¤	4288664
18883		NP	
18885	*HIGGINS&SON DRCHRD	¤	4285041
	RONALD E MANN	0	4288473
20400	*THE GLASS SLIPPER		4288924

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Target Street	Cross Street	Source
✓	-	Bresser's Cross-Index Directory

AUSTIN RD 1972

	ROY R JOHNSON	5368528
10400	AL8ERT SOJACK	◘5364355
10700	RALPH H DAVIS	5364374
10791	RO8ERT KING	5364160
10807	JOSEPH STAMPER	◘5364501
10811	CARLOS GASKIN JR	5368580
10990	LYLE CURTIS	5364158
	MRS WALTER CURTIS	5364158
11211	A J HDFFMEISTER	5364606
11384	WALTER S KIES	5364041
11386	V LUKOMSKI	5364066
11451	HAROLD HAYSTEAD	5364102
11600	L A MURPHY	5364572
11716	LOWELL 8DYCE	5364948
11720	HAROLD A JESTER	5364840
11730*	RIVERVW MEATS INC	5364060
11750	MARVIN L JESTER	5368201
11946	DAVID RICHARDSON	◘5364329
	R SMITH	5364457
12051	HENRY G LATSDN	5364738
12383	JAMES E GALARDI	◘5364360
12579	EVERT 8ROWN	5368550
12620	WILLIAM H HAYDEN	◘5364081
12723	HOWARD E JOHNS	◘5368142
12810	OREN WELLHOFF	◘5368586
12886	HOWARD Z SANDERS	5364404
12971	RALPH W GERMAIN	5364966
13411	MRS SETH MAHRLE	KE64197
13412	WILLIAM KAPPLER	5364566
	M L STOKKA	5364566
13961	M J DELAND	5364737
NO #	C D HOLLAND	5364273
	66 RESIDENCE 10 8USINESS	

AUSTSCOT DR JACKSON

Target Street	Cross Street	Source
✓	-	Bresser's Cross-Index Directory

W AUSTIN RD 1972

73 RESIDENCE S 8USINESS

AUSTIN RD MNCHSTR

MANCHESTER TWP

48158

14500	WILBUR FREY		GA83064
14610	THDMAS H GORMLEY		GA83069
14724	J NEIL LANTIS		4285372
15100*	LITHUANIAN YTH CMP		4288394
15521	MRS GAITA L CATHEY		GA8S161
15867	8EN MAURER		GA83066
15999	REV THDMAS HICKS		4288906
16000	MINARO V DIVER		4288878
16521	HARDLO KEASAL		GA83067
16530	L WASH8URNE		4288747
16924	JDSEPH HDLZHOFFER		4288111
16991	WILLIS HASSETT		4288817
17037	LEHMAN WAHL		4288886
17416	C KRAFTCHICK		GA83261
17547*	8URKS IRON&METAL	¤	4288080
17951*	MANCH STAMPG CORP		4288594
18050	RUSSELL 8RAUN		4288082
18101	RAY TRDLZ		4282037
18243	WAYNE TROLZ		4282033
18352*	PARR III PRESERVE		4288587
18419	ANTON SCHLDSSER		4288522
18424	DDNALD H JD8E	0	4288071
	ZETTA N JD8E	0	4288071
	WM H SANDERS JR	0	4288071
18600	DR HENRY P EAMES		GA82241
18875*	VESCIOS SUPER MKT		4288657
18879	CDNRAD GDNYER	¤	4288664
18883		NP	
18885	RONALO E MANN	0	4288473
20400*	FIRELITE INN		4288924
20620	GEDRGE J CARPENTER	¤	4288095
20640	GERALO SWARTDUT		4288201
20641	EDWARD ROSS		4288246

W AUSTIN RD 1967

55 RESIDENCE 2 BUSINESS

AUSTIN RD MNCHSTR

MANCHESTER TWP

48158

14500 WILBUR FREY GA83064
14510 THOMAS H GORMLEY GA83069
14724 NEIL J LANTIS 4285372
15100 WAYNE STANLEY 4283065
*LITHUANIAN YTH CMP 4288394
15521 MRS G L CATHEY GA85161
15867 BEN MAURER GA83066
16000 MINARD V DIVER 4284238
16521 HAROLD KEASAL GA83067
16530 LILLIAN WASHBURNE GA84531
16924 JOSEPH HOLZHOFFER GA83062
16991 WILLIS HASSETT 4284532
17037 LEHMAN WAHL GA84205
17416 C KRAFTCHICK GA83261
17549*MENDIS IRON&METAL GA85171
17951*MANCH STAMPG CORP 4288594
18050 RUSSELL BRAUN 4282031
18101 RAY TROLZ 4282037
18243 WAYNE TROLZ 4282033
18352 LESLIE W PARR 4282034
18419*EARLY BIRDS FARM 4288147
ANTON SCHLOSSER 4288522
18424 ALLAN J FAULHABER 4288421
18600 DR HENRY P EAMES GA82241
18875*MANCHSTR CNTRY MKT 4289251
18879 RICHARD KUNTZ GA88170
18883 STANLEY COFFEY 4284535
18885*HIGGINS&SON ORCHRD GA85041

20640 GERALD SWARTOUT 4288201
20641 EDWEARD ROSS 4288246
20905 RAYMOND ROSS GA89021
25 RESIDENCE 7 BUSINESS

BAKER RD MNCHSTR

MANCHESTER TWP

48158

Not Reported
Not Reported
BROOKLYN, MI 49230

Inquiry Number: 7259096.5
March 02, 2023

The EDR-City Directory Image Report

EDR® Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

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City Directory Images

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

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available business directory data at approximately five year intervals.

RECORD SOURCES

The EDR City Directory Report accesses a variety of business directory sources, including Haines, InfoUSA, Polk, Cole, Bresser, and Stewart. Listings marked as EDR Digital Archive access Cole and InfoUSA records. The various directory sources enhance and complement each other to provide a more thorough and accurate report.

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	*Target Street*	*Cross Street*	*Source*
2020	☑	☐	Cole Information
	☑	☐	EDR Digital Archive
2017	☑	☐	Cole Information
2014	☑	☐	Cole Information
2010	☑	☐	Cole Information
2005	☑	☐	Cole Information
2000	☑	☐	Cole Information
1995	☑	☐	Cole Information
1992	☑	☐	Cole Information
1987	☑	☐	Bresser's Cross-Index Directory Company
1983	☑	☐	Bresser's Cross-Index Directory Company
1978	☑	☐	Bresser's Cross-Index Directory Company
1973	☑	☐	Bresser's Cross-Index Directory Company

FINDINGS

TARGET PROPERTY STREET

Not Reported
BROOKLYN, MI 49230

Year	*CD Image*	*Source*

HORNING RD

2020	pg A2	EDR Digital Archive
2017	pg A5	Cole Information
2014	pg A6	Cole Information
2010	pg A8	Cole Information
2005	pg A9	Cole Information
2000	pg A10	Cole Information
1995	pg A11	Cole Information
1992	pg A12	Cole Information
1987	pg A13	Bresser's Cross-Index Directory Company
1983	pg A14	Bresser's Cross-Index Directory Company
1978	pg A15	Bresser's Cross-Index Directory Company
1973	pg A16	Bresser's Cross-Index Directory Company

FINDINGS

CROSS STREETS

Year	*CD Image*	*Source*	
KUHL RD			
2020	-	Cole Information	Target and Adjoining not listed in Source
2017	-	Cole Information	Target and Adjoining not listed in Source
2014	-	Cole Information	Target and Adjoining not listed in Source
2010	-	Cole Information	Target and Adjoining not listed in Source
2005	-	Cole Information	Target and Adjoining not listed in Source
2000	-	Cole Information	Target and Adjoining not listed in Source
1995	-	Cole Information	Target and Adjoining not listed in Source
1992	-	Cole Information	Target and Adjoining not listed in Source
1987	-	Bresser's Cross-Index Directory Company	Street not listed in Source
1983	-	Bresser's Cross-Index Directory Company	Street not listed in Source
1978	-	Bresser's Cross-Index Directory Company	Street not listed in Source
1973	-	Bresser's Cross-Index Directory Company	Street not listed in Source

City Directory Images

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

HORNING RD 2020

11111	Kathleen Abbo
	Kelsey Lamson
	Shannon Abbo
11277	Richard Socha
11301	Amy Wallace
	CUSTOMIZED BUILDING
	Ryan Wallace
11475	Brenda Hudson
	Deborah Hudson
	Robert Hudson
11480	Mary Hallenbeck
11490	Brooke Luckhardt
	David Luckhardt
	John Ashley
	Susan Ashley
11495	Jane Turpen
	Shelley Edmiston
	William Garlick
11511	Stephanie Colton
	William Pankow
11514	Beverly Brzozowski
	Richard Brzozowski
11515	Bryce Wilson
	Traci Wilson
11540	Harold Mattis
	Janie Mattis
	Laura Mattis
	Will Mattis
11566	Julianne Mattis
	Mitchell Mattis
11583	Michael Stapish
11600	Deann Mattis
	Nancy Mattis
	Randy Mfattis
11611	Michael Stapish
11777	Sandra Grodi
	Steven Grodi
12225	John Golowic
12501	Amelia Kukla
	Lawrence Kukla
12515	Gary Schwab
	Gerry Schwab
	Sharon Schwab
12541	Alan Schwab
	Cathy Schwab
	Elizabeth Schwab
	Lindsay Schwab
12580	Michelle Canning
	Timothy Canning
12590	Michelle Canning

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

HORNING RD 2020 (Cont'd)

12590	Timothy Canning
12615	Jason Kuhn
	Rebekah Clark
12621	Gloria Deming
	James Young
12640	Andrea Barksdale
	Jeffrey Barksdale
12641	Catherine Stump
	Harry Stump
12650	Chad Barth
	Samantha Barth
12666	Angela Sando
	Sally Sando
	Steffanie Sando
12701	Brent Brininstool
	James Brininstool
	Phyllis Brininstool
12704	Danyelle Hotchkiss
	Helena Novack
	Sharron Hotchkiss
12717	Robert Groth
	Rosemary Groth
12720	Jess Nichols
	Kelley Nichols
12725	Kevin Schwab
12740	Herbert Davis
12867	Harold Smith
	Kaley Zimmerman
	Mark Disney
	Rebecca Disney
	Tyler Disney
12899	Janet Cushman
	Thomas Cushman
12961	Kevin Tanner
	Shelley Tanner
12979	Gloria Buckner
13465	Michelle Slack
	Sharron Bondy
13510	John Senkewitz
	Terry Senkewitz
13511	Ann Kobert
	Heather Donahee
	Scott Donahee
13515	Dawn McCourtie
	Dawn Morse
	Justin McCourtie
	Taylor Morse
	Vicky McCourtie
	William Morse
13525	Hal Vanwagner

Target Street	Cross Street	Source
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HORNING RD 2020 (Cont'd)

13525	Kristopher Dermyer
	Linda Schumacher
	Lynda Dermyer
13623	Desiree Dugan
	DMSC INC
	Jimmie Dugan
	Ladane Dugan
	Patricia Dugan
14431	Kathryn Everhart
	Timothy Everhart
14950	Christine Ashby

Target Street	Cross Street	Source
✓	-	Cole Information

HORNING RD 2017

11111	SILKWORTH, DORIS F
11277	SOCHA, RICHARD J
11301	WALLACE, RYAN E
11475	HUDSON, ROBERT T
11480	HALLENBECK, MICHAEL T
11490	LUCKHARDT, DAVID E
11495	TURPEN, ERIN L
11496	BURNHAM, DAVID K
11511	COMBS, SHANNON L
11514	BRZOZOWSKI, RICHARD J
11515	WILSON, TRACI M
11540	MATTIS, HAROLD M
11555	JONES, LARRY R
11566	MATTIS, MITCHELL J
11583	HOLBROOK, MARTIN G
11777	GRODI, STEVEN W
12225	GOLOWIC, JOHN M
12501	KUKLA, LAWRENCE M
12515	SCHWAB, GARY R
12541	SCHWAB, ALAN J
12580	CANNING, TIMOTHY G
12615	CLARK, BECKA
12621	DEMING, GLORIA D
12640	RUBLE L W & ASSOCIATES
	RUBLE, SHARON S
12641	STUMP, HARRY M
12650	BARTH, CHAD R
12666	MARSH, FRED M
12691	JONES, DAPHNE M
12701	BRININSTOOL, JAMES W
12717	GROTH, ROBERT L
12720	NICHOLS, MARTIN W
12725	SCHWAB, KEVIN
12740	DAVIS, HERBERT A
12867	DISNEY, MARK S
12899	CUSHMAN, THOMAS R
12961	TANNER, KEVIN J
12979	BUCKNER, GLORIA D
13321	WILLIAMS, VERNON L
13465	BONDY, SHARRON L
13510	SENKEWITZ, JOHN R
13511	BETHEL, TIMOTHY E
13515	TYLER, GERALD E
13516	LAMB, WILBER E
13525	DERMYER, PETE
13623	CLARK, E
	D M S C INCORPORATED
14431	RHEES, BRUCE D
14760	EBERSOLE, CASSANDRA D
14950	GLYNN TROLZ & ASSOCIATES

Target Street	Cross Street	Source
✓	-	Cole Information

HORNING RD 2014

11111 SILKWORTH, DORIS F
11277 SOCHA, RICHARD
11301 WALLACE, RYAN E
11475 HUDSON, ROBERT T
11480 HALLENBECK, MICHAEL T
HDE HALLENBECK DESIGN & ENGINEERING
11490 LUCKHARDT, DAVID E
11495 HARMAN, DANIEL L
11496 BURNHAM, DAVID K
11511 COMBS, SHANNON L
11514 BRZOZOWSKI, RICHARD J
11515 WILSON, BRYCE E
11540 MATTIS, HAROLD M
11555 JONES, LARRY R
11566 MATTIS, MITCHELL J
11583 STAPISH, JOHN W
11600 OCCUPANT UNKNOWN,
11611 OCCUPANT UNKNOWN,
11777 GRODI, STEVEN W
12225 GOLOWIC, JOHN M
12501 KUKLA, LAWRENCE A
12515 SCHWAB, GARY R
12541 SCHWAB, ALAN J
12580 CANNING, TIMOTHY G
12594 EIGHMEY, SCOTT D
12615 KENDALL, BETTY L
12621 WEBER, JOHN N
12640 RUBLE, SHARON S
12641 STUMP, HARRY M
12650 OCCUPANT UNKNOWN,
WILLOW CREEK CONSTRUCTION
12666 MARSH, FRED M
12691 CASHIN, JOHN D
12701 BRININSTOOL, JAMES W
12704 EBERTS-FIELD, KRISTIE L
12717 GROTH, ROSEMARY L
12720 MILLER KENNETH W RESIDENTIAL BUILDER
SOKOLL, NIKOLE C
12725 SCHWAB, KEVIN
12740 DAVIS, HERBERT A
12867 DISNEY, MARK S
12899 CUSHMAN, THOMAS R
12961 TANNER, KEVIN J
12979 BUCKNER, GLORIA D
13321 WILLIAMS, VERNON L
13465 BONDY, SHARRON L
13510 SENKEWITZ, JOHN R
13511 BETHEL, TIMOTHY E
13515 TYLER, JAIDEN
13516 LAMB, WILBER E

Target Street	Cross Street	Source
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HORNING RD 2014 (Cont'd)

13525 SCHUMACHER, JAMES F
13623 D M S C INCORPORATED
DUGAN, LYNN
13720 MCLAUGHLIN, N
14431 RHEES, BRUCE D
14760 EBERSOLE, CASSANDRA D
14950 GLYNN TROLZ & ASSOCIATES

Target Street	Cross Street	Source
✓	-	Cole Information

HORNING RD 2010

11111	SILKWORTH, DORIS F
11277	SOCHA, SUE
11475	HUDSON, ROBERT T
11480	HDE HALLENBECK DSGN & ENGRG
11490	LUCKHARDT, DAVID E
11496	BURNHAM, DAVID K
11514	BRZOZOWSKI, RICHARD J
11515	WILSON, BRYCE W
11555	JONES, LARRY R
11583	STAPISH, MIKE T
11611	STAPISH, JOHN W
11777	GRODI, STEVEN W
12225	GOLOWIC, JOHN M
12501	KUKLA, LAWRENCE A
12515	SCHWAB, GARY R
12541	SCHWAB, ALAN J
12580	CANNING, TIMOTHY G
12594	EIGHMEY, SCOTT D
12615	KENDALL, BETTY L
12640	L W RUBLE & ASSOC INC
	RUBLE, SHARON S
12641	STUMP, HARRY M
12691	CASHIN, JOHN D
12701	BRININSTOOL, JAMES W
12704	FIELD, KRISTIE L
12717	GROTH, ROBERT L
12720	MILLER, KENNETH W
12740	DAVIS, HERBERT A
12867	DISNEY, MARK S
12899	CUSHMAN, THOMAS R
12961	TANNER, KEVIN J
12979	BUCKNER, GLORIA D
13321	WILLIAMS, VERNON L
13465	BONDY, SHARRON L
13510	SENKEWITZ, TERRY A
13511	GILLOW, ROBERT L
13515	CARPENTER, MORRIS M
13516	LAMB, WILBER E
13525	SCHUMACHER, JAMES F
13623	DMSC INC
	DUGAN, PATRICIA L
13720	MCLAUGHLIN, N
14431	RHEES, BRUCE D
14760	SHONG, RICHARD E
14950	GLYNN TROLZ & ASSOC

Target Street	Cross Street	Source
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HORNING RD 2005

11111 SILKWORTH, CHESTER W
11277 MARCINKOWSKI, ROBERT
11475 HUDSON, ROBERT T
11480 HALLENBECK, MICHAEL T
HDE HALLENBECK DESIGN & ENGINE
11490 ULLRICH, UTE G
11495 GARLICK, WILLIAM E
11496 BURNHAM, DAVID K
11511 PANKOW, WILLIAM J
11514 BRZOZOWSKI, RICHARD J
11515 WILSON, BRYCE W
11540 MATTIS, HAROLD M
11555 JONES, LARRY R
11583 STAPISH, MIKE T
11600 MATTIS, MICHAEL S
11777 GRODI, STEVEN W
STEVE GRODI CONSTRUCTION
12225 CREGER, MICHAEL L
12501 SLICK, MIKE E
12515 SCHWAB, GARY R
12541 SCHWAB, ALAN J
12580 CANNING, TIMOTHY G
12615 KENDALL, BETTY L
12640 RUBLE L W & ASSOCIATES INC
RUBLE, LARRY W
12641 STUMP, HARRY M
12650 BLANCHARD, THOMAS
SERV ALL BUILDERS
SERVICE ALL BUILDERS
12691 CASHIN, JOHN D
12701 BRININSTOOL, JAMES W
12704 FIELD, ROGER S
12717 GROTH, ROSEMARY L
12720 MILLER, KENNETH W
RESIDENTIAL BUILDER
12725 HANSON, TIMOTHY
12867 DISNEY, MARK S
12899 CUSHMAN, THOMAS R
12961 TANNER, SHELLEY K
12979 BUCKNER, GLORIA D
13510 SENKEWITZ, TERRY A
13511 GILLOW, ROBERT L
13515 TIETSEMA, RONALD
13525 LAMB, WILBUR
13623 DUGAN, JIMMIE L
13720 RHEES, BRUCE
14431 BLOOM, LAWRENCE F
14760 SHONG, RICHARD E

Target Street	Cross Street	Source
✓	-	Cole Information

HORNING RD 2000

11111	SILKWORTH, CHESTER W
11495	GAETZI, JAMES
11511	PANKOW, WILLIAM
11514	BRZOZOWSKI, RICHARD L
11540	L M MEDICAL TRANSCRIPTION
11555	JONES, LARRY
11583	STAPISH, M
11611	STAPISH, JOHN
11777	GRODI, STEVE
12225	SALLY, ROBERT L
12501	CREGER, MICHAEL
12515	SCHWAB, GARY
12541	SCHWAB, ALAN
12580	LENNOX, THOMAS
12615	KENDALL, CHARLES E
12621	WEBER, JOHN
12640	L W RUBLE & ASSOCIATES INCORPORATED
	RUBLE L W & ASSOCIATES
	RUBLE, LARRY W
12641	STUMP, HARRY M
12650	BRIGGS, MURRAY B
12691	CASHIN, JOHN D
12701	BRININSTOOL, JAMES
12704	FIELD, ROGER
12717	ARMSTRONG, EDWIN R
	EWALD, MARTIN
	SUDEMAR SERVICES
12720	MILLER KENNETH W RESIDENTIAL BUILDER
	MILLER, KENNETH W
12740	DAVIS, AL
13510	SENKEWITZ, TERRY A
13525	LAMB, WILBUR
13623	DUGAN, JIM
	DUGANS MANAGEMENT COMPANY
14950	TROLZ GLYNN & ASSOCIATES

Target Street	Cross Street	Source
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HORNING RD 1995

11111	SILKWORTH, CHESTER W
11475	HUDSON, ROBERT
11480	HOWELL, J
	LUCK, A
11495	GAETZI, JAMES
11511	PANKOW, WILLIAM
11514	BRZOZOWSKI, RICHARD L
11555	JONES, LARRY
11583	JONES, GAIL L
11611	STAPISH, JOHN
11777	GRODI, STEVE
12501	CREGER, MICHAEL
12515	SCHWAB, GARY
12541	SCHWAB, ALAN
12580	LENNOX, THOMAS
12615	KENDALL, CHARLES E JR
12621	WEBER, JOHN
12640	L W RUBLE&ASSOC
	RUBLE, LARRY W
12650	BRIGGS, MURRAY B
12691	CASHIN, JOHN D
12701	BRININSTOOL, JAMES
12704	FIELD, ROGER
12717	ARMSTRONG, EDWIN
	SUDEMAR SERVICES
12740	KENNETH W MILLER BUILDER
13510	SENKEWITZ, JOHN R
13525	LAMB, WILBUR

Target Street	Cross Street	Source
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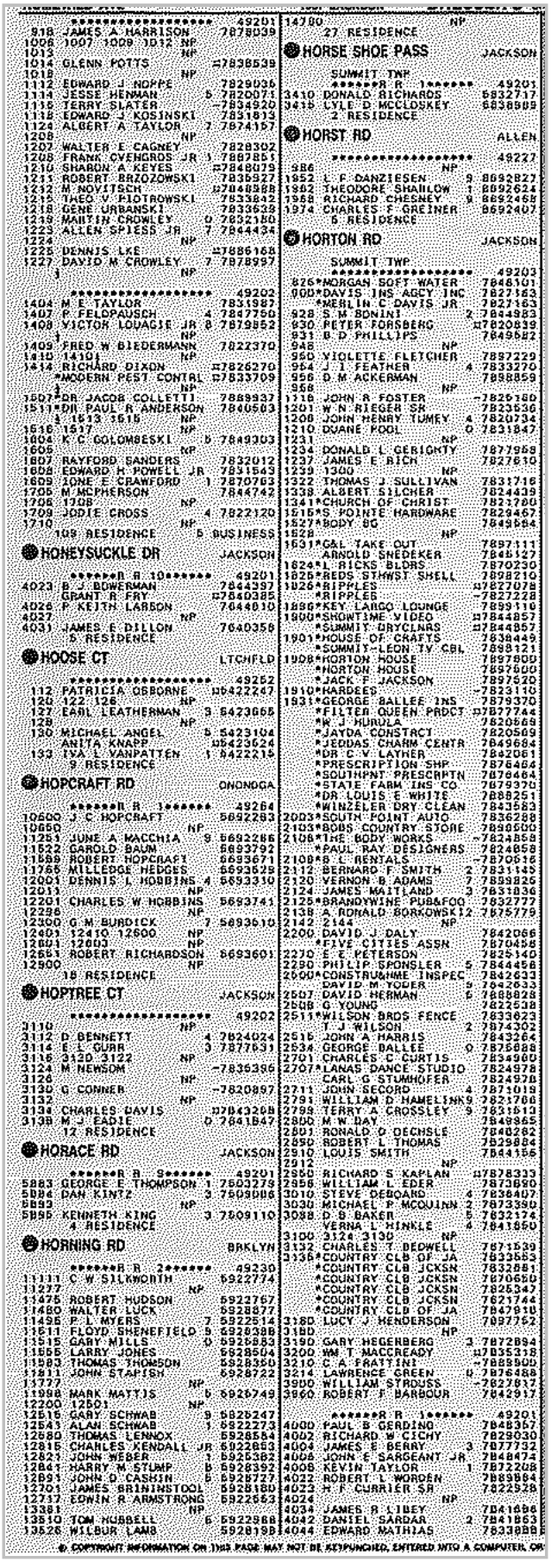
HORNING RD 1992

11111	SILKWORTH, CHESTER W
11475	HUDSON, ROBERT
11480	LUCK, JOANNE
11495	GAETZI, JAMES
11511	SHENEFIELD, FLOYD
11514	BRZOZOWSKI, RICHARD L
11515	MILLS, GARY
11540	MATTIS, MARK
11555	JONES, LARRY
11611	STAPISH, JOHN
11777	CLARK&CO
	WILLARD, DAVID
12515	SCHWAB, GARY
12541	SCHWAB, ALAN
12580	LENNOX, THOMAS
12615	KENDALL, CHARLES E JR
12621	WEBER, JOHN
12640	RUBLE, LARRY W
12650	BRIGGS, MURRAY B
12691	CASHIN, JOHN D
12701	BRININSTOOL, JAMES
12704	FIELD, ROGER
12717	ARMSTRONG, EDWIN R
12740	K W MILLER BLDR
	MILLER, KENNETH W
13510	SENKEWITZ, JOHN R
13525	LAMB, WILBUR

HORNING RD 1987



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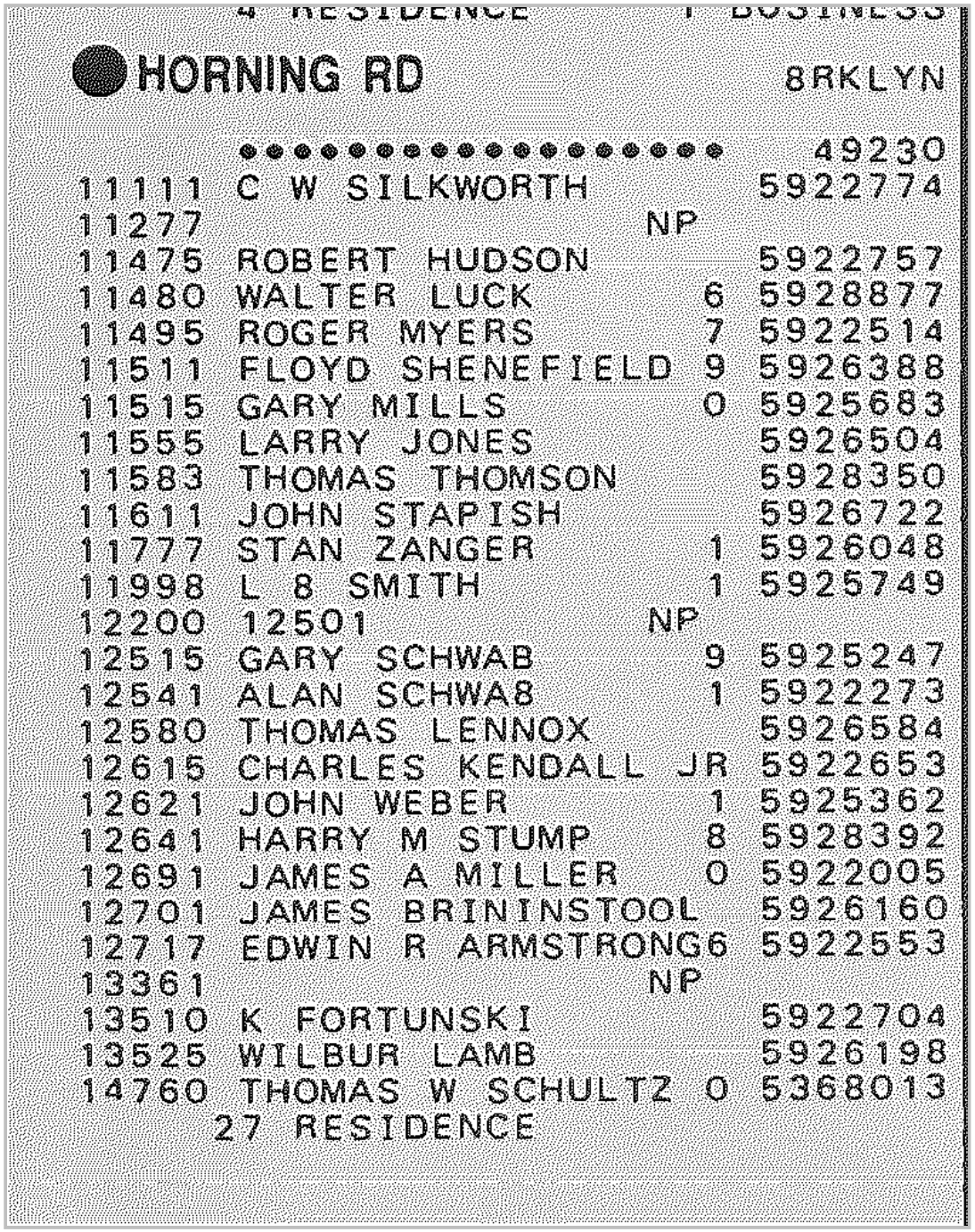
HORNING RD 1983



4 RESIDENCE 1 BUSINESS

HORNING RD 8RKLYN

	●●●●●●●●●●●●●●●●●●●		49230
11111	C W SILKWORTH		5922774
11277		NP	
11475	ROBERT HUDSON		5922757
11480	WALTER LUCK	6	5928877
11495	ROGER MYERS	7	5922514
11511	FLOYD SHENEFIELD	9	5926388
11515	GARY MILLS	0	5925683
11555	LARRY JONES		5926504
11583	THOMAS THOMSON		5928350
11611	JOHN STAPISH		5926722
11777	STAN ZANGER	1	5926048
11998	L 8 SMITH	1	5925749
12200	12501	NP	
12515	GARY SCHWAB	9	5925247
12541	ALAN SCHWA8	1	5922273
12580	THOMAS LENNOX		5926584
12615	CHARLES KENDALL JR		5922653
12621	JOHN WEBER	1	5925362
12641	HARRY M STUMP	8	5928392
12691	JAMES A MILLER	0	5922005
12701	JAMES BRININSTOOL		5926160
12717	EDWIN R ARMSTRONG	6	5922553
13361		NP	
13510	K FORTUNSKI		5922704
13525	WILBUR LAMB		5926198
14760	THOMAS W SCHULTZ	0	5368013

27 RESIDENCE

Target Street	Cross Street	Source
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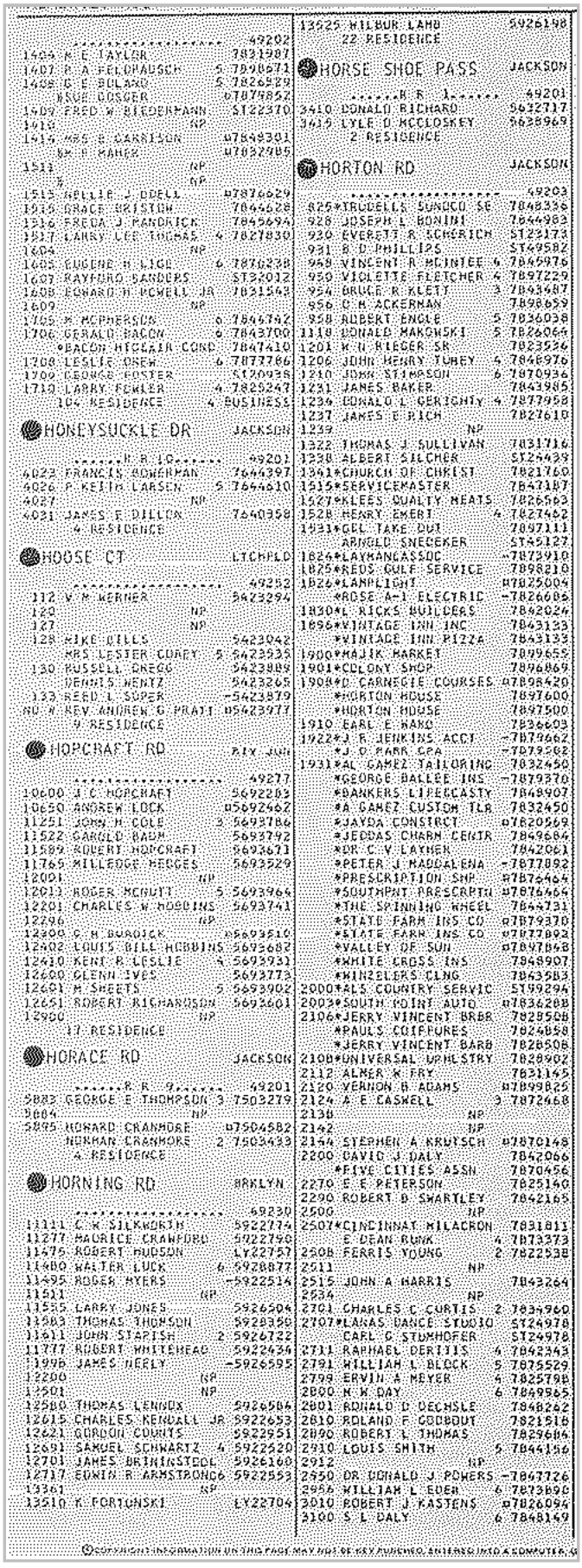
HORNING RD 1978



.....49202
1404 K E TAYLOR 7831987
1407 P A FELDHAUSER S 7898671
1408 G E BOLAND S 7826529
NSUE DOSSER @7879852
1409 FRED W BIEDERMANN ST22370
1410 NP
1414 MRS B GARRISON @7848301
M P MAHER @7892985
1511 NP
NP
1515 NELLIE J ODELL @7876629
1516 GRACE BRISTOW 7844628
1516 FREDA J MANDRICK 7845694
1517 LARRY LEE THOMAS 4 7827830
1604 NP
1605 EUGENE R LIGE 6 7876238
1607 RAYFORD SANDERS ST32012
1608 EDWARD H POWELL JR 7831543
1609 NP
1705 M MCPHERSON 6 7844742
1706 GERALD BACON 6 7843700
*BACON HIGGAIN CORP 7847410
1708 LESLIE OSEW 6 7877786
1709 GEORGE FOSTER S1709938
1710 LARRY FEWLER 4 7825247
104 RESIDENCE 4 BUSINESS

HONEYSUCKLE DR JACKSON

.....R R 10.....99201
4022 FRANCIS BOWERMAN 7844397
4026 P KEITH LARSEN S 7844610
4027 NP
4031 JAMES E DILLON 7840358
4 RESIDENCE

HOOSE CT LTCHFLD

.....49252
112 V M KERNER 5423294
120 NP
127 NP
128 MIKE DILLS 5423042
MRS LESTER COREY S 5423935
130 RUSSELL DREGG 5423889
DENNIS WENTZ 5423265
133 REED L SUPER -5423879
RD R REV ANDREW G PRATT @5423977
9 RESIDENCE

HOPCRAFT RD RIV JNC

.....49277
10600 J C HOPCRAFT 5692283
10650 ANDREW LOCK @5692462
11251 JOHN M COLE 3 5693786
11522 GAROLD BAUM 5693792
11589 ROBERT HOPCRAFT 5693671
11765 MILLEDGE HEDGES 5693529
12001 NP
12012 ROGER MCGUIT S 5693964
12201 CHARLES W HOBBINS 5693741
12296 NP
12300 C M BURDICK @5693510
12402 LOUIS BILL HOBBINS 5693682
12410 KENT R LESLIE 4 5693931
12600 GLENN IVES 5693773
12691 M SHEETS S 5693902
12651 ROBERT RICHARDSON 5693601
12900 NP
17 RESIDENCE

HORACE RD JACKSON

.....R R 9.....49201
9883 GEORGE E THOMPSON 3 7503279
9884 NP
9895 HOWARD CRANMORE @7504582
NORMAN CRANMORE 2 7503433
4 RESIDENCE

HORNING RD BRKLYN

.....69230
11111 C K SILKWORTH 5922774
11277 MAURICE CRAWFORD 5922790
11475 ROBERT HUDSON LY22757
11480 WALTER LUCK 6 5928877
11495 ROGER MYERS -5922514
11511 NP
11555 LARRY JONES 5926504
11583 THOMAS THOMSON 5928350
11611 JOHN STAPISH 2 5926722
11777 ROBERT WHITEHEAD 5922434
11996 JAMES NERLY -5926595
12200 NP
12501 NP
12580 THOMAS LENNOX 5926584
12615 CHARLES KENDALL JR 5922653
12621 GORDON COUNTS 5922951
12691 SAMUEL SCHWARTZ 4 5922520
12701 JAMES BRININSTOOL 5926160
12717 EDWIN R ARMSTRONG 6 5922553
13361 NP
13510 K FORTUNSKI LY22704
13625 WILBUR LAMB 5926198
22 RESIDENCE

HORSE SHOE PASS JACKSON

.....R R 1.....49201
3410 DONALD RICHARD 5432717
3419 LYLE D MCCLOSKEY 5638969
2 RESIDENCE

HORTON RD JACKSON

.....49203
825*TRUDELLS SUNOCO SE 7848336
928 JOSEPH L BONINI 7844983
930 EVERETT R SCHERICH ST23173
931 B D PHILLIPS ST49582
959 VINCENT R MCINTEE 4 7845976
959 VIOLETTE FLETCHER 4 7897229
954 BRUCE R KLETT 3 7843687
956 C M ACKERMAN 7898659
958 ROBERT ENGLE 5 7836038
1110 DONALD MAKOWSKI 5 7826066
1201 K N RIEGER SR 7823526
1206 JOHN HENRY TUREY 4 7846976
1210 JOHN STIMPSON 6 7870936
1231 JAMES BAKER 7843985
1234 DONALD L GERIGHTY 4 7877958
1237 JAMES E RICH 7827610
1239 NP
1322 THOMAS J SULLIVAN 7831716
1230 ALBERT SILCHER ST24439
1341*CHURCH OF CHRIST 7821760
1515*SERVICEMASTER 7847187
1527*KLEES QUALTY MEATS 7826563
1528 HEARY EMERT 4 7827462
1931*GEL TAKE OUT 7897111
ARNOLD SNEDEKER ST45127
1824*LAYMANGASSOC -7873910
1825*REDS GULF SERVICE 7898210
1826*LAMPLIGHT @7825004
*ROSE A-1 ELECTRIC -7826086
1830*L RICKS BUILDERS 7842024
1896*VINTAGE INN INC 7843133
*VINTAGE INN PIZZA 7843133
1900*MAJIK MARKET 7899655
1901*COLONY SHOP 7896869
1908*D CARNEGIE COURSES @7898420
*HORTON HOUSE 7897600
*HORTON HOUSE 7897500
1910 EARL E NAKO 7836603
1922*J R JENKINS ACCT -7877662
*J O PARR CPA -7879568
1931*AL GAMEZ TAILORING 7832450
*GEORGE BALLEE INS -7879370
*BANKERS LIFECASTY 7848907
*A GAMEZ CUSTOM TLR 7832450
*JAYDA CONSTRCT @7820269
*JEDDAS CHARM CENTR 7849684
*DR C V LAYMEN 7842061
*PETER J MADDALENA -7877892
*PRESCRIPTION SHP @7876464
*SOUTHPAT PRESCRPTN @7876464
*THE SPINNING WHEEL 7844731
*STATE FARM INS CO @7879370
*STATE FARM INS CO @7877892
*VALLEY OF SUN @7897848
*WHITE CROSS INS 7848907
*WINZELERS CLNG 7843583
2000*ALS COUNTRY SERVIC 5799294
2003*SOUTH POINT AUTO @7836208
2106*JERRY VINCENT BRBR 7828508
*PAULS COIFFURES 7824858
*JERRY VINCENT BARB 7828508
2108*UNIVERSAL UPHLSTRY 7828902
2112 ALMER K FRY 7831145
2120 VERNON B ADAMS @7899825
2124 A E CASWELL 3 7872468
2138 NP
2142 NP
2144 STEPHEN A KRUTSCH @7870148
2200 DAVID J DALY 7842066
*FIVE CITIES ASSN 7870456
2270 E E PETERSON 7825140
2290 ROBERT D SWARTLEY 7842165
2500 NP
2507*CINCINNAT MILACRON 7831811
E DEAN RUNK 4 7873373
2508 FERRIS YOUNG 2 7822538
2511 NP
2515 JOHN A HARRIS 7843264
2534 NP
2701 CHARLES C CURTIS 2 7834960
2707*LANAS DANCE STUDIO ST24978
CARL C STUMHOFER ST24978
2711 RAPHAEL DERTIS 4 7842343
2791 WILLIAM L BLOCK 5 7875529
2799 ERVIN A MEYER 4 7825798
2800 N W DAY 6 7849865
2801 RONALD D DECHSLE 7848262
2810 ROLAND F COUBOUT 7821518
2890 ROBERT L THOMAS 7829684
2910 LOUIS SMITH 5 7844156
2912 NP
2950 DR DONALD J POWERS -7847726
2956 WILLIAM L EDER 6 7873890
3010 ROBERT J KASTENS @7826094
3100 S L DALY 6 7848149

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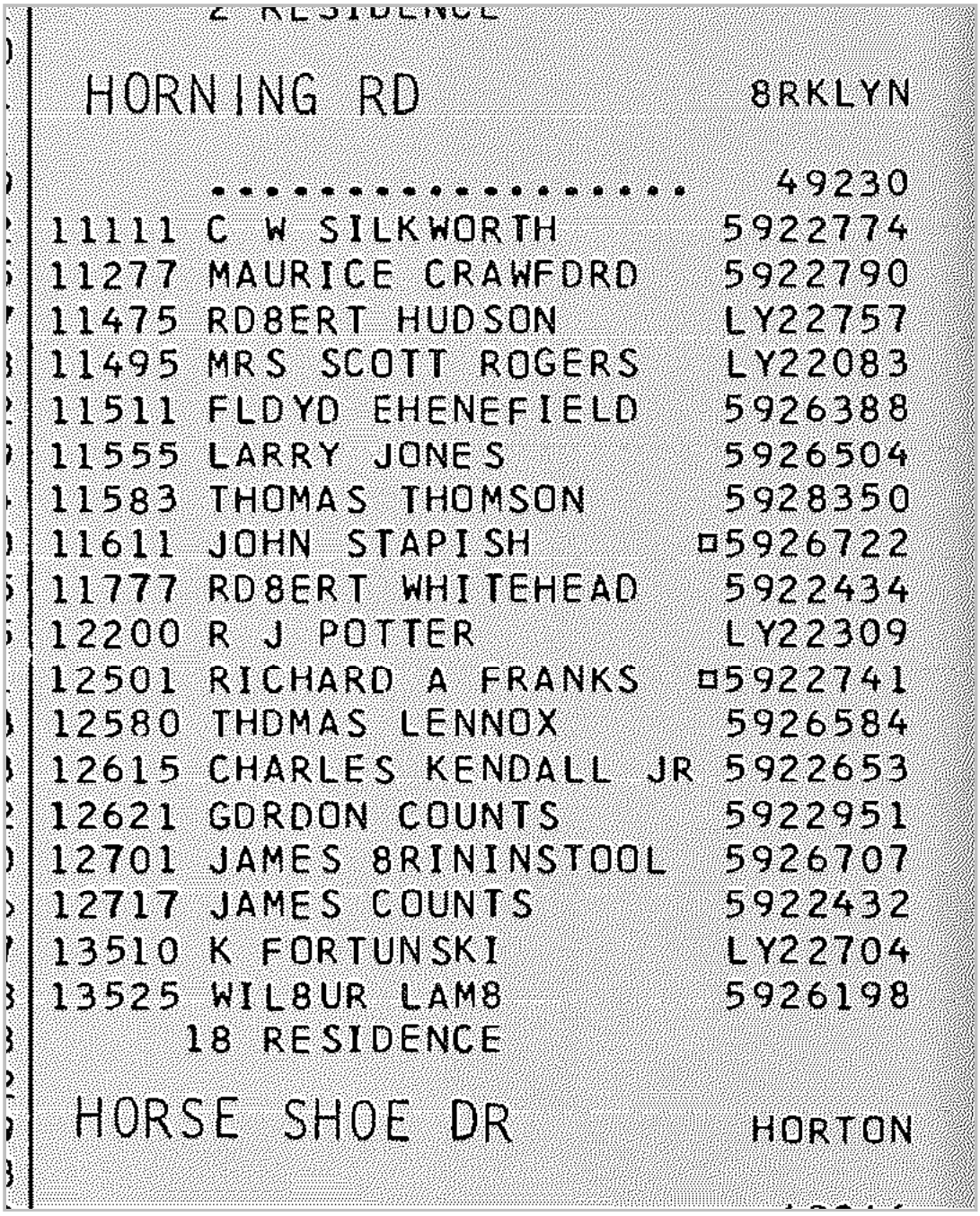
HORNING RD 1973



2 RESIDENCE

HORNING RD 8RKLYN

49230

11111 C W SILKWORTH 5922774
11277 MAURICE CRAWFORD 5922790
11475 RD8ERT HUDSON LY22757
11495 MRS SCOTT ROGERS LY22083
11511 FLOYD EHENEFIELD 5926388
11555 LARRY JONES 5926504
11583 THOMAS THOMSON 5928350
11611 JOHN STAPISH □5926722
11777 RD8ERT WHITEHEAD 5922434
12200 R J POTTER LY22309
12501 RICHARD A FRANKS □5922741
12580 THOMAS LENNOX 5926584
12615 CHARLES KENDALL JR 5922653
12621 GORDON COUNTS 5922951
12701 JAMES 8RININSTOOL 5926707
12717 JAMES COUNTS 5922432
13510 K FORTUNSKI LY22704
13525 WIL8UR LAM8 5926198

18 RESIDENCE

HORSE SHOE DR HORTON

Not Reported

Not Reported

BROOKLYN, MI 49230

Inquiry Number: 7259096.4

February 21, 2023

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Shelton, CT 06484
Toll Free: 800.352.0050
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02/21/23

Site Name:	Client Name:
Not Reported	Applied Science & Technology
Not Reported	10448 Citation Drive
BROOKLYN, MI 49230	Brighton, MI 48116
EDR Inquiry # 7259096.4	Contact: Laura Gray

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Applied Science & Technology were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:		*Coordinates:*	
P.O.#	NA	**Latitude:**	42.122683 42° 7' 22" North
Project:	1-12691	**Longitude:**	-84.145119 -84° 8' 42" West
		UTM Zone:	Zone 16 North
		UTM X Meters:	735989.72
		UTM Y Meters:	4667342.84
		Elevation:	1000.88' above sea level

Maps Provided:

2019
2017
2014
1980
1949
1948

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2019 Source Sheets

Onsted
2019
7.5-minute, 24000

Norvell
2019
7.5-minute, 24000

Tipton
2019
7.5-minute, 24000

Manchester
2019
7.5-minute, 24000

2017 Source Sheets

Onsted
2017
7.5-minute, 24000

Norvell
2017
7.5-minute, 24000

Tipton
2017
7.5-minute, 24000

Manchester
2017
7.5-minute, 24000

2014 Source Sheets

Onsted
2014
7.5-minute, 24000

Norvell
2014
7.5-minute, 24000

Tipton
2014
7.5-minute, 24000

Manchester
2014
7.5-minute, 24000

1980 Source Sheets

Onsted
1980
7.5-minute, 24000
Aerial Photo Revised 1975

Norvell
1980
7.5-minute, 24000
Aerial Photo Revised 1975

Manchester
1980
7.5-minute, 24000
Aerial Photo Revised 1975

Tipton
1980
7.5-minute, 24000
Aerial Photo Revised 1975

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1949 Source Sheets

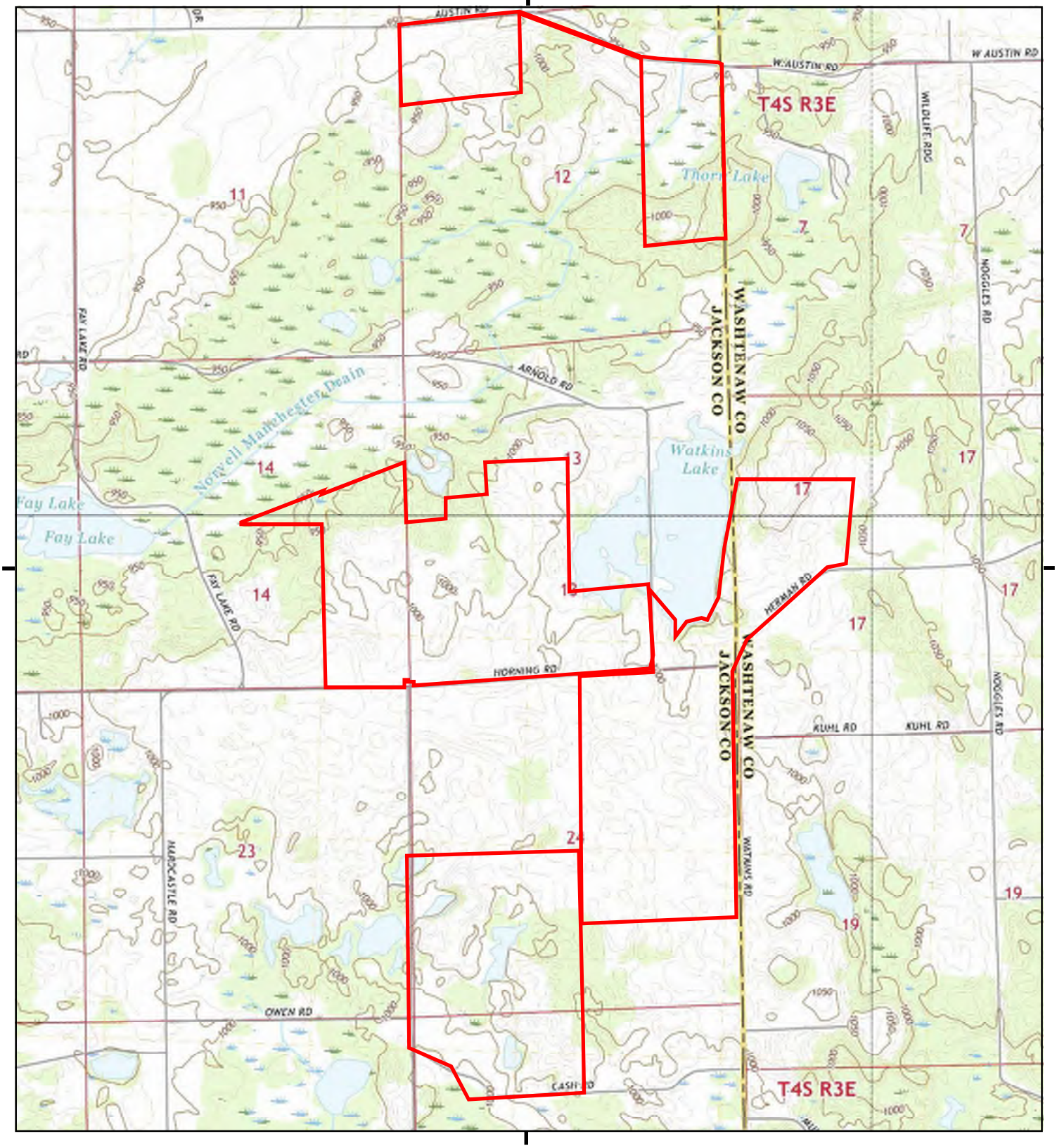
Manchester
1949
15-minute, 62500
Aerial Photo Revised 1940

1948 Source Sheets

Manchester
1948
15-minute, 62500
Aerial Photo Revised 1940

Historical Topo Map

2019



This report includes information from the following map sheet(s).

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NW N NE
W E
SW S SE

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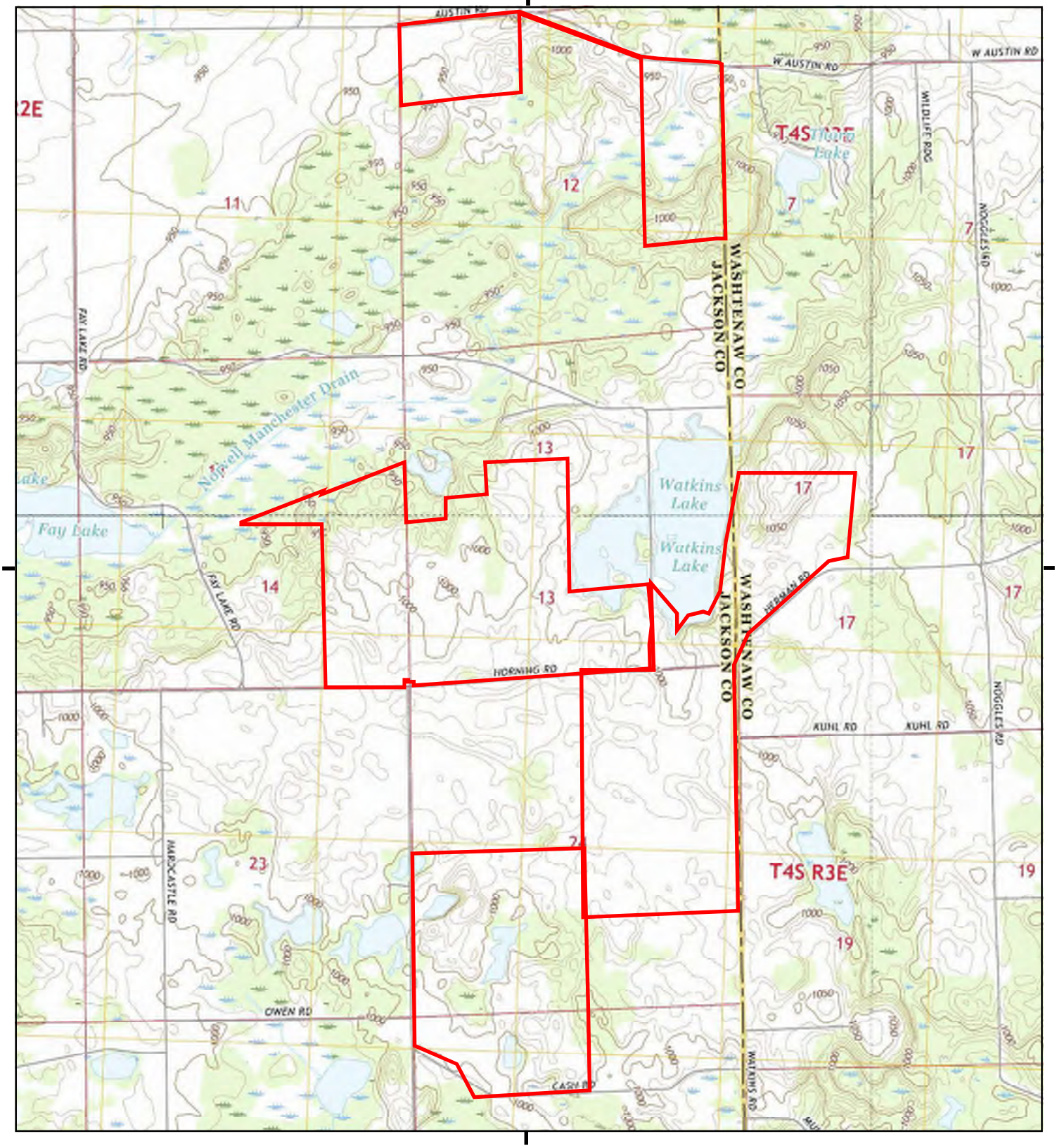
NE, Manchester, 2019, 7.5-minute
SE, Tipton, 2019, 7.5-minute
NW, Norvell, 2019, 7.5-minute

SITE NAME: Not Reported
ADDRESS: Not Reported
BROOKLYN, MI 49230
CLIENT: Applied Science & Technology

N

Historical Topo Map

2017



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SW S SE

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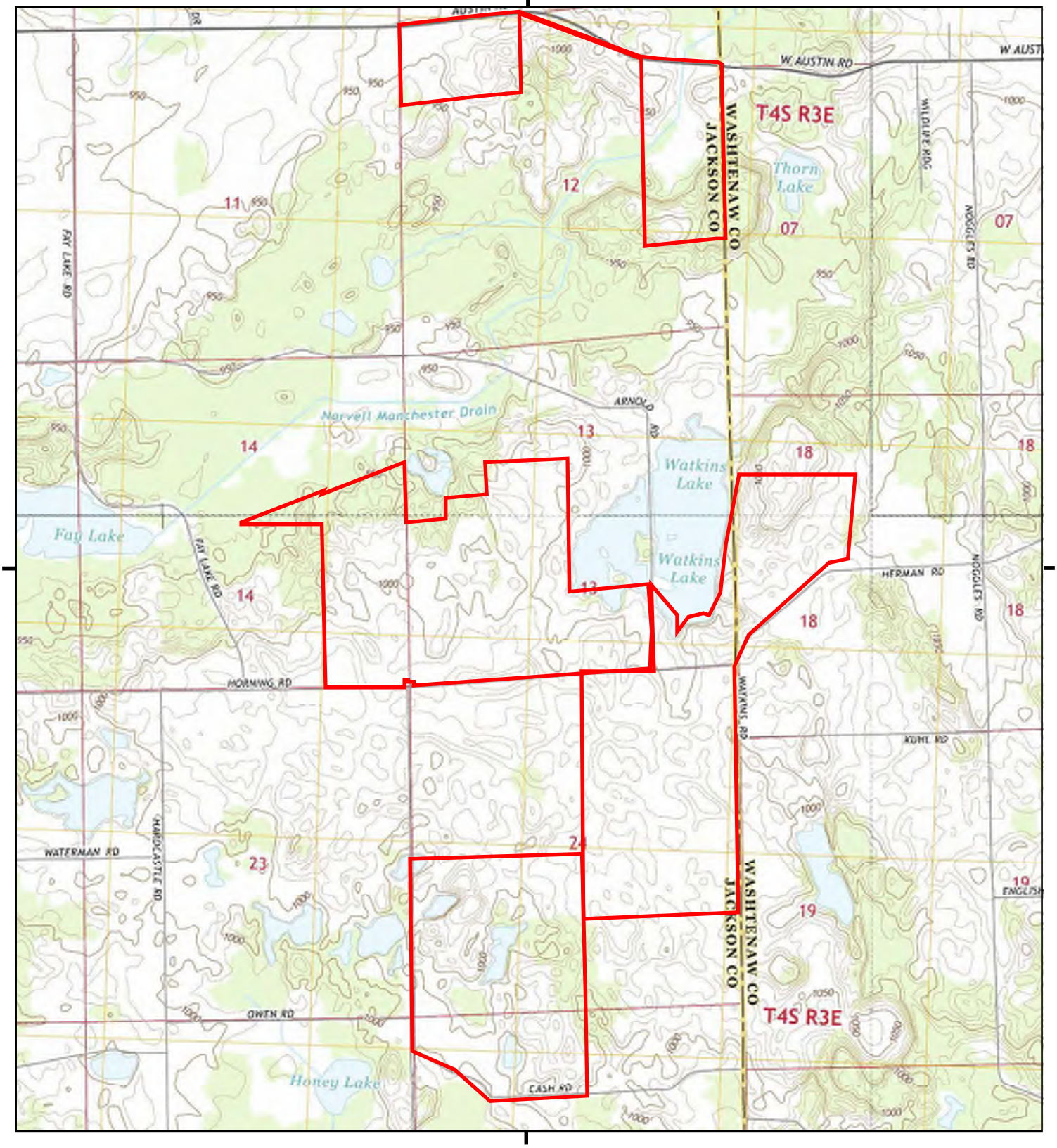
SE, Tipton, 2017, 7.5-minute
NW, Norvell, 2017, 7.5-minute

SITE NAME: Not Reported
ADDRESS: Not Reported
BROOKLYN, MI 49230
CLIENT: Applied Science & Technology

N

Historical Topo Map

2014



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SW S SE

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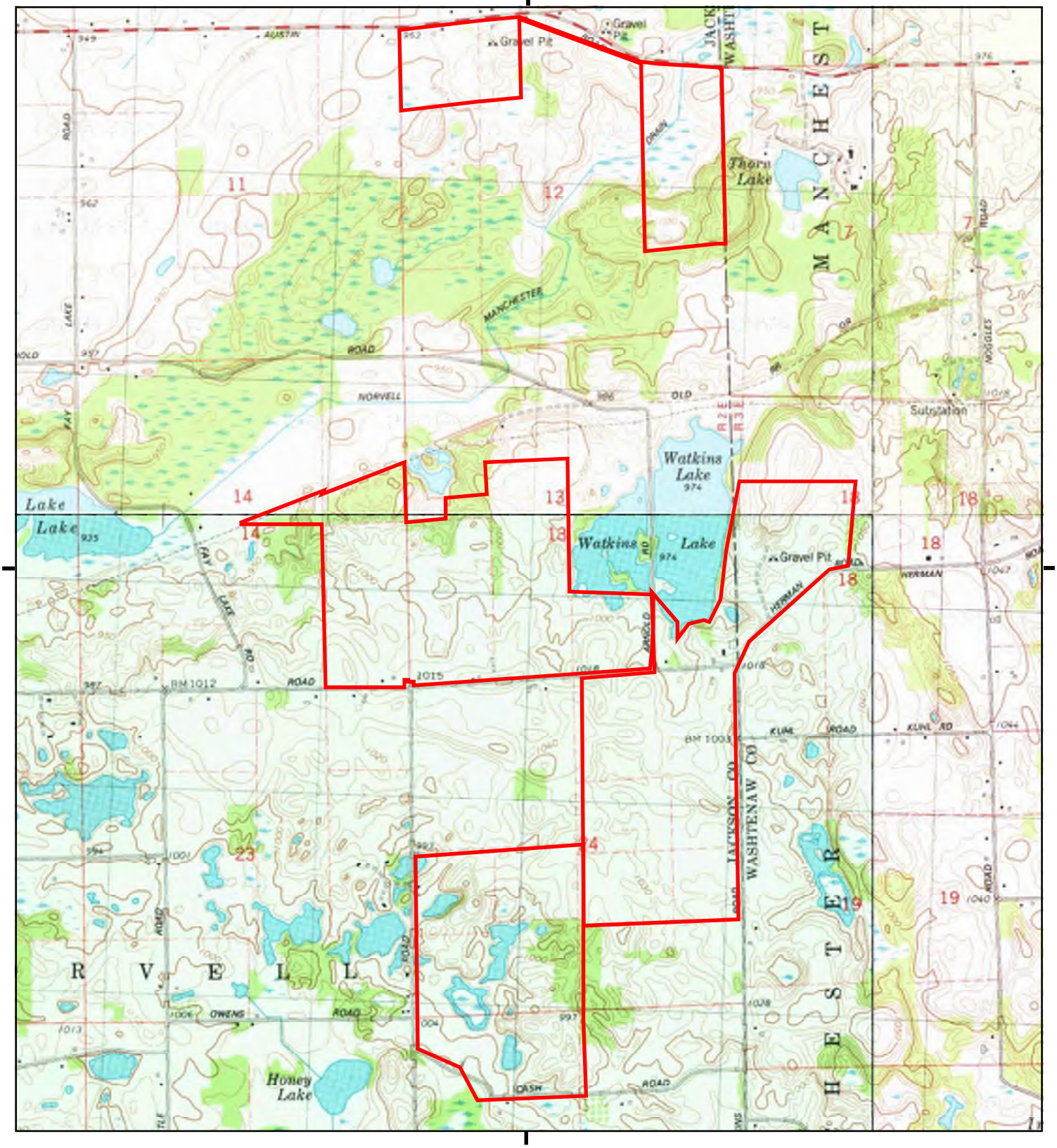
SE, Tipton, 2014, 7.5-minute
NW, Norvell, 2014, 7.5-minute

SITE NAME: Not Reported
ADDRESS: Not Reported
BROOKLYN, MI 49230
CLIENT: Applied Science & Technology

N

Historical Topo Map

1980



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SW S SE

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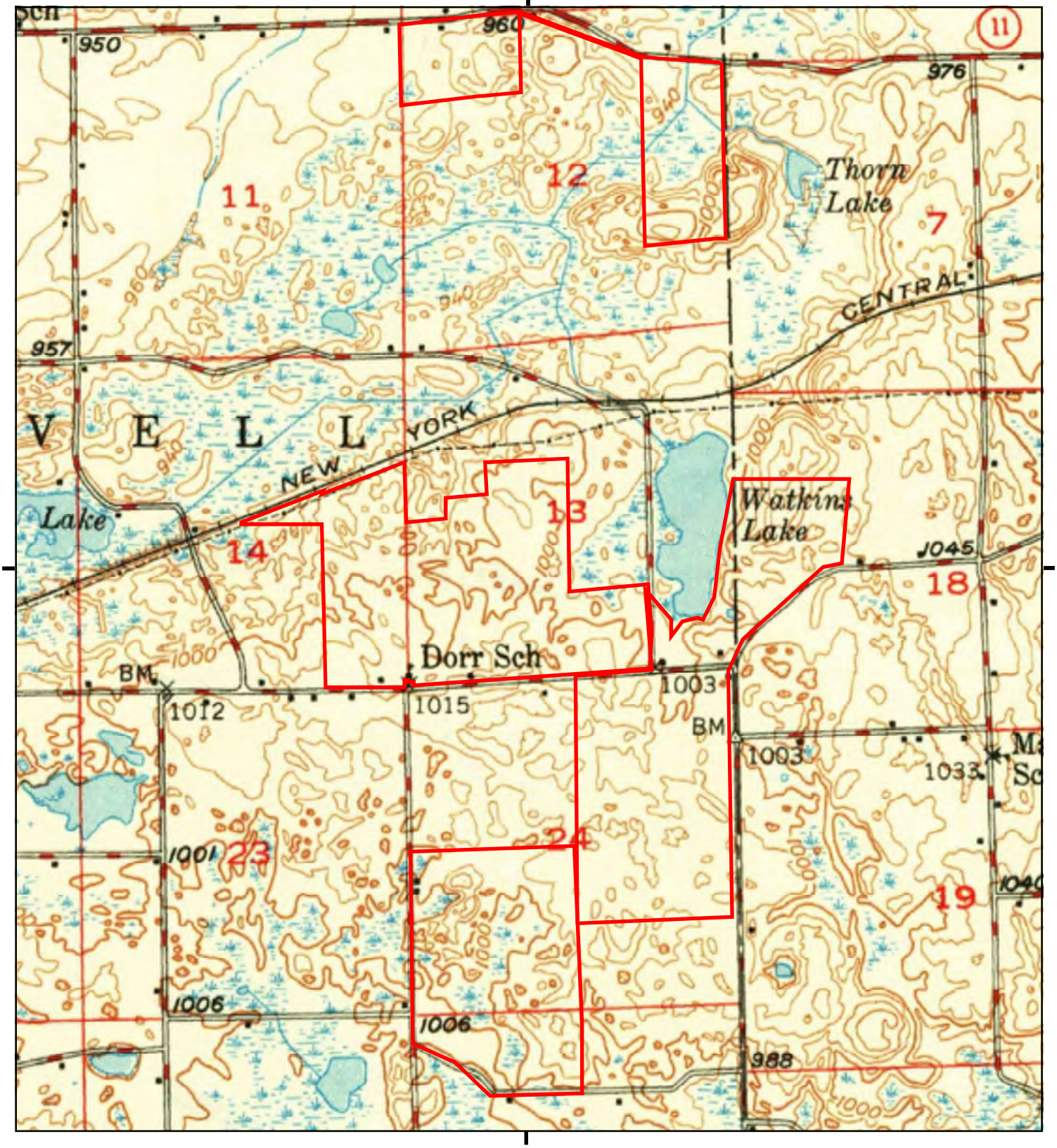
SE, Tipton, 1980, 7.5-minute
NW, Norvell, 1980, 7.5-minute

SITE NAME: Not Reported
ADDRESS: Not Reported
BROOKLYN, MI 49230
CLIENT: Applied Science & Technology

N

Historical Topo Map

1949



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W E
SW S SE

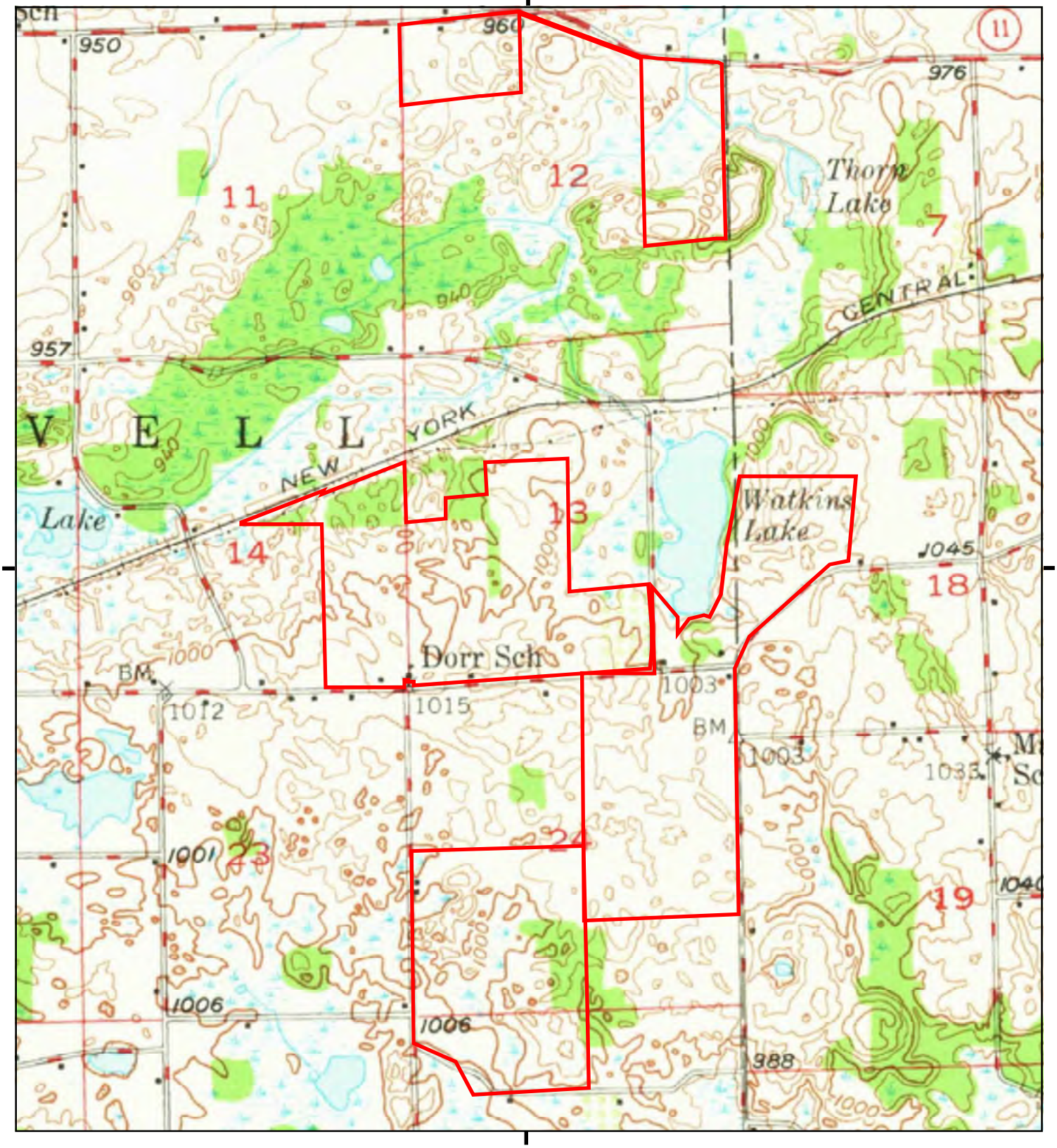
TP, Manchester, 1949, 15-minute

SITE NAME: Not Reported
ADDRESS: Not Reported
BROOKLYN, MI 49230
CLIENT: Applied Science & Technology

N

Historical Topo Map

1948



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Manchester, 1948, 15-minute

SITE NAME: Not Reported
ADDRESS: Not Reported
BROOKLYN, MI 49230
CLIENT: Applied Science & Technology

N

APPENDIX F

Qualifications
Resumes

Aliya Spotts

Environmental Technician

Aliya Spotts is an Environmental Technician at ASTI Environmental, working with the Property Services Group to assist with Phase I Environmental Site Assessments. Her responsibilities include conducting site inspections, initiating Phase I ESA projects, and assisting with Phase I ESA reports. She is in charge of organizing municipal and county Freedom of Information documents. Her project assistance includes vacant land, commercial, industrial and residential sites across Michigan and Ohio. She also has experience assisting with Phase II ESA soil sampling investigations and supervising geographical surveys.

Education

University of Michigan, BS in Environmental Science, 2018

Years of Practice

2022-Present

Certifications

40-Hour OSHA HAZWOPER Training and Annual Refreshers

Select Project Experience

Phase I Environmental Site Assessments, Real Estate Transactions, Multiple Locations, MI, OH

Hydrogeological Investigation, Industrial Sites, Auto Services, Dry Cleaners, Fuel Oil Underground Storage Tanks, Previous Environmental Reports, Multiple Locations, MI

Vapor Intrusion Investigations, Residential and Commercial Properties, Multiple Locations, MI

Anthony Spencer

Environmental Scientist

Anthony Spencer brings nearly 15 years of experience in Phase I and Phase II Environmental Site Assessments. He has worked on a variety of projects across Michigan, Ohio, Kentucky, Oklahoma, Pennsylvania, and North Carolina, including residential, commercial, and industrial sites. His portfolio features assessments for apartment complexes, shopping plazas, and auto dealerships.

Anthony's comprehensive evaluations encompass site inspections, historical research, interactions with federal, state, and local agencies, subsurface sampling, geophysical surveys, and underground tank closures.

Education

Wayne State University, BS in Environmental Science, Minor in Geology, 2011

Years of Practice

2010-Present

Certifications

EPA Environmental Professional: ASTM Practice, E1527-21

40-Hour OSHA HAZWOPER Training and Annual Refreshers

Select Project Experience

Vacant Land Due Diligence and Site Assessments, Multiple Locations, MI

Agricultural Due Diligence and Site Assessments, Multiple Locations, MI

Residential Due Diligence and Site Assessments, Multiple Locations, MI

Commercial Due Diligence and Site Assessments, Multiple Locations, MI

Industrial Due Diligence and Site Assessments, Multiple Locations, MI

Phase I ESA, Multi-Family Building, Detroit, MI

Phase I ESA, Historic Apartment Buildings, HUD Choice Neighborhood Initiative, Detroit, MI

Phase I ESA, 53-Unit, 2-Story Apartment Building, Detroit MI

Phase I ESA, Multi-Family Building, Pontiac, MI

Phase I ESA, Coil Wire Plant, Warren, MI

Phase I ESA, Metal Stamping Plant, Madison Heights, MI

Phase I ESA, Marina, Boyne City, MI

Phase II ESA, Mixed-Use Site, Detroit, MI

Phase II ESA, Commercial Site, Marshall, MI

Phase II ESA, Commercial Site, Pontiac, MI

Phase II ESA, Residential Site, Detroit, MI

Phase II ESA, Sanitary System Sampling for PFAS Investigation, Oakland County Water Resources Commission, Oakland County, MI

Description of Landowner Liability Protections for All Appropriate Inquiry and User Continuing Obligations

In order to maintain a LLP, landowners must also comply with pre-acquisition and post-acquisition requirements under CERCLA and All Appropriate Inquiry. A summary of each LLP is provided below.

Innocent Landowner Defense (ILO): The defendant did not know and had no reason to know of the hazardous substance with respect to the Subject Property and must show that All Appropriate Inquiries into the past ownership and uses of the property in accordance with generally good commercial and customary standards and practices. All Appropriate Inquiries cannot result in knowledge of contamination.

Post- Acquisition Obligations

1. Cooperate, assist, and provide access to persons that are authorized to conduct response actions or natural resource restoration at the property.
2. Comply with any land use restrictions established or relied on in connection with the response action at a vessel or facility.
3. Must not impede on the effectiveness or integrity of any institutional control employed at the vessel or facility in connection with a response action.
4. Take reasonable steps to 1) stop any continuing release, 2) prevent any threatened future release, and 3) prevent or limit any human, environmental, or natural resources exposure to any previously released hazardous substance.

Bona Fide Prospective Purchaser (BFPP): Allows a purchaser to acquire a property with knowledge that it is contaminated. This applies to purchasers (and their tenants) that acquire ownership of a facility after January 11, 2002. To qualify, prior to acquiring title, a person must show 1) that all disposal of hazardous substances at the facility occurred before the person acquired the facility, 2) conducted All Appropriate Inquiry, and 3) the person is not a Potentially Responsible Party (PRP) or affiliated with any other PRP for the property through any direct or indirect familial relationship, any contractual, corporate or financial relationship or as a result of a reorganization of a business entity that was a PRP.

Post- Acquisition Obligations

1. Provide all legally required notices with respect to the discovery or release of any hazardous substances at the facility.
2. Exercise appropriate care with respect to hazardous substances by taking reasonable steps to stop any continuing release; prevent any threatened future release; and prevent or limit human, environmental, or natural resource exposure to any previously released hazardous substance.
3. Provide full cooperation, assistance, and access to persons who are authorized to conduct response actions or natural resource restoration (including the cooperation and access necessary for the installation, integrity, and maintenance of any complete or partial response actions or natural resource restoration).
4. Comply with any land use restrictions established or relied on in connection with the response action, and not impede the effectiveness or integrity of any institutional control employed at the vessel or facility in connection with a response action.
5. Comply with any request for information or administrative subpoena issues under CERCLA.

Explanation of LLPs and User Continuing Obligations Continued

Contiguous Property Owner (CPO): A CPO must not know or have reason to know following performance of All Appropriate Inquiries that their property was or could be contaminated by the adjacent or contiguous real property. The property owner must show that they did not cause, contribute, or consent to the release and is not a PRP or affiliated with any other PRP, and conducted All Appropriate Inquiries.

Post- Acquisition Obligations

1. Take reasonable steps to 1) stop any continuing release, 2) prevent any threatened future release, and 3) prevent or limit any human, environmental, or natural resources exposure to any previously released hazardous substance.
2. Provide full cooperation, assistance, and access to persons who are authorized to conduct response actions or natural resource restoration (including the cooperation and access necessary for the installation, integrity, and maintenance of any complete or partial response actions or natural resource restoration).
3. Comply with any land use restrictions established or relied on in connection with the response action at the facility.
4. Not impede the effectiveness or integrity of any intuitional control employed in connection with a response action.
5. Comply with any request for information or administrative subpoena issues under CERCLA.
6. Provide all legally required notices with respect to the discovery or release of any hazardous substances at the facility.

ASTI ENVIRONMENTAL

ENVIRONMENTAL INVESTIGATION, REMEDIATION, COMPLIANCE AND RESTORATION PROJECTS THROUGHOUT THE GREAT LAKES SINCE 1985.

OUR SERVICES INCLUDE:

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- **BROWNFIELD/GREYFIELD REDEVELOPMENT ASSISTANCE**
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- **ECOLOGICAL ASSESSMENTS AND RESTORATION**
- **ENVIRONMENTAL ASSESSMENTS AND IMPACT STATEMENTS**
- **ENVIRONMENTAL OPPORTUNITIES ASSESSMENT**
- **GIS MAPPING**
- **HAZARD MITIGATION PLANNING**
- **MINING AND RECLAMATION ASSISTANCE**
- **REMEDIATION IMPLEMENTATION, OPERATION AND MAINTENANCE**
- **PHASE I ESA AND ENVIRONMENTAL DUE DILIGENCE ASSESSMENTS**
- **REGULATORY COMPLIANCE AND PERMITTING**
- **SOIL AND GROUNDWATER ASSESSMENTS**
- **SOIL AND GROUNDWATER REMEDIATION**
- **STORAGE TANK COMPLIANCE AND CLOSURE**
- **THREATENED AND ENDANGERED SPECIES SURVEYS**
- **WATERSHED AND STORMWATER MANAGEMENT PROGRAMS**
- **WETLAND DELINEATION, PERMITTING, MITIGATION AND BANKING**

ASTI ENVIRONMENTAL
Detroit/Grand Rapids/Brighton

Phone: 1-800-395-2784
www.asti-env.com
Email: environmental@asti-env.com

EXHIBIT 10

MARKET STUDY

MATCHED PAIR AND SALES DATA ANALYSIS

PREPARED FOR:
EDWARD C. LEVY CO.

PREPARED BY:

ANDREW REED & ASSOCIATES, INC.
REAL ESTATE APPRAISERS AND VALUATION CONSULTANTS

R&A

ANDREW REED & ASSOCIATES, INC.
REAL ESTATE APPRAISERS AND VALUATION CONSULTANTS

Phone: (248) 561-9440
reedandassociates@mac.com

42690 Woodward Avenue, Suite 350
Bloomfield Hills, Michigan 48304

Fax: (313) 216-1740
MI License No. 12-05-006981

Andrew M. Reed, SR/WA

July 11, 2025

Mr. Reuben Maxbauer
Edward C. Levy Co.
9300 Dix Avenue
Dearborn, Michigan 48120

Re: Matched Pair Analysis

Mr. Maxbauer:

Attached are our conclusions and supporting documentation for a Market Study performed to determine any potential value impact to properties located along truck haul routes as well as properties with exposure to active mining facilities.

The scope of work consisted of researching sales of improved residential market properties either 1) along designated truck haul routes, or 2) market properties with direct exposure to a mining operation. After identifying market properties with the above listed externalities (Encumbered Properties), the appraisers then attempted to compare those properties with similar properties - though unencumbered by any such externality (Unencumbered Properties). Additionally, we have analyzed secondary market characteristics for both property types in various control groups such as Cumulative Days on the Market (DOM) and Sale Price-to-List Price Ratio (SP:LP Ratio) to assist in determining if there is any indication of impact from externalities.

The following pages include summary spreadsheets and maps which provide pertinent information for included sales and our conclusions. The individual matched pair analyses and back-up MLS information or other verification data for each sale has been stored in the appraisers work file.

The control groups of properties selected did not, to our knowledge, have any other external factors that would affect the control group. The goal and purpose of this market study was to isolate any potential impact from truck haul route exposure and/or mining operation exposure. We have selected only what we believe to be arms-length transactions for selection in this market study.

Analysis of Encumbered Properties generally followed the below parameters:

- Searched county road commission maps for properties along approved truck hauling routes,
- Searched GIS and county aerial maps and visually inspected truck hauling routes, operating mining facilities, and residential properties,
- Researched sale and listing history of Encumbered Properties using available MultiList Services (MLS) and online assessing records,
- A matched pair sales analysis for each sale was considered based upon the availability of comparable sales. Selection of comparable sales was based upon property characteristics, neighborhood and sale date, and
- A comparison within each control group was made between Encumbered and Unencumbered Properties for both Sale Price-to-List Price Ratio and Cumulative Days on Market.

This market study and subsequent reporting herewith have been done in accordance with the requirements set forth by our client, the Edward C. Levy Co. Furthermore, we have conformed with the current edition of the Uniform Standards of Professional Appraisal Practice (USPAP), effective January 1, 2024.

Real estate is unique and therefore requires individual analysis in order to estimate market value. We have not made any determination regarding market value of any particular properties. The goal and purpose of this Matched Pair Study is to assist the client in determining if proximity to truck hauling routes and/or mining operations can impact value.

The undersigned has no interest in the properties for which this study may be utilized. Additionally, fees are in no way contingent upon the data reported herein. We have received significant appraisal assistance from John V. O'Connor, State Certified Residential Appraiser with regard to property sales research. Appraisers are required to be licensed and regulated by the Michigan Department of Licensing and Regulatory Affairs, Post Office Box 30018, Lansing Michigan 48909.

Please do not hesitate to direct any questions, comments, or concerns to our office. Thank you for the opportunity to be of service.

Respectfully submitted,

Andrew M. Reed, SR/WA
State Certified General Appraiser
Michigan License No. 12-05-006981

Assignment Scope of Work

The purpose of this market study is to determine if there are any measurable impacts on residential property values due to proximity to either a truck hauling route and/or direct exposure to a mining operation (externalities).

We have identified potential control groups from which to analyze sales related data to determine potential impact based on the above externalities. First, we have identified two truck haul routes from active mining operations; one in Milford Township, Oakland County, Michigan (Kensington Road/Buno Road mine) and one in Highland Township, Oakland County, Michigan (N Hickory Ridge Road/Clyde Road mine). Additionally, we have identified two control groups with direct exposure to operating mines: again the Kensington Road/Buno Road mine in Milford Township, and an operating mine in Oxford Township, Oakland County, Michigan (N Oxford Road and Lakeville Road mine).

- Sales were selected within a range from 2014 through 2025 and generally researched through the Realcomp multilist service. Discussions with brokers and developers relative to market expectations were also conducted.

- Two types of data set comparisons have been utilized. First, direct matched pair comparisons were made between sales of similar properties, isolating the externality of the truck hauling route and/or proximity to the mining operations, within a similar time frame, thereby making minimal market timing adjustments. Additionally, we have arrayed sales utilizing dollars paid per square-foot in another control group with proximity to a mine.

- Andrew M. Reed, SR/WA completed exterior visual inspections of the various control group areas during research for this market study between May and July of 2025.

- This market study report conforms to the current edition of the Uniform Standards of Professional Appraisal Practice, effective January 1,, 2024 as well as the Code of Professional Ethics and Standards of Professional Appraisal Practice of the International Right of Way Association (IRWA)

Matched Pairs

After identifying two control groups with direct exposure to a trucking route associated with a mining operation, the appraisers then attempted to compare those improved properties with proximity to the hauling route (Encumbered Properties) with similar properties - though not suffering any exposure to the externality (Unencumbered Properties). This is often referred to as a Matched Pair Analysis. Appraisers will identify similar properties, then make required adjustment for property differences (sale date, condition, baths, GLA, basement, garage, etc.). After making necessary adjustments, the properties are then considered similar, except for the primary difference – exposure to a truck hauling route (or in later examples, direct exposure to a mining operation).

Kensington Road/Buno Road Mine

N Hickory Ridge/Clyde Road Mine

We have combined our research for the control groups of the Milford area truck hauling route along Kensington and Buno Roads and the Highland Township area truck hauling route along N Hickory Ridge Road. It should be noted that the below listed properties with frontage along Buno Road suffer from dual externalities – both truck hauling route exposure AND mining operation exposure (addresses highlighted in blue in below table). This will be discussed further following summary presentation of the data. All encumbered properties were attempted to be paired with similar Unencumbered Properties for analysis. In total, 24 sales were utilized for matched pair analysis. Below is a summary chart of the selected matched pairs.

Year Round Gravel Haul Route	No Gravel Haul Permitted	Percent Difference	
Address (sale date)	Address (sale date)		
3370 N Hickory Ridge (6/2018 sale)	1870 White Lake (11/2018)	22.3%	indicates -no impact
13334 Buno (10/2021 sale)	13305 Spencer (8/2020)	21.6%	indicates -no impact
4457 Kensington (3/2017 sale)	11392 Hyne (8/2017)	19.2%	indicates -no impact
4479 Kensington (6/2018 sale)	11392 Hyne (8/2017)	16.7%	indicates -no impact
5315 Hickory Ridge (4/2019 sale)	1870 White Lake (11/2018)	16.4%	indicates -no impact
13520 Buno (5/2023 sale)	13305 Spencer (12/2022)	14.8%	indicates -no impact
5325 Kensington (8/2016 sale)	34 Pleasant Valley (3/2017)	14.5%	indicates -no impact
4398 Kensington (4/2025 sale)	324 Pleasant Valley (10/2024)	12.4%	indicates -no impact
2185 N Hickory Ridge (5/2021 sale)	4095 Clyde Rd (5/2019)	9.0%	indicates -no impact
5540 Kensington (8/2020 sale)	12371 Hyne (11/2021)	4.8%	indicates -no impact
13520 Buno (5/2023 sale)	12520 Buno (8/2022)	2.5%	indicates -no impact
4457 Kensington (3/2017 sale)	11192 Hyne (1/2018)	0.3%	indicates -no impact
4479 Kensington (6/2018 sale)	11192 Hyne (1/2018)	0.3%	indicates -no impact
4479 Kensington (6/2018 sale)	12335 Hyne (6/2019)	-1.0%	indicates - impact
4457 Kensington (3/2017 sale)	2248 Pleasant Valley (5/2016)	-2.4%	indicates - impact
3370 N Hickory Ridge (6/2018 sale)	3558 White Lake (6/2018)	-3.1%	Indicates - impact
5315 Hickory Ridge (4/2019 sale)	3558 White Lake (6/2018)	-4.5%	indicates - impact
13458 Buno (5/2018 sale)	13305 Spencer (5/2017)	-6.6%	Indicates - impact
1561 N Hickory Ridge (5/2019 sale)	271 Clyde (10/2019)	-6.5%	Indicates - impact
4710 Kensington (3/2024 sale)	3035 Kensington (9/2024)	-8.2%	Indicates - impact
13334 Buno (7/2018 sale)	12520 Buno (1/2017)	-9.9%	Indicates - impact
5540 Kensington (8/2020 sale)	12335 Hyne (7/2019)	-12.0%	Indicates - impact
5265 N Hickory Ridge (12/2019 sale)	1226 White Lake (12/2019)	-12.5%	Indicates - impact
13520 Buno (5/2023 sale)	13250 Spencer (10/2022)	-13.3%	Indicates - impact
		Avg Impact	Average "no" Impact
Low traffic - truck route with mine exposure		-9.5%	13.0%
Main road traffic - truck hauling route		-7.3%	12.1%

Encumbered Properties were paired and compared with other similar, though Unencumbered properties. These matched pairs show a Range of Impact from Low (No Impact) to High. With regard to the range of impact percentage, a negative impact indicates that the Encumbered Property shows a lower correlated value when compared with the unencumbered property (or properties) with which it was matched. An "increase" not only indicates NO impact, but in fact shows a higher correlated value when compared to a similar property with no exposure to the externality of a truck hauling route. Of the listed 24 matched pairs, 13 show a positive impact due to the externality, while 11 show a negative impact. The average negative impact for the 11 sales is (7.3 %), while the average positive impact for the 13 sales is 12.1 %.

Further analysis is warranted of 6 matched pairs on Buno Road, which not only have exposure to a truck hauling route (this portion of Buno Road is the entry/exit of the mine), but also direct exposure to the mining operation itself. Of the six matched pairs, three pairs show positive impact, while three pairs show negative impact. The average negative impact indicated is (9.5 %), while the average positive impact for the three pairs is 13.0 %

Conclusion – Matched Pair Analysis, Truck Hauling Route

Overall analysis of potential impact of proximity to a truck hauling route is clearly statistically insignificant, indicating NO IMPACT. Market participants are more concerned with other variables in purchasing residential properties: school district, interior features, proximity to shopping or linkage, etc. In isolating the externality of a truck hauling route, it is clear that this specific property variable does not have a specific impact on value of residential properties.

Sale Price-to-List Price Ratio and Days on Market Comparisons

We have analyzed the above data to attempt to extract any other potential impact on value through ancillary statistical evidence such as; 1) decreased Sale Price-to-List Price ratio or 2) increased days on market for Encumbered Properties when compared with Unencumbered Property statistics provided by Realcomp MLS. Below is provided two separate analyses for each control group. The two selected points of comparison are Sale Price-to-List Price Ratio (SP:LP Ratio) and Days on the Market (DOM). The below data is for only sales utilized in the truck hauling route analysis. No dual proximity externality properties from Buno Road were included herein.

N Hickory Ridge Road Haul Route				
Encumbered Properties		SP:LP Ratio		DOM
	Average	0.998		48
	Median	0.978		15
Unencumbered Properties		SP:LP Ratio		DOM
	Average	0.984		139
	Median	0.986		77

Kensington Road Truck Haul Route				
Encumbered Properties		**SP:LP Ratio**		**DOM**
	Average	0.990		70
	Median	0.982		29
Unencumbered Properties		**SP:LP Ratio**		**DOM**
	Average	0.996		26
	Median	1.000		8

As evidenced by the data from the N Hickory Ridge truck hauling control group, the Encumbered Properties actually sell for closer to listing price and sell more quickly than those properties with no externality. For the Kensington Road control group, the SP:LP Ratio are within 0.8 %, while the Unencumbered Properties did enjoy slightly fewer DOM when compared with properties with frontage on Kensington Road.

Conclusion – Truck Hauling Route Analysis of SP to LP Ratio and DOM

We have analyzed any potential impact on the marketability of Encumbered Properties. Based on the analysis, there is clearly no indicated impact regarding SP:LP Ratio in either control group. In fact, the N Hickory Ridge control group indicates a positive SP:LP Ratio and fewer Days on the Market. There is a slight increased DOM evidenced in the Kensington Road control group, however no impact on SP:LP Ratio.

It is our opinion that the above indicates that there is NO IMPACT to the marketability and desirability to residential properties with exposure to a truck hauling route. There is not any market-based statistical support that Encumbered Properties are impacted for these units of comparison. Additionally, it should be noted that these units of comparison do not necessarily impact value. SP to LP Ratio can often be impacted by brokers listing properties at too high a price. Secondly, DOM can also be tied to properties that are listed for sale at too high a price and not necessarily any particular externality. These indicators additionally assist the appraisers in analyzing the previously summarized matched pairs.

PROXIMITY TO MINING ANALYSIS

Two control groups were researched and selected for analysis of potential impact for proximity to mining operations. These groups were selected based on an actual border with a mine. The first control group is around the Kensington/Buno mine in Milford Township. Seven matched pairs were utilized in the analysis of this control group. The second control group is a large subdivision bordering a mining operation on two sides in Oxford Township, Oakland County at N Oxford and Lakeville Roads. This subdivision has one street that forms an "outer ring" and directly borders the existing mining operation, as well as the remainder of the subdivision's interior lots, away from the mine. We have analyzed the historical sales in this subdivision dating back to 2015 and performed a sales analysis for those sites bordering the mine versus interior lots based on a dollars per square-foot unit of comparison for the three different types of housing stock within the subdivision: one-story, 1 ½-story and colonial.

Matched Pair Analysis – Kensington/Buno Mine

Properties with direct exposure to a mine were paired and compared with other similar, though non-exposure properties. These matched pairs show a Range of Impact from Low to High.

Mine Exposure Address (sale date)	No Exposure Address (sale date)	Percent Difference	
13520 Buno (2/2022 sale)	12520 Buno (8/2022)	19.8%	indicates "no" impact
2808 Labadie (9/2016 sale)	12611 Spencer (2/2015)	11.0%	indicates "no" impact
13520 Buno (2/2022 sale)	13250 Spencer (10/2022)	4.0%	indicates "no" impact
3175 Kensington (7/2022)	12520 Buno (8/2022)	3.1%	indicates "no" impact
13520 Buno (2/2022 sale)	13541 Spencer (10/2021)	-4.0%	indicates impact
2808 Labadie (9/2016 sale)	13305 Spencer (5/2017)	-7.1%	indicates impact
3175 Kensington (7/2022)	13250 Spencer (10/2022)	-11.8%	indicates impact
		Avg Impact	Average "no" Impact
	Exposure to mine	-7.6%	9.5%

With regard to the range of impact percentage, a negative impact indicates that the property with exposure/proximity shows a lower correlated value when compared with the unencumbered property (or properties) with which it was matched. An "increase" not only indicates NO impact, but in fact shows a higher correlated value when compared to a similar property with no exposure to the externality of a mine. Of the listed 7 matched pairs, 4 show a positive impact due to the externality, while 3 show a negative impact. The average negative impact for the 3 sales is (7.6 %), while the average positive impact for the 13 sales is 9.5 %.

Brokers and market participants indicate that mine proximity can be viewed differently depending on preference of those involved participants. Some prefer no neighbors able to construct behind and enjoy the privacy afforded proximity to a mine. Therefore, once again the data in this matched pair control group is statistically insignificant and shows NO IMPACT due to proximity to a mining operation.

Subdivision Sales Analysis – Oxford Mine

The last control group researched for potential impact on value due to proximity to a mine was a subdivision located in Oxford Township at N Oxford Road and Lakeville Road. We have researched this subdivision for sales since 2015, grouping sales based on: 1) similar market timing and 2) similar housing type (ranch or colonial/cape cod). We have aggregated this data for comparison based on those sites on the street bordering the mine and the remaining (interior) of the subdivision. Grouping was done and presented when enough sales were present from which to present data for reasonable conclusions.

Ranch property comparison

Adjacent to Mine

MLS Number	Street Num	Street Nam	City	List Price	Close Price	Close Date	CDOM	RATIO_Clos	Est Fin Abv	Architectur
2015 and 2016										
215002986	550	STATE	Oxford Twp	$269,900	$265,800	5/29/15	138	$155	1712	Ranch
214083893	275	State	Oxford Twp	$288,803	$288,689	8/7/15	89	$170	1700	Ranch
215003011	341	STATE	Oxford Twp	$319,900	$280,740	11/30/15	252	$123	2286	Ranch
215062387	193	State	Oxford Twp	$283,900	$324,470	1/27/16	110	$190	1705	Ranch
216006509	330	STATE	Oxford Twp	$269,000	$262,000	2/22/16	511	$163	1606	Ranch
216020260	110	STATE	Oxford Twp	$310,000	$310,000	4/18/16	0	$160	1938	Ranch
216040106	585	STATE	Oxford Twp	$269,900	$262,000	8/9/16	69	$158	1660	Ranch
							Avg $/SF	**$160**		
2017-2019										
217019158	321	STATE	Oxford Twp	$294,900	$302,000	3/24/17	0	$151	2000	Ranch
217059896	431	STATE	Oxford Twp	$309,900	$309,900	9/12/17	663	$181	1712	Ranch
217038178	670	STATE	Oxford Twp	$265,000	$245,000	9/18/17	158	$125	1965	Ranch
218027190	155	State Street	Oxford Twp	$305,000	$305,000	5/22/18	12	$166	1832	Ranch
218102207	265	STATE	Oxford Twp	$339,500	$325,000	2/14/19	85	$193	1681	Ranch
							Avg $/SF	**$163**		
2021 and 2022										
2210004681	280	STATE Stree	Oxford Twp	$335,000	$343,500	3/2/21	11	$190	1809	Ranch
2220008132	265	State	Oxford Twp	$399,900	$400,000	2/28/22	6	$238	1681	Ranch
2220028798	213	STATE	Oxford Twp	$399,900	$431,000	6/6/22	5	$239	1804	Ranch
20221032163	640	STATE	Oxford Twp	$520,000	$490,000	10/4/22	43	$214	2286	Ranch
							Avg $/SF	**$220**		

Interior Lots – No Exposure

MLS Number	Street Num	Street Nam	City	List Price	Close Price	Close Date	CDOM	RATIO_Clos	Est Fin Abv	Architectur
2015 and 2016										
214118059	220	WILLOW LA	Oxford Twp	$249,900	$245,000	1/23/15	12	$122	2003	Ranch
214106321	757	Snyder	Oxford Twp	$272,190	$278,410	3/31/15	172	$161	1725	Ranch
214127639	200	WILLOW LA	Oxford Twp	$269,000	$262,000	4/10/15	91	$128	2050	Ranch
58031232514	771	SNYDER	OXFORD TV	$269,990	$269,900	4/29/15		$158	1705	Ranch
215020356	771	Snyder	Oxford Twp	$269,990	$269,900	5/18/15	244	$158	1705	Ranch
215046362	157	Beaumont	Oxford Twp	$315,061	$315,061	5/18/15	6	$185	1705	Ranch
215126314	828	SNYDER	Oxford Twp	$299,000	$294,000	4/12/16	119	$163	1800	Ranch
215129138	821	Phillips	Oxford Twp	$309,900	$303,900	6/2/16	98	$171	1780	Ranch
216042532	670	PHILLIPS	Oxford Twp	$309,900	$315,432	9/23/16	118	$175	1804	Ranch
216074196	166	BEAUMONT	Oxford Twp	$259,900	$249,500	10/24/16	43	$142	1757	Ranch
216062563	798	PHILLIPS	Oxford Twp	$279,900	$279,900	11/2/16	89	$151	1816	Ranch
							Avg $/SF	**$156**		
2017-2019										
216088592	821	SNYDER	Oxford Twp	$299,900	$299,900	2/27/17	173	$168	1780	Ranch
217020628	250	Willow Lak	Oxford Twp	$330,000	$327,425	5/12/17	2	$164	2000	Ranch
217035997	146	BEAUMONT	Oxford Twp	$364,900	$364,900	6/15/17	4	$172	2118	Ranch
217043086	828	SNYDER	Oxford Twp	$348,500	$343,500	6/30/17	2	$192	1790	Ranch
217021535	203	Beaumont	Oxford Twp	$319,900	$305,000	7/5/17	39	$178	1712	Ranch
217020397	801	PHILLIPS	Oxford Twp	$299,800	$306,865	8/25/17	71	$169	1817	Ranch
58031329461	136	Beaumont	Oxford Twp	$309,900	$302,000	10/26/17	21	$155	1954	Ranch
217043188	160	WILLOW LA	Oxford Twp	$337,900	$354,133	3/21/18	121	$190	1865	Ranch
58031365564	200	Willow Lak	Oxford Twp	$349,900	$344,000	1/14/19	17	$163	2050	Ranch
219007509	680	PHILLIPS	Oxford Twp	$319,900	$300,000	3/18/19	9	$174	1725	Ranch
219021953	109	WILLOW LA	Oxford TWI	$359,900	$355,000	6/17/19	81	$171	2070	Ranch
							Avg $/SF	**$172**		
2021 and 2022										
2210022716	186	Beaumont	Oxford Twp	$330,000	$320,000	6/1/21	6	$167	1921	Ranch
2210053854	831	SNYDER	Oxford Vlg	$384,900	$385,000	8/18/21	5	$223	1724	Ranch
2210082768	841	SNYDER	Oxford Twp	$380,000	$392,500	11/12/21	11	$233	1684	Ranch
20221002721	737	Snyder	Oxford Twp	$490,000	$480,000	8/25/22	54	$215	2232	Ranch
20221018490	861	SNYDER	Oxford Twp	$377,000	$381,300	9/28/22	43	$221	1725	Ranch
20221036923	163	BEAUMONT	Oxford Twp	$449,900	$457,000	10/11/22	3	$236	1940	Ranch
							Avg $/SF	**$216**		

Cape Cod/Colonial property comparison

Adjacent to Mine

MLS Number	Street Num	Street Nam	City	List Price	Close Price	Close Date	CDOM	RATIO_Clos	Est Fin Abv	Architectu
2015 and 2016										
215042427	521	STATE	Oxford Twp	$299,900	$311,120	5/4/15	0	$110	2824	Colonial
215001843	450	STATE	Oxford Twp	$289,900	$288,000	7/10/15	256	$130	2217	Colonial
215001899	560	STATE	Oxford Twp	$299,900	$297,224	7/10/15	50	$123	2409	Colonial
215002996	580	STATE	Oxford Twp	$329,900	$322,500	8/14/15	205	$118	2731	Colonial
215070786	481	STATE	Oxford Twp	$339,900	$332,000	9/11/15	198	$121	2746	Colonial
216015364	340	STATE	Oxford Twp	$349,900	$389,900	10/13/15	413	$130	3001	Colonial
215083107	570	STATE	Oxford Twp	$299,500	$299,900	12/29/15	123	$135	2217	Colonial
216006913	401	STATE	Oxford Twp	$319,900	$324,900	3/11/16	250	$142	2217	Colonial
215094659	411	State	Oxford Twp	$349,900	$332,295	3/22/16	136	$122	2731	Colonial
216004374	140	STATE	Oxford Twp	$299,900	$296,500	4/1/16	126	$116	2500	Colonial
216006506	311	RED CEDAR	Oxford Twp	$299,900	$310,895	7/27/16	112	$140	2217	Colonial
216045865	203	STATE	Oxford Twp	$324,900	$320,000	9/12/16	68	$130	2460	Other
216047821	631	STATE	Oxford Twp	$449,989	$435,000	10/24/16	176	$131	3309	Colonial
216112467	360	State	Oxford Twp	$345,000	$345,000	11/26/16	0	$126	2731	Colonial
216026301	350	STATE	Oxford Twp	$339,900	$339,900	12/8/16	234	$120	2824	Colonial
							Avg $/SF	**$126**		
2017-2019										
216093308	321	RED CEDAR	Oxford Twp	$365,900	$353,000	1/13/17	55	$145	2430	Colonial
217003625	491	STATE	Oxford Twp	$347,750	$338,625	3/17/17	36	$124	2731	Colonial
217002494	590	STATE STRE	Oxford Twp	$314,900	$307,500	4/13/17	77	$139	2217	Colonial
216094208	130	STATE	Oxford Twp	$299,900	$295,850	5/15/17	186	$115	2573	Colonial
217023200	170	STATE	Oxford Twp	$314,900	$305,000	6/9/17	12	$130	2352	Colonial
217032973	270	STATE	Oxford Twp	$329,900	$310,000	7/10/17	38	$139	2237	Colonial
217024008	501	STATE STRE	Oxford Twp	$329,900	$329,900	7/20/17	104	$149	2217	Colonial
217042052	650	STATE	Oxford Twp	$339,000	$340,000	8/21/17	90	$123	2772	Colonial
58031333025	481	State	Oxford Twp	$399,900	$390,000	12/11/17	13	$142	2746	Colonial
217006314	441	STATE	Oxford Twp	$349,900	$346,401	12/27/17	371	$123	2824	Colonial
218023762	100	STATE	Oxford Twp	$365,000	$358,999	6/26/18	59	$144	2490	Colonial
218047008	200	State	Oxford twp	$334,900	$334,900	7/25/18	11	$137	2452	Colonial
58031375991	501	State St	Oxford Vlg	$339,900	$342,000	5/6/19	3	$154	2217	Colonial
219028329	312	RED CEDAR	Oxford Twp	$332,500	$330,279	5/21/19	72	$136	2420	Cape Cod, F
58031379508	531	State	Oxford Twp	$359,900	$354,000	6/19/19	18	$148	2400	Split Level
							Avg $/SF	**$136**		
2022-2025										
2220009682	410	STATE	Oxford Twp	$449,900	$421,000	4/5/22	13	$175	2400	Colonial
2220021454	331	RED CEDAR	Oxford Twp	$435,000	$440,000	4/26/22	4	$195	2253	Colonial
2220026222	260	State	Oxford Twp	$435,000	$450,000	6/3/22	5	$194	2323	Colonial
20230086247	650	STATE	Oxford Twp	$510,000	$495,000	1/15/24	55	$179	2764	Colonial
20240023127	450	STATE	Oxford Twp	$499,900	$512,500	6/3/24	8	$223	2290	Colonial
20240027259	270	STATE	Oxford Twp	$489,999	$475,000	6/20/24	23	$207	2300	Colonial
20250024826	321	RED CEDAR	Oxford Twp	$569,000	$560,000	6/9/25	8	$225	2484	Colonial
							Avg $/SF	**$200**		

Interior Lots – No Exposure

MLS Number	Street Num	Street Nam	City	List Price	Close Price	Close Date	CDOM	RATIO_Clos	Est Fin Abv	Architectu
2015 and 2016										
215034682	120	WILLOW LA	Oxford Twp	$299,900	$290,000	6/1/15	7	$124	2344	Colonial
215037377	81	WILLOW LA	Oxford Twp	$319,900	$310,000	6/10/15	19	$112	2769	Colonial
215020580	758	SNYDER	Oxford Twp	$290,000	$280,000	6/16/15	178	$118	2380	Colonial
215035779	183	BEAUMONT	Oxford Twp	$294,900	$287,500	6/22/15	32	$115	2493	Colonial
215026499	770	PHILLIPS	Oxford Twp	$284,900	$267,000	8/7/15	98	$118	2268	Contempor
215037697	216	BEAUMONT	Oxford Twp	$249,900	$247,500	9/15/15	467	$115	2079	Colonial
216059636	850	Snyder	Oxford Twp	$315,000	$305,000	7/26/16	12	$128	2381	Colonial
							Avg $/SF	**$118**		
2017-2019										
217019208	799	SNYDER	Oxford Twp	$334,800	$322,200	5/11/17	330	$132	2450	Colonial
218007546	100	WILLOW LA	Oxford Twp	$439,900	$425,000	3/29/18	13	$146	2902	Contempor
218068360	260	WILLOW LA	Oxford Twp	$389,900	$370,000	12/17/18	112	$129	2874	Colonial, C
218114217	137	WILLOW LA	Oxford Twp	$405,000	$401,000	6/5/19	143	$138	2900	Cape
219052886	270	WILLOW LA	Oxford Twp	$372,900	$370,000	7/29/19	109	$132	2795	Colonial
							Avg $/SF	**$135**		
2022-2025										
2220025245	799	Snyder	Oxford Twp	$450,000	$474,000	5/13/22	4	$191	2488	Colonial
58050145674	170	Willow Lak	Oxford Twp	$459,900	$450,000	8/13/24	20	$173	2563	Colonial
							Avg $/SF	**$182**		

Below is a summary chart for the above tables for

Oxford Township Mine		
	Ranch Dwellings	
Market Timing	**Mine Exposure, $/sq ft**	**No Exposure, $/sq ft**
2015 and 2016	$160	$156
2017-2019	$163	$172
2021 and 2022	$220	$216
Oxford Township Mine		
	Cape Cod/Colonial	
Market Timing	**Mine Exposure, $/sq ft**	**No Exposure, $/sq ft**
2015 and 2016	$126	$118
2017-2019	$136	$135
2021 and 2022	$200	$182

As evidenced by the control group bordering the Oxford Township mine, those properties on the street bordering the mine actually sold for more on a dollar per square-foot basis for every time period except one (2017-2019 for ranch dwellings). This represents 5 out of 6 data sets where those properties on the street bordering the externality for which we are isolating to determine impact actually indicated a positive impact.

Review of market listing material and discussions with listing brokers indicate that those properties backing to mines are often considered desirable by market participants due to privacy associated with landscaped border and the fact that no homes are located to the rear of these properties. Again, the data above clearly indicates that there is NO IMPACT indicated within this control group for proximity to a mining operation.

MARKET STUDY CONCLUSION

This market study has researched potential impact on residential property value for properties that have exposure to truck hauling routes and/or mining operations. We have performed matched pair analysis and gross sale price sales study analysis for various portions of this market study.

All data analyzed within the various control groups indicate that there is no statistical evidence that either proximity to a truck haul route nor a mining operation creates any impact on residential property values. Therefore, it is our opinion that market-based evidence shows NO IMPACT from exposure to truck haul routes nor mining operations.

CERTIFICATION

I certify that:

- Neither my employment nor my compensation is contingent upon the reporting of predetermined values or data that favors the cause of the client, the amount of the price estimate, the attainment of a stipulated result, or the occurrence of a subsequent event.
- No one has attempted to unduly influence or coerce me, or those assisting with the market study, regarding any aspect of the report.
- I have not, and will not, reveal the findings and results of the report to anyone other than my client, and I will not do so unless authorized by my client, or, until I am required to do so by due process of law, or until I am released from the obligation by having publicly testified as to such findings.

I certify that, to the best of my knowledge and belief, except as otherwise noted in this market study, that:

- I am competent and have sufficient knowledge and experience in the market area to complete this market study.
- The statements contained in this report are true, and the information is correct, subject to the limiting conditions described.
- This report is for the use of the client and any duly authorized representatives.
- This market study has been made in conformity with the current Edition of the Uniform Standards of Professional Appraisal Practice and appropriate State & Federal laws, regulations, policies and procedures which apply to the type of report, as well as the Code of Professional Ethics and Standards of Professional Appraisal Practice of the International Right of Way Association (IRWA) of which I am a Senior Member.
- I, and anyone providing significant professional assistance to me, have no present or prospective interest in the property(ies) included in this market study. Person(s) providing significant professional assistance include Mr. John V. O'Connor, State Certified Residential Appraiser.

The certification in this report is subject to the following assumptions and limiting conditions:

- Unless otherwise stated in this report, I have no knowledge and assume there are no hidden or unapparent physical deficiencies or adverse conditions of the properties included in this market study that would make the property(ies) less valuable, and make no guarantees or warranties, express or implied. I will not be responsible for any such conditions that do exist. This report is not an environmental assessment of the property(ies) included in this market study. Expert testing should be done, if so desired. The MLS, public record sources, and mapping sources utilized to assist us in preparing this report considered reliable and accurate. Individual property sales utilized in this report have not been verified for accuracy or confirmed with a party with direct knowledge of the transaction.
- This report is not an appraisal and is not purported to comply with the Uniform Standards of Professional Appraisal Practice for writing an appraisal report; Appraisal standards under the Title XI of the Financial Institutions Reform, Recovery, and Enforcement Act; or the Standards of the Federal Financial Institutions Regulatory Agencies; or FNMA/FHLMC Appraisal Guidelines.
- I obtained the information, estimates, and opinions (if applicable) that were expressed in the report from sources that I consider to be reliable and believe them to be true and correct. I do not assume responsibility for the accuracy of any such items.

Andrew M. Reed, SR/WA
State Certified General Appraiser
Michigan License No. 12-05-006981

EXHIBIT 11

EXPERT WITNESS REPORT OF
KEVIN A. KERNEN, MAI AND SHAUN B. TOUPIN
IMPACT STUDY

ISSUED: OCTOBER 26, 2015

For more information, please contact one of the following members of the engagement team:

Kevin A. Kernen, MAI
Managing Director
248-432-1264
kkernen@srr.com

Shaun B. Toupin
Vice President
248-432-1306
stoupin@srr.com

Atlanta | Baltimore | Chicago | Cleveland | Dallas | Denver | Detroit
Houston | Los Angeles | New York | Tysons Corner | Washington, D.C.

www.srr.com

October 26, 2015

Mr. L. Steven Weiner
Vice President
Edw. C. Levy Co.
8800 Dix Avenue
Detroit, Michigan 48209

RE: Expert Witness Report of Kevin A. Kernen, MAI and Shaun B. Toupin
Impact Study

Dear Mr. Weiner:

In accordance with your request, this consulting report presents our conclusions in the impact study related to the proposed mining operation in Metamora Township. SRR was engaged by Edw. C. Levy Co. (the "client") to perform a study of residential value trends for properties located along truck haul routes and within close proximity to active mining facilities to determine whether there is an impact in value as a result of truck traffic. The intended use of the consulting report is for the use in the Community Impact Statement (CIS) by SmithGroupJJR. The client, its legal representative, American Aggregates of Michigan (AAOM), and SmithGroupJJR are the intended users of this consulting report.

SRR was engaged to determine if any impact in value occurs to residential properties along truck haul routes and within close proximity to mining facilities. Further, if any impact has occurred, to provide to the best of our capabilities an opinion as to the amount of the impact.

This study was performed to project if there will be any measurable effects on residential property values along the Dryden Road projected haul route, from M-24 (Lapeer Road) to M-53 (Van Dyke Road), and homes adjacent to the mining operation, due to the proposed Project. This project involves the addition of a mining facility by AAOM. Production hours at the proposed facility are anticipated to be from 6:00AM to 6:00PM Monday through Friday and 6:00AM to 12:00PM on Saturdays. This facility is estimated to increase existing truck traffic along the Dryden Road truck route, a designated all weather road by the Lapeer County Road Commission, by a projected 200 trucks per day Monday through Friday and a projected 100 trucks on Saturdays. It is projected that the truck traffic will be split evenly to the east and west, traveling along Dryden Road, resulting in approximately 100 trucks in each direction Monday through Friday and 50 trucks in each direction on Saturdays.

The scope of work associated with completion of this assignment includes, the following:

- Identifying potential control groups from which we could compare statistics related to assessed values and sale prices to determine whether and impact in market value occurs as a result of having a location along truck haul routes and within close proximity to mining facilities.
- For statistics relating to the sales pricing analysis, we identified control groups by searching municipalities for residential developments backing to truck haul routes with truck traffic from active mining facilities or other sources. We identified four such residential development properties in the Charter Township of Washington, Michigan; Pittsfield Charter Township, Michigan; Macomb Township, Michigan; and Ada Township, Michigan. Further, we identified one control group in the Charter Township of Oxford, Michigan that is surrounded to the north and east by an existing active mine. The control groups were defined as the residential properties within these developments and categorized as backing to truck routes/backing to mine or interior lots. Maps identifying the control groups are presented in the Exhibits.
- To the best of our ability, we chose control groups and the residential properties within those control groups that did not, to our knowledge, have any other unusual external factors that would affect the

control group. Our goal was to determine whether there has been an impact in value as a result of the proximity to the truck haul routes or mining facilities. By comparing the locations of the residential properties within the control groups, we could attempt to isolate a cause for any changes in value potentially caused to the properties located along a truck haul route or in close proximity to the active mining facility.

- We considered the time period from January 2000 to July 2015 in our analyses. This period was chosen because it encompassed a period where data is readily available and reliable via public record resources and residential multi-list services.
- Kevin A. Kernen, MAI completed an inspection on September 5, 2015 of proposed Dryden Road haul route as part of the proposed Project.
- The transactions used as sample properties within the control groups were chosen based on them being not influenced, to our knowledge, by any undue duress. We excluded all REO (real estate owned – property which is in the possession of a lender as a result of foreclosure or forfeiture), bank owned sales, government owned sales, and any sales that we did not consider "arm's length". Further, any property that has undergone renovations above and beyond typical maintenance were excluded. The comparables were confirmed through the SWMRIC Flexmls Web / Grand Rapids Association of Realtors, Realcomp online multi-listing service (MLS) and/or individual municipality assessing data. Further we interviewed Jim Esman of Silverado Custom Homes, a sales representative, for the control group located in the Charter Township of Oxford.
- For statistics relating to assessed values analysis we identified control groups by searching for municipalities on the outer fringe of urban sprawl that had truck haul routes, high traffic roads, and active mines or industrial properties which create truck traffic. We identified two such communities; the Charter Township of Highland and the Charter Township of Milford. Assessment data was provided for the years 2008 through 2014 by Oakland County Equalization via One Stop Shop Business Center Economic Development & Community Affairs. We analyzed assessment data from these communities for improved residential properties (not including lakefront properties) to determine assessment trends for the overall communities as compared to properties along truck haul routes and high traffic roads. We excluded data for properties that had large assessment changes which could reflect substantial changes to the properties and not just market change trends.
- Conversations were held with Mr. Matt Dingman, City of Farmington Hills Assessor, and Mr. Adam Million, Oakland County Equalization Assessor for the Charter Township of Milford and current representative Assessor for the Charter Township of Milford, regarding assessing residential properties along truck haul routes compared to high traffic streets compared to interior streets.
- We completed this consulting report, which conforms to the Uniform Standards of Professional Appraisal Practice of the Appraisal Foundation, as well as the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute. The conclusions illustrated within the report are supported by additional analysis and data contained within our workfile.

Conclusion

The evidence presented in this report illustrates that, although the residential assessed values for properties with truck haul route locations and close proximity to mines has seen a fluctuation in value over recent years, the fluctuation is typical of what the general residential market has experienced and deviations from the median annual changes over a six year period are minimal. Further, assessment value trends indicate there is little if any diminution in value for properties located on truck haul routes as compared to high traffic streets. Additional sale analysis evidence presented in this report illustrates that properties that back to truck haul routes or active mines show no indication of a diminution in value as a result of their locations. Therefore, it is concluded that the increase of additional truck traffic along the Dryden Road projected haul route and the creation of a sand and gravel operation should have minimal or non-measurable effects on residential property values. Our conclusions, along with a more detailed description of the analyses performed, are presented in the forthcoming Exhibits.

Yours very truly,

STOUT RISIUS ROSS, INC.

Kevin A. Kernen, MAI
Managing Director
Michigan Certified General Appraiser
License #: 1201068490
Expiration Date: July 31, 2016
248-432-1264
kkernen@srr.com

Shaun B. Toupin
Vice President
Michigan Certified General Appraiser
License #: 1201005688
Expiration Date: July 31, 2016
248-432-1306
stoupin@srr.com

Certification
I certify, except as otherwise noted in this report, that to the best of my knowledge and belief:

- The statements of fact contained in this report are true and correct.
- The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, impartial, and unbiased professional analyses, opinions, conclusions, and recommendations.
- I have no present or prospective interest in the property that is the subject of this report, and I have no personal interest with respect to the parties involved.
- I have no bias with respect to the property that is the subject of this report or the parties involved with this assignment.
- My compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
- My analyses, opinions, and conclusions were developed, and this report was prepared, in conformity with the Uniform Standards of Professional Appraisal Practice of the Appraisal Foundation, as well as the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute.
- Stout Risius Ross, Inc. has not provided services related to the subject property of this report within the last three years.
- Appraisers are required to be licensed and are now regulated by the Michigan Department of Licensing and Regulatory Affairs. Kevin A. Kernen, MAI and Shaun B. Toupin are State Certified Appraisers under this act of the Michigan Legislature. The address of the Michigan Department of Licensing and Regulatory Affairs is: P.O. Box 30018, Lansing, MI 48909.
- Kevin A. Kernen, MAI has made a personal inspection of the subject proposed haul route. Shaun B. Toupin has not made a personal inspection of the proposed haul route.
- No one provided significant professional assistance to the persons signing this report.
- The reported analyses, opinions and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute.
- The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
- This appraisal is not based on a requested minimum valuation, a specific valuation, or the approval of a loan.
- As of the date of this report, Kevin A. Kernen, MAI has completed the continuing education program for Designated Members of the Appraisal Institute.
- As of the date of this report, Shaun B. Toupin has completed the Standards and Ethics Education Requirements for Candidates of the Appraisal Institute.

Kevin A. Kernen, MAI
Michigan Certified General Appraiser
License #: 1201068490
Expiration Date: July 31, 2016

Shaun B. Toupin
Michigan Certified General Appraiser
License #: 1201005688
Expiration Date: July 31, 2016

Exhibit A

Assumptions and Limiting Conditions

A. ASSUMPTIONS AND LIMITING CONDITIONS

This appraisal report is based on the following general assumptions:

- This report is for the client to which it is addressed and is to be used by said client only for the purpose stated in the report. No reliance is to be placed on this report for any other purpose, nor shall it be published, distributed, or shown to other parties except to the party to whom the report is addressed.
- No responsibility is assumed for the legal description provided or for matters pertaining to legal or title considerations. Title to the subject is assumed to be good and marketable unless otherwise stated.
- The subject is appraised free and clear of all liens and encumbrances unless otherwise stated.
- Responsible ownership and competent property management are assumed.
- The information furnished by others is believed to be reliable. However, no warranty is given for its accuracy. We reserve the right to make appropriate revisions in the event of discovery of additional data.
- All engineering studies are assumed to be correct. The plot plans and illustrative material in this report are included only to help the reader visualize the subject.
- It is assumed that there are no hidden or unapparent conditions of the subject, subsoil, or structures that render it more or less valuable. No responsibility is assumed for such conditions or for obtaining the engineering studies that may be required to discover them.
- It is assumed that the subject is in full compliance with all applicable federal, state, and local environmental regulations and laws unless the lack of compliance is stated, described, and considered in the report.
- It is assumed that the subject conforms to all applicable zoning and use regulations and restrictions unless a nonconformity has been identified, described, and considered in the appraisal report.
- It is assumed that all required licenses, certificates of occupancy, consents, or other legislative or administrative authority from any local, state, or national government or private entity or organization have been or can be obtained or renewed for any use on which the value opinion contained in this report is based.
- It is assumed that the use of the land and improvements is confined within the boundaries or property lines of the subject described and that there is no encroachment or trespass unless noted in this report.
- Unless otherwise stated in this report, the existence of hazardous material, which may or may not be present on the subject, was not observed. We have no knowledge of the existence of such materials on or in the subject. However, we are not qualified to detect such substances. The presence of substances such as asbestos, urea-formaldehyde foam insulation, and other potentially hazardous materials may affect the value of the subject. The opinion of value is predicated on the assumption that there is no such material on or in the subject that would cause a loss in value. No responsibility is assumed for such conditions or for any expertise or engineering knowledge required to discover them. The client is urged to retain an expert in this field, if desired.
- The Americans with Disabilities Act ("ADA") became effective January 26, 1992. We have not made a specific compliance survey and analysis of the property to determine whether or not it conforms to the various detailed requirements of the ADA. It is possible that a compliance survey of the subject, together with a detailed analysis of the requirements of the ADA, could reveal that the subject is not in compliance with one or more of the requirements of the ADA. If so, this fact could have a negative effect upon the value of the subject. Since we have no direct evidence relating to this issue, possible non-compliance with the requirements of the ADA is not considered in our value opinion of the subject.

A. ASSUMPTIONS AND LIMITING CONDITIONS

- This report covers only the real property described herein. Unless specifically stated to the contrary, it does not include consideration of mineral rights or related right of entry, nor personal property or the removal thereof. Values reported herein are not intended to be valid in any other context, nor are any conclusions as to unit values applicable to any other property or utilization that are specifically identified herein.
- The conclusions stated herein, including values that are expressed in terms of the U.S. Dollar, apply only as of the valuation date and are based on prevailing physical and economic conditions and available information at that time. No representation is made as to the effect of subsequent events.

This appraisal report is based on the following general limiting conditions:

- Date(s) and definitions of value, together with other definitions and assumptions on which the analyses are based, are set forth in the appropriate sections of this report. These are to be considered part of the limiting conditions as if included here in their entirety.
- Any allocation of the total value presented in this report between the land and improvements applies only under the stated program of utilization. The separate values allocated to the land and buildings must not be used in conjunction with any other appraisal and are invalid if so used.
- Possession of this report, or a copy thereof, does not carry with it the right of publication. It may not be used for any purpose by any other person than the party to whom it is addressed without our prior written consent, and then only with proper written qualification and only in its entirety.
- We, by reason of this report, are not required to give further consultation or testimony or to be in attendance in court with reference to the subject unless arrangements have been previously made.
- This report has not been prepared for syndication purposes nor is it to be used for syndication purposes without our consent and then only with proper qualifications.
- Neither all nor any part of the contents of this report (especially any conclusions as to value, the identity of the appraiser, or the firm with which the appraiser is connected) shall be disseminated to the public through advertising, public relations, news, sales, or other media without the prior written consent and approval of the appraiser.
- Any value opinions provided in this report apply to the entire property and any proration or division of the total into fractional interests will invalidate the value opinions, unless such proration or division of interests has been set forth in the report.
- If the subject is proposed, only preliminary plans and specifications were available for use in the preparation of this appraisal. If the plans and specifications change, we reserve the right to amend this appraisal.
- Any proposed improvements are assumed to have been completed unless otherwise stipulated; any construction is assumed to conform to the building plans referenced in the report.
- We assume that the reader or user of this report has been provided with copies of available building plans and all leases and amendments, if any, that encumber the subject.
- If no legal description or survey was furnished, we used other methods as described in the report to ascertain the physical dimensions and acreage of the subject. Should a survey prove this information to be inaccurate, it may be necessary for this appraisal to be adjusted.
- The forecasts, projections, or operating estimates contained herein are based on current market conditions, anticipated short-term supply and demand factors, and a continued stable economy. These forecasts are, therefore, subject to changing future economic conditions.

Exhibit B

Appraisal Definitions

B. APPRAISAL DEFINITIONS

The following definition is taken from Financial Institutions Reform, Recovery and Enforcement Act ("FIRREA") Regulations, per final rule, 12 CFR Part 34, (Docket No. 90-16), Federal Register, Volume 56 Number 165, March 31, 1994, effective June 7, 1994, Rules & Regulations.

- Market Value: The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and passing of title from seller to buyer under conditions whereby:

    1. Buyer and seller are typically motivated;
    2. Both parties are well informed or well advised, and acting in what they consider their own best interests;
    3. A reasonable time is allowed for exposure in the open market;
    4. Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and
    5. The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

The following definition is taken from Treas. Regs. §20.2031-1(b) and §25.2512-1; Rev. Rul. 59-60, 1959-1 C.B. 237:

- Fair Market Value: The price at which a property would exchange between a willing buyer and a willing seller, when the former is not under any compulsion to buy, and the latter is not under any compulsion to sell, both having reasonable knowledge of the relevant facts.

The following definitions are taken from *The Dictionary of Real Property Appraisal, Fifth Edition (2010)*, published by the Appraisal Institute.

- Appraisal Report: A written report prepared under Standards Rule 2-2(a) or 8-2(a) of the Uniform Standards of Professional Appraisal Practice (2014-2015 ed.).
- Cash-Equivalent Price: The price of a property with above- or below-market financing expressed in terms of the price that would have been paid in an all-cash sale.
- Contract Rent: The actual rental income specified in a lease.
- Cost Approach: A set of procedures through which a value indication is derived for the fee simple interest in a property by estimating the current cost to construct a reproduction of (or replacement for) the existing structure, including an entrepreneurial incentive, deducting depreciation from the total cost, and adding the estimated land value. Adjustments may then be made to the indicated fee simple value of the subject property to reflect the value of the property interest being appraised.
- Deferred Maintenance: Needed repairs or replacement of items that should have taken place during the course of normal maintenance.
- Direct Capitalization: A method used to convert an estimate of a single year's income expectancy into an indication of value in one direct step, either by dividing the net income estimate by an appropriate capitalization rate or by multiplying the income estimate by an appropriate factor. Direct capitalization employs capitalization rates and multipliers extracted or developed from market data. Only a single year's income is used. Yield and value changes are implied but not identified.
- Discounted Cash Flow (DCF) Analysis: The procedure in which a discount rate is applied to a set of projected income streams and a reversion. The analyst specifies the quantity, variability, timing, and duration of the income streams and the quantity and timing of the reversion, and discounts each to its present value at a specified yield rate.
- Disposition Value: See Liquidation Value.

B. APPRAISAL DEFINITIONS

- Distress Sale: A sale involving a seller acting under duress.
- External Obsolescence: An element of depreciation; a diminution in value caused by negative externalities and generally incurable on the part of the owner, landlord, or tenant.
- Extraordinary Assumption: An assumption, directly related to a specific assignment, as of the effective date of the assignment results, which, if found to be false, could alter the appraiser's opinions or conclusions. Extraordinary assumptions presume as fact otherwise uncertain information about physical, legal, or economic characteristics of the subject property; or about conditions external to the property, such as market conditions or trends; or about the integrity of data used in an analysis. (USPAP, 2014-2015 ed.)
- Fee Simple Estate: Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat.
- Functional Obsolescence: The impairment of functional capacity of a property according to market tastes and standards.
- Going-Concern Value: (1) The market value of all the tangible and intangible assets of an established and operating business with an indefinite life, as if sold in aggregate; more accurately termed the *market value of the going concern*. (2) The value of an operating business enterprise. Goodwill may be separately measured but is an integral component of going-concern value when it exists and is recognizable.
- Gross Lease: A lease in which the landlord receives stipulated rent and is obligated to pay all of the property's operating and fixed expenses; also called *full-service lease*.
- Highest and Best Use: The reasonably probable and legal use of vacant land or an improved property that is physically possible, appropriately supported, financially feasible, and that results in the highest value. The four criteria the highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum productivity. Alternatively, the probable use of land or improved property—specific with respect to the user and timing of the use—that is adequately supported and results in the highest present value.
- Hypothetical Condition: A condition, directly related to a specific assignment, which is contrary to what is known by the appraiser to exist on the effective date of the assignment results, but is used for the purpose of analysis. Hypothetical conditions are contrary to known facts about physical, legal, or economic characteristics of the subject property; or about conditions external to the property, such as market conditions or trends; or about the integrity of data used in an analysis. (USPAP, 2014-2015 ed.)
- Income Capitalization Approach: A set of procedures through which an appraiser derives a value indication for an income-producing property by converting its anticipated benefits (cash flows and reversion) into property value. This conversion can be accomplished in two ways. One year's income expectancy can be capitalized at a market-derived capitalization rate or at a capitalization rate that reflects a specified income pattern, return on investment, and change in the value of the investment. Alternatively, the annual cash flows for the holding period and the reversion can be discounted at a specified yield rate.
- Insurable Value: A type of value for insurance purposes.
- Leased Fee Interest: A freehold (ownership interest) where the possessory interest has been granted to another party by creation of a contractual landlord-tenant relationship (i.e., a lease).
- Leasehold Interest: The tenant's possessory interest created by a lease.
- Liquidation Value: The most probable price that a specified interest in real property should bring under the following conditions:

    1. Consummation of a sale within a short time period.

2. The property is subjected to market conditions prevailing as of the date of valuation.
3. Both the buyer and seller are acting prudently and knowledgeably.
4. The seller is under extreme compulsion to sell.
5. The buyer is typically motivated.
6. Both parties are acting in what they consider to be their best interests.
7. A normal marketing effort is not possible due to the brief exposure time.
8. Payment will be made in cash in U.S. dollars or in terms of financial arrangements comparable thereto.
9. The price represents the normal consideration for the property sold, unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

This definition can be modified to provide for valuation with specified financing terms.

- Market Rent: The most probable rent that a property should bring in a competitive and open market reflecting all conditions and restrictions of the lease agreement, including permitted uses, use restrictions, expense obligations, term, concessions, renewal and purchase options, and tenant improvements (TIs).
- Personal Property: (1) Identifiable tangible objects that are considered by the general public as being "personal"—for example, furnishings, artwork, antiques, gems and jewelry, collectibles, machinery and equipment; all tangible property that is not classified as real estate. (USPAP, 2014-2015 ed.) (2) Consists of every kind of property that is not real property; movable without damage to itself or the real estate; subdivided into tangible and intangible.
- Physical Deterioration: The wear and tear that begins when a building is completed and placed into service.
- Real Property: The interests, benefits, and rights inherent in the ownership of real estate. (USPAP, 2014-2015 ed.)
- Real Property (as listed in the IVS Glossary): All the rights, interests, and benefits related to the ownership of real estate. *Real property* is a legal concept distinct from *real estate*, which is a physical asset. There may also be potential limitations upon ownership rights to real property.
- Restricted Appraisal Report: A written report prepared under Standards Rule 2-2(b) or 8-2(b) of the Uniform Standards of Professional Appraisal Practice (2014-2015 ed.).
- Sales Comparison Approach: The process of deriving a value indication for the subject property by comparing market information for similar properties with the property being appraised, identifying appropriate units of comparison, and making qualitative comparisons with or quantitative adjustments to the sale prices (or unit prices, as appropriate) of the comparable properties based on relevant, market-derived elements of comparison.
- Sales Comparison Approach (as listed in the IVS Glossary): A comparative approach to value that considers the sales of similar or substitute properties and related market data and establishes a value estimate by processes involving comparison. In general, a property being valued (a subject property) is compared with sales of similar properties that have been transacted in the open market. Listings and offerings may also be considered. A general way of estimating a value indication for personal property or an ownership interest in personal property, using one or more methods that compare the subject to similar properties or to ownership interests in similar properties. This approach to the valuation of personal property is dependent upon the Valuer's market knowledge and experience as well as recorded data on comparable items.
- Triple Net Lease (listed in dictionary as net net net lease): A lease in which the tenant assumes all expenses (fixed and variable) of operating a property except that the landlord is responsible for

structural maintenance, building reserves, and management. Also called *NNN*, *triple net lease*, or *fully net lease*.

- Vacancy and Collection Loss: A deduction from potential gross income (*PGI*) made to reflect income reductions due to vacancies, tenant turnover, and nonpayment of rent; also called *vacancy and credit loss* or *vacancy and contingency loss*. Often vacancy and collection loss is expressed as a percentage of potential gross income and should reflect the competitive market. Its treatment can differ according to the interest being appraised, property type, capitalization method, and whether the property is at stabilized occupancy.

Exhibit C

Sale Price Analysis

C. SALE PRICE ANALYSIS

Sale Price Analysis

For statistics relating to the sales pricing analysis, we identified control groups by searching municipalities for residential developments adjacent to truck haul routes with traffic from active mining facilities or backing to truck route roads. We identified four such residential development properties in the Charter Township of Washington, Michigan; Pittsfield Charter Township, Michigan; Ada Township, Michigan; and Macomb Township, Michigan. Further, we identified one control group in the Charter Township of Oxford, Michigan that is surrounded to the north and east by an existing active mine. The control groups were defined as the residential properties within these residential developments and categorized as either backing to truck routes/backing to mine or interior lots.

To the best of our ability, we chose control groups and the residential properties within those control groups that did not, to our knowledge, have any other unusual external factors that would affect the control group. Our goal was to determine whether there has been an impact in value as a result of the proximity to the truck haul routes or mining facilities. By comparing the locations of the residential properties within the control groups, we could attempt to isolate a cause for any changes in value potentially caused to the properties located along a truck haul route or in close proximity to the active mining facility. Further, we chose properties to use in the analysis with as similar attributes as possible; comparing ranch homes backing to truck haul routes to ranch homes on interior lots, 2 story home to 2 story homes, etc. Consideration is given to the control groups for properties with above or below typical amenities such as walk-out basement (W/O), daylite basements, three car garages, etc. Although these properties are not excluded from the analysis, it does account for the wider spread of price differences. The analysis of each control group varies slightly from each other depending on available, reliable information.

In the following pages we will present the five control groups each with applicable maps, analysis tables, and a summary table.

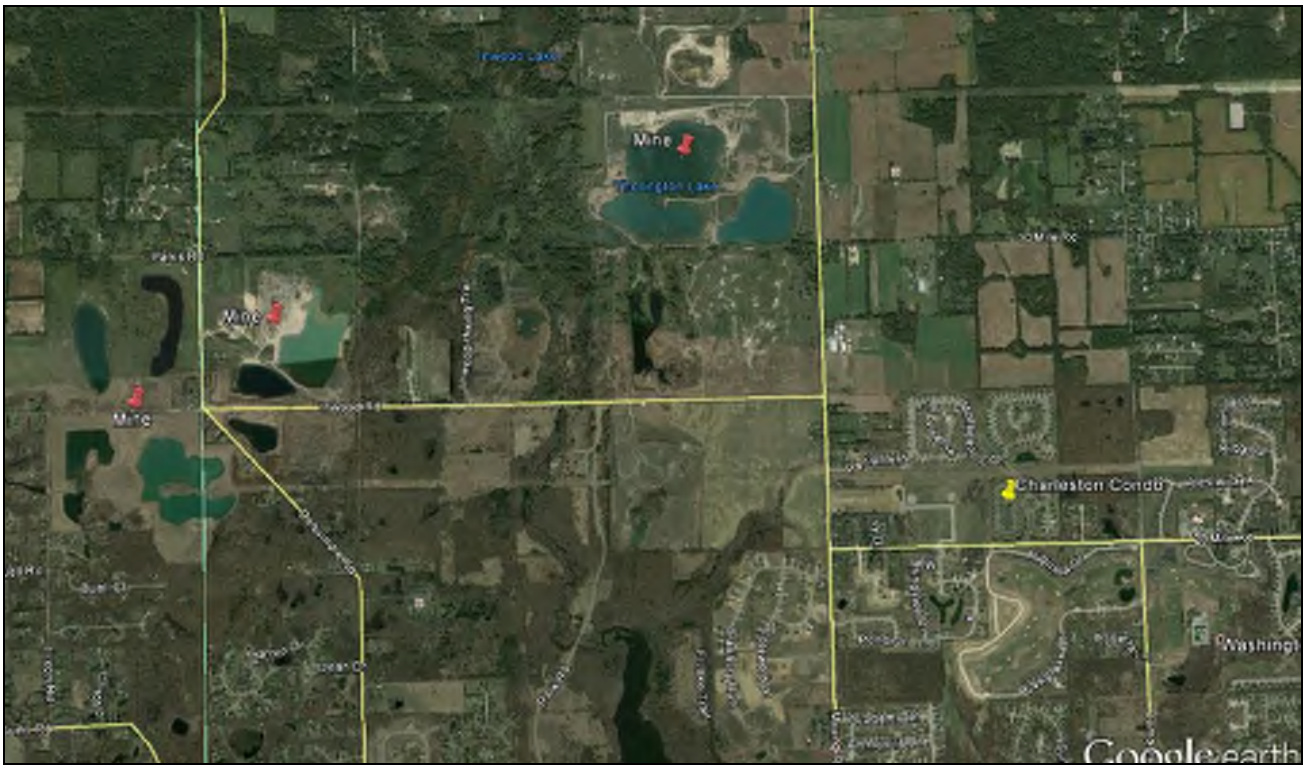
C. SALE PRICE ANALYSIS

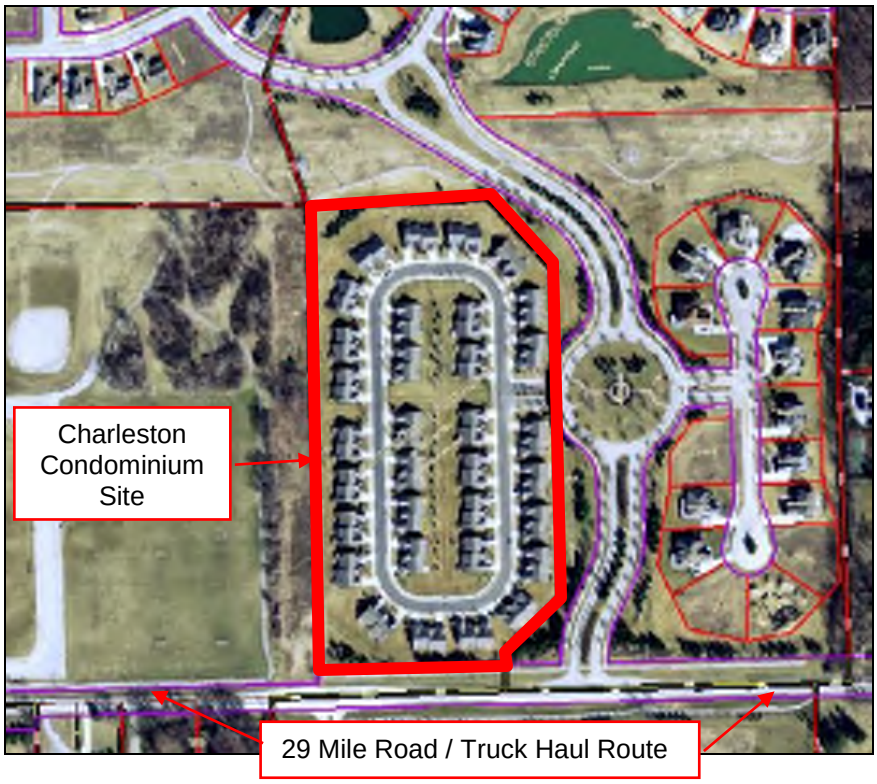
Control Group 1 - The Charleston Condominium – Charter Township of Washington, Macomb County, Michigan

Control Group 1 is a condominium development located at the northwest corner of 29 Mile Road and Strafford Boulevard. According to the Road Commission of Macomb County Truck Operators Map, 29 Mile Road, where the development is located, is a tandem route truck route. 29 Mile Road has historically been a truck haul route for at least three active mines located to the west and northwest of the condominium development.

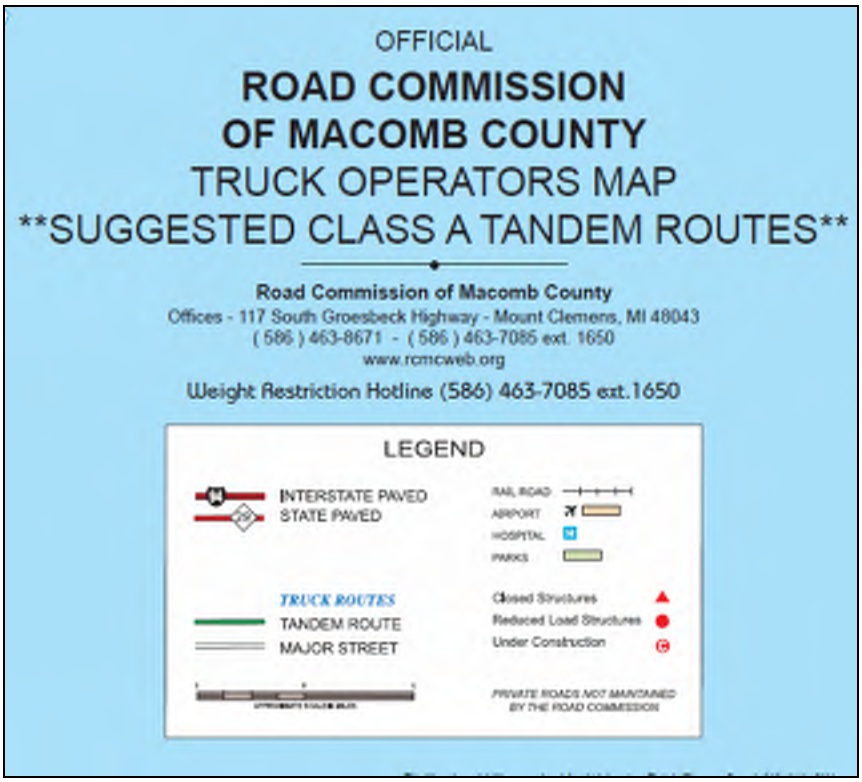
Following are maps showing the overall location of the control group, an aerial Google image of the community showing the location of the control group and mining facilities, a GIS image of the control group from the County, and the appropriate sections of the local truck operator's map.

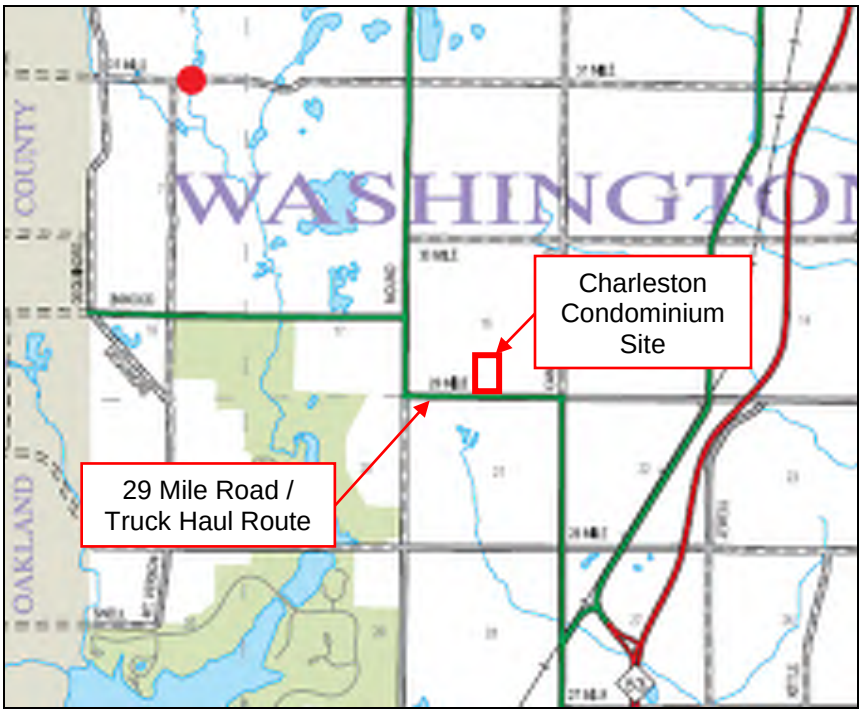
C. SALE PRICE ANALYSIS





C. SALE PRICE ANALYSIS





C. SALE PRICE ANALYSIS

Construction of the duplex units began in 2002 with sales beginning in 2003 and ending mid-year 2005. The development consists of 66 units, eight of which back to 29 Mile Road. Eight units of the development back to high-tension wires. These units have been excluded from the study as it is undetermined if those units could be affected by their location. The sale of improved units from developer/builder to end-user are studied in this analysis.

The following tables outline the sale pricing data used in the analysis and a summary table showing the average and median sale prices per square foot for the condominium units.

The Charleston Condominiums - 2004 Sales
The Charter Township of Washington, Macomb County, Michigan

Parcel Number	Address	Location	Year Built	Style	SF	Bed	Bath	Sale Date	Price	Price/SF
24-04-16-472-029	6964 W Charleston	Truck Route	2004	Ranch	1,554	2	2.5	7/29/2004	$244,428	$157
24-04-16-472-027	6932 W Charleston	Truck Route	2004	Ranch	1,554	2	2.0	7/14/2004	$232,410	$150
24-04-16-472-030	6980 W Charleston	Truck Route	2004	Ranch	1,510	2	2.0	7/14/2004	$241,144	$160
									Count	**3**
									Average	**$156**
									Median	**$157**
24-04-16-472-060	63155 E Charleston	Interior	2004	Ranch	1,554	2	2.0	12/14/2004	$245,830	$158
24-04-16-472-063	63203 E Charleston	Interior	2004	Ranch	1,510	2	2.0	12/4/2004	$223,921	$148
24-04-16-472-062	63187 E Charleston	Interior	2004	Ranch	1,554	2	2.0	12/3/2004	$236,945	$152
24-04-16-472-043	63283 E Charleston	Interior	2002	Ranch	1,510	2	2.0	10/15/2004	$266,900	$177
24-04-16-472-065	63235 E Charleston	Interior	2004	Ranch	1,542	2	2.0	10/15/2004	$232,910	$151
24-04-16-472-056	63172 W Charleston	Interior	2004	Ranch	1,554	2	2.0	9/8/2004	$230,790	$149
24-04-16-472-058	63156 W Charleston	Interior	2003	Ranch	1,510	2	2.0	9/3/2004	$267,004	$177
24-04-16-472-057	63156 W Charleston	Interior	2004	Ranch	1,554	2	2.0	9/2/2004	$224,975	$145
24-04-16-472-053	63220 W Charleston	Interior	2004	Ranch	1,510	2	2.5	8/12/2004	$221,978	$147
24-04-16-472-052	63236 W Charleston	Interior	2004	Ranch	1,554	2	2.0	8/10/2004	$259,140	$167
24-04-16-472-025	63143 W Charleston	Interior	2004	Ranch	1,554	2	2.0	7/19/2004	$254,212	$164
24-04-16-472-045	63315 E Charleston	Interior	2002	Ranch	1,510	2	2.0	6/25/2004	$216,250	$143
24-04-16-472-026	63127 W Charleston	Interior	2004	Ranch	1,510	2	2.0	6/16/2004	$246,350	$163
24-04-16-472-024	63159 W Charleston	Interior	2004	Ranch	1,510	2	2.0	6/9/2004	$239,595	$159
24-04-16-472-047	63332 W Charleston	Interior	2003	Ranch	1,510	2	2.0	6/5/2004	$221,005	$146
24-04-16-472-021	63207 W Charleston	Interior	2004	Ranch	1,554	2	2.0	5/18/2004	$244,641	$157
24-04-16-472-048	63316 W Charleston	Interior	2003	Ranch	1,554	2	2.0	4/30/2004	$223,980	$144
24-04-16-472-046	63331 E Charleston	Interior	2002	Ranch	1,554	2	2.0	3/24/2004	$221,900	$143
									Count	**18**
									Average	**$155**
									Median	**$152**

C. SALE PRICE ANALYSIS

The Charleston Condominiums - 2004 Sales
The Charter Township of Washington, Macomb County, Michigan

Parcel Number	Address	Location	Year Built	Style	SF	Bed	Bath	Sale Date	Price	Price/SF
24-04-16-472-032	7012 E Charleston	Truck Route	2004	1.5 Story	1,810	3	2.5	12/20/2004	$243,555	$135
24-04-16-472-028	6948 W Charleston	Truck Route	2004	1.5 Story	1,810	3	2.5	7/1/2004	$256,035	$141
24-04-16-472-031	6996 E Charleston	Truck Route	2004	1.5 Story	1,854	3	2.5	1/7/2004	$273,780	$148
									Count	**3**
									Average	**$141**
									Median	**$141**
24-04-16-472-059	63140 W Charleston	Interior	2004	1.5 Story	1,854	3	2.5	12/21/2004	$239,735	$129
24-04-16-472-061	63171 E Charleston	Interior	2004	1.5 Story	1,810	3	2.5	12/10/2004	$248,560	$137
24-04-16-472-066	63251 E Charleston	Interior	2004	1.5 Story	1,854	3	2.0	11/9/2004	$252,612	$136
24-04-16-472-064	63219 E Charleston	Interior	2004	1.5 Story	1,854	3	2.5	11/3/2004	$252,355	$136
24-04-16-472-044	63299 E Charleston	Interior	2002	1.5 Story	1,854	3	2.5	9/30/2004	$267,900	$144
24-04-16-472-054	63204 W Charleston	Interior	2004	1.5 Story	1,854	3	2.5	8/18/2004	$247,092	$133
24-04-16-472-051	63252 W Charleston	Interior	2004	1.5 Story	1,810	3	2.5	8/5/2004	$259,738	$144
24-04-16-472-023	63175 W Charleston	Interior	2004	1.5 Story	1,854	3	2.5	6/4/2004	$265,641	$143
24-04-16-472-022	63191 W Charleston	Interior	2004	1.5 Story	1,810	3	2.5	5/26/2004	$256,845	$142
24-04-16-472-020	63223 W Charleston	Interior	2004	1.5 Story	1,810	3	2.5	5/14/2004	$253,010	$140
24-04-16-472-019	63239 W Charleston	Interior	2003	1.5 Story	1,854	3	2.5	5/4/2004	$249,420	$135
									Count	**11**
									Average	**$138**
									Median	**$137**

The Charleston Condominiums - 2005 Sales
The Charter Township of Washington, Macomb County, Michigan

Parcel Number	Address	Location	Year Built	Style	SF	Bed	Bath	Sale Date	Price	Price/SF
24-04-16-472-033	7028 E Charleston	Truck Route	2004	1.5 Story	1,854	3	2.5	1/3/2005	$266,348	$144
24-04-16-472-034	7044 E Charleston	Truck Route	2004	1.5 Story	1,810	2	2.5	1/13/2005	$259,321	$143
									Count	**2**
									Average	**$143**
									Median	**$143**
24-04-16-472-041	63224 E Charleston	Interior	2004	1.5 Story	1,854	3	2.5	2/15/2005	$254,515	$137
24-04-16-472-037	63160 E Charleston	Interior	2004	1.5 Story	1,854	3	2.5	2/11/2005	$263,205	$142
24-04-16-472-039	63192 E Charleston	Interior	2004	1.5 Story	1,854	3	2.5	2/11/2005	$257,820	$139
24-04-16-472-035	63128 E Charleston	Interior	2004	1.5 Story	1,820	3	2.5	1/17/2005	$248,310	$136
24-04-16-472-055	63188 W Charleston	Interior	2004	1.5 Story	1,810	3	2.5	7/15/2005	$242,000	$134
24-04-16-472-042	63240 E Charleston	Interior	2004	1.5 Story	1,810	3	2.5	3/24/2005	$251,705	$139
									Count	**6**
									Average	**$138**
									Median	**$138**

C. SALE PRICE ANALYSIS

Control Group 1 Summary
The Charleston Condominium
Charter Township of Washington, Macomb County, Michigan

	Style	Location	# of Sample Properties	Average $/SF	Median $/SF
		2004 Sales			
1	Ranch	Backing to Truck Route	3	$156	$157
2	Ranch	Interior	18	155	152
3	1.5 Story	Backing to Truck Route	3	141	141
4	1.5 Story	Interior	11	138	137
		2005 Sales			
5	1.5 Story	Backing to Truck Route	2	143	143
6	1.5 Story	Interior	6	138	138

Source: Charter Township of Washington BS&A Assessing Data.

As can be seen in each style type and year, the units backing to truck haul routes have obtained a slightly higher price per square foot than the interior lots.

C. SALE PRICE ANALYSIS

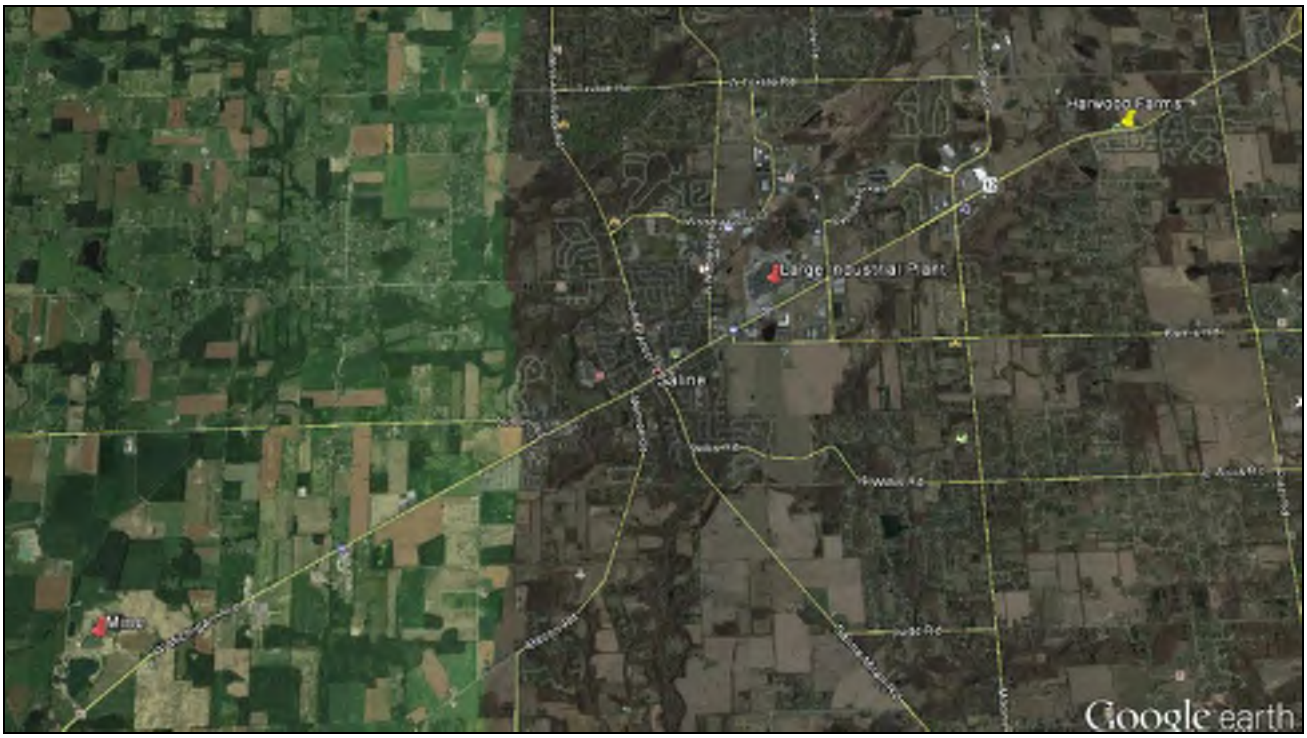
Control Group 2 - Harwood Farms – Pittsfield Charter Township, Washtenaw County, Michigan

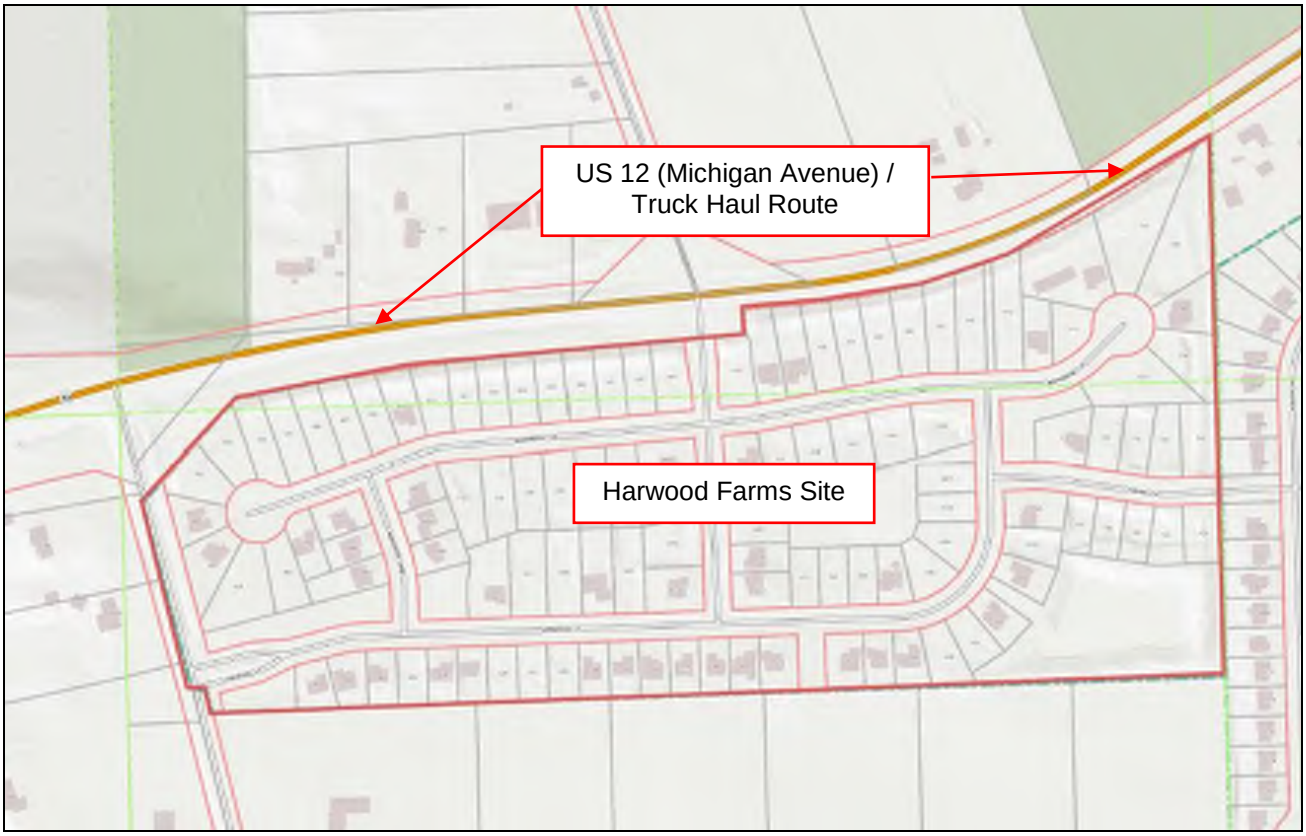
Control Group 2 is a residential development located south of US 12 (Michigan Avenue) and west of Platt Road. According to Michigan Department of Transportation (MDOT) and the National Functional Classification (NFC) for Washtenaw County, US 12, where the development is located, is rated as an Other Principal Arterial road. The Truck Operator's Map Washtenaw County Michigan rates US 12 as a State Highways road. US 12 has historically and continues to be a truck haul route servicing the city of Saline to the southwest and the city of Ypsilanti to the northeast with easy access to US-23 and I-94. US 12 services large industrial plants and other manufacturing facilities which demand trucking services. Further, to the southwest of the development is an active mine.

Following are maps showing the overall location of the control group, an aerial Google image of the community showing the location of the control group, industrial uses and mining facility, a GIS image of the control group from the County, a marketing site map, and the appropriate sections of the local truck operator's map.

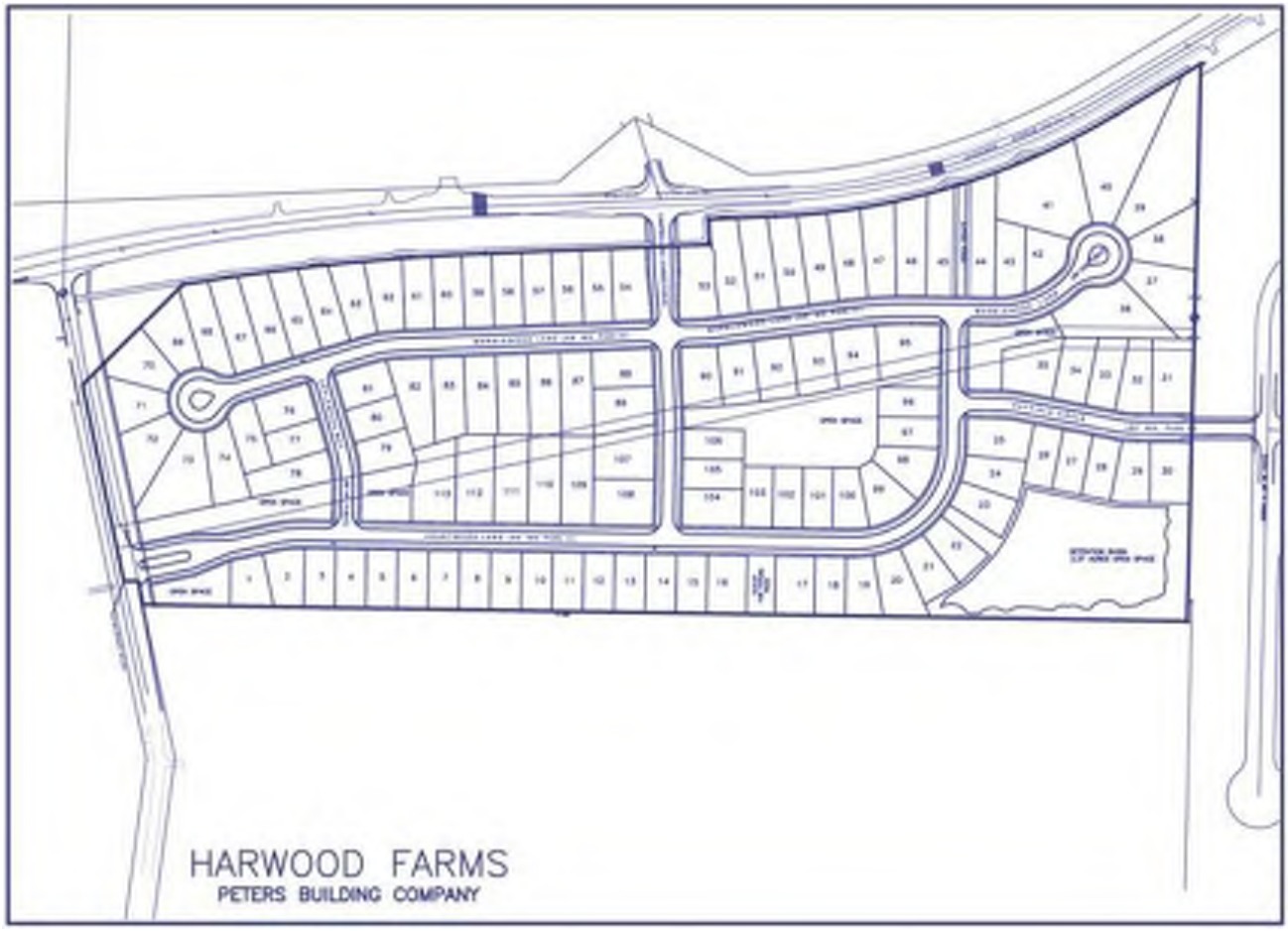
Washtenong Memorial Park
Barton Hills
Ann Arbor
Superior
Ypsilanti
MICHIGAN
WASHTENAW
Ann Arbor Municipal Airport
Lillie Park
Ford Lake
Ford Lake Park System
Ford Motor Company
Rolling Hills County Park
Saline
Pittsfield
Harwood Farms
Pittsfield Charter Twp
Washington Co, MI
Plymouth Rd
Geddes Rd
Packard Rd
Ellsworth Rd
W Liberty St
W Liberty Rd
Scio Church Rd
Pleasant Lake Rd
Textile Rd
W Textile Rd
W Willis Rd
E Willis Rd
Willis Rd
Austin Rd
Wills Rd
Holmes Rd
E Clark Rd
E Cross St
Grove Rd
W Michigan Ave
Stony Creek Rd
Whittaker Rd
Harris Rd
Prospect Rd
Platt Rd
Maple Rd
Ann Arbor Saline Rd
N Maple Rd
Moon Rd
Earhart Rd
Fuller Rd
Huron River Dr
Dexter Ann Arbor Rd
Dexter Ave
Miller Ave
Newport Rd
Packard Rd
N Wagner Rd
S Wagner Rd
N Main St
S Main St
N Stadium Blvd
S Stadium Blvd
N State St
S State St
N Division St
S Division St
N Huron River Dr
N Prospect Rd
N Platt Rd
N Maple Rd
S Maple Rd
S Huron St
S State Rd
Ann Arbor Saline Rd
Ann Arbor-Ypsilanti Rd
Ann Arbor-Saline Rd
Ann Arbor-Plymouth Rd
Ann Arbor-Dexter Rd
Ann Arbor-Detroit Rd
Ann Arbor-Chelsea Rd
Ann Arbor-Brighton Rd
Ann Arbor-Ann Arbor Rd
Ann Arbor-Ann Arbor Rd
Ann Arbor-Ann Arbor

C. SALE PRICE ANALYSIS

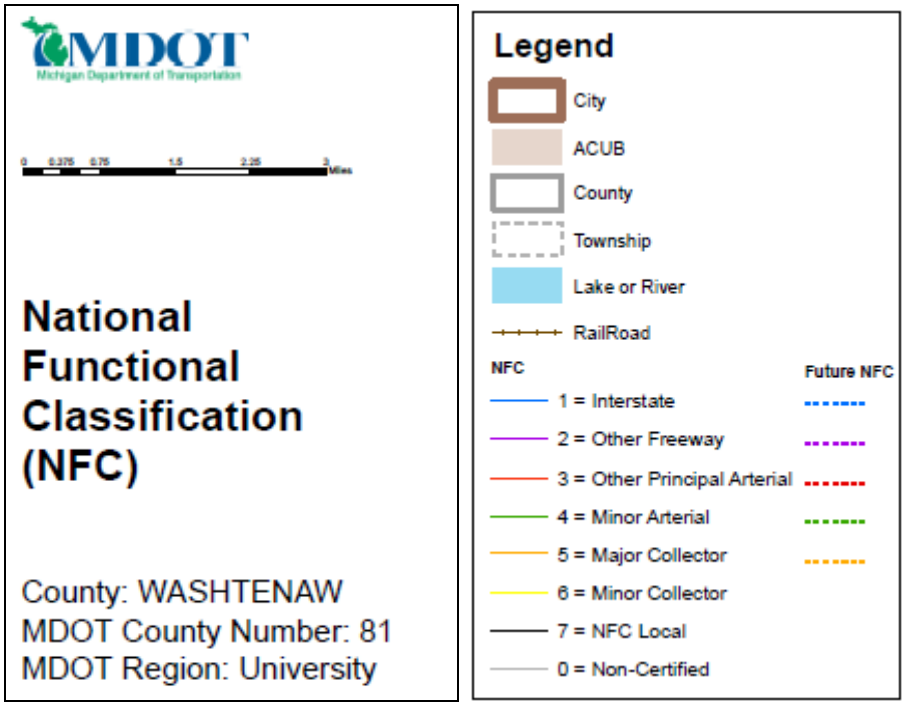


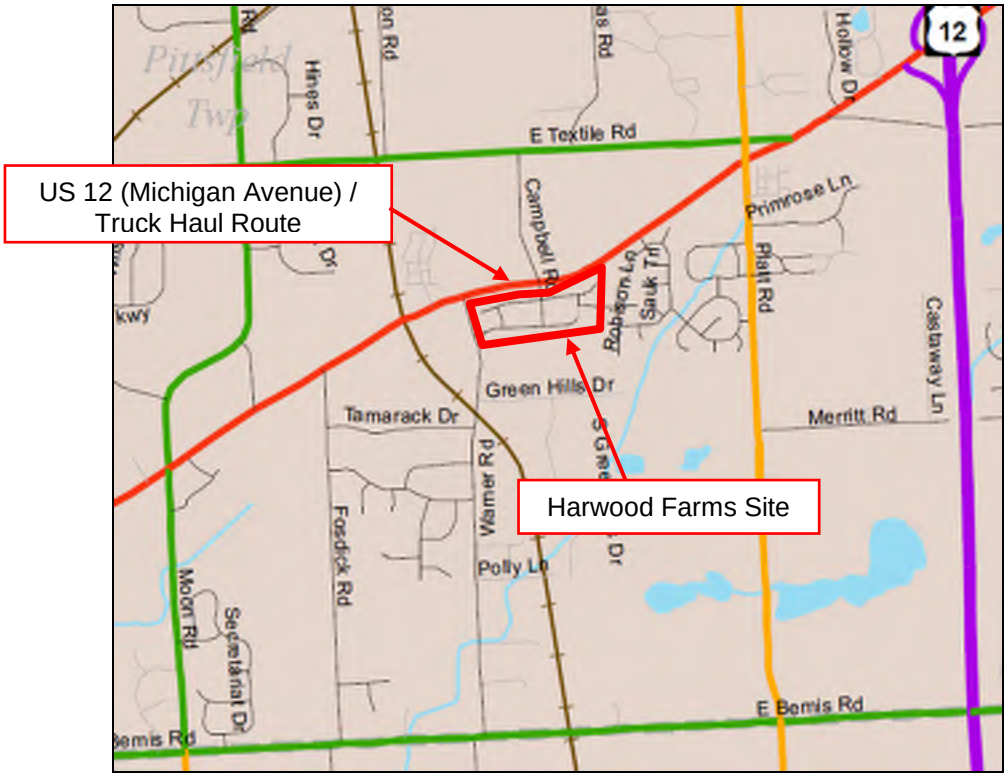


C. SALE PRICE ANALYSIS

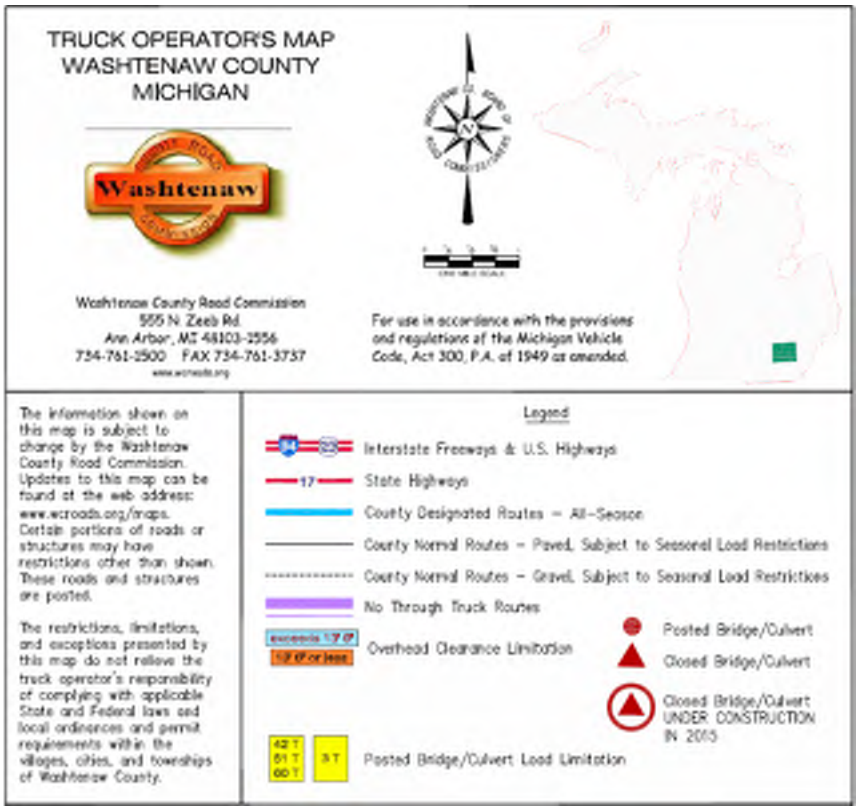


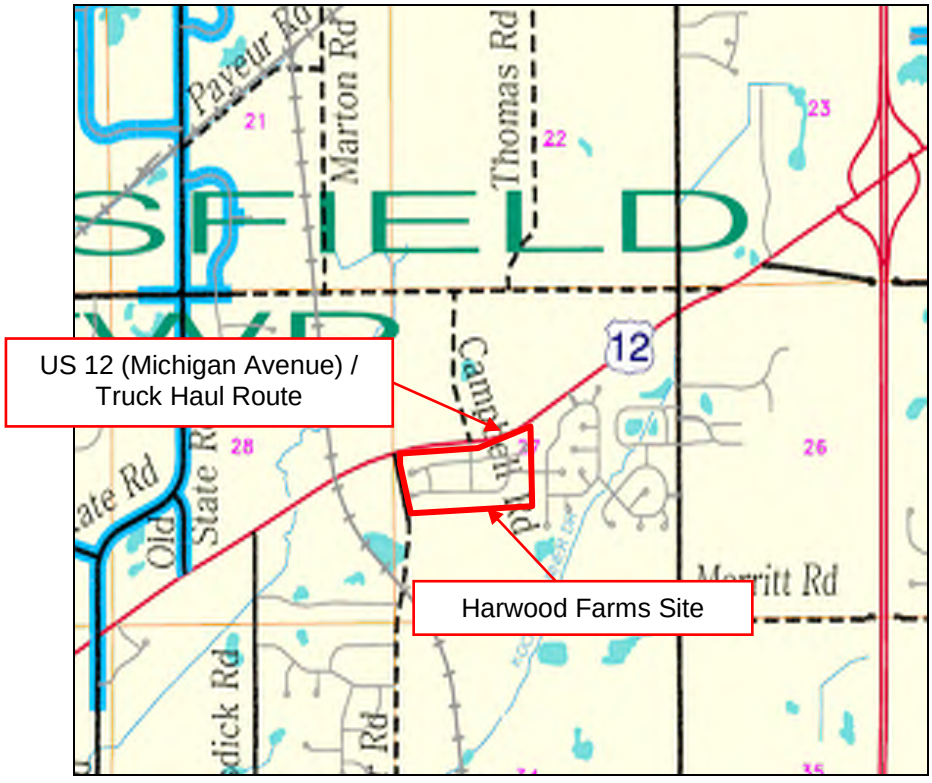
C. SALE PRICE ANALYSIS





C. SALE PRICE ANALYSIS





C. SALE PRICE ANALYSIS

Construction of the residential development began in 2005 with sales beginning in 2006. Construction stalled in 2007 and 2008 with recent sales activity gaining momentum in 2014 and 2015. The development consists of 113 lots, 30 of which back to US 12. Several of the lots of the development back to ponds, semi-busy road, or open spaces. These lots have been excluded from the study as it is undetermined if those lots could be affected by location. The sales of vacant lots as and the sale of completed homes (improved lots) from developer/builder to end-user are studied in this analysis.

The following tables outline the sale pricing data used in the analysis and a summary table showing the average and median sales price per lot and the average and median sale prices per square foot for the improved lot sales.

Harwood Farms - Vacant Lot Sales Years 2006 through 2007
Pittsfield Charter Township, Washtenaw County, Michigan

Address	Parcel Number	Location	Sale Date	Sale Price
609 Marblewood Ln	L -12-27-305-052	Backing to Truck Route	7/31/2007	$88,500
509 Marblewood Ln	L -12-27-305-063	Backing to Truck Route	12/15/2006	$68,000
617 Marblewood Ln	L -12-27-305-051	Backing to Truck Route	7/28/2006	$88,500
733 Marblewood Ln	L -12-27-305-041	Backing to Truck Route	6/27/2006	$88,500
			Count	**4**
			Average	**$83,375**
			Median	**$88,500**
6489 Applewood Way	L -12-27-305-079	Interior	9/12/2007	$88,500
519 Heartwood Ln	L -12-27-305-113	Interior	1/25/2007	$88,500
6466 Campbell Rd	L -12-27-305-088	Interior	12/8/2006	$88,500
6477 Applewood Way	L -12-27-305-080	Interior	11/3/2006	$88,500
6465 Applewood Way	L -12-27-305-081	Interior	8/18/2006	$88,500
6525 Heartwood Ln	L -12-27-305-025	Interior	7/20/2006	$88,500
6517 Campbell Rd	L -12-27-305-104	Interior	6/19/2006	$88,500
6484 Applewood Way	L -12-27-305-077	Interior	6/13/2006	$88,500
555 Heartwood Ln	L -12-27-305-110	Interior	6/7/2006	$88,500
6512 Campbell Rd	L -12-27-305-108	Interior	5/25/2006	$88,500
448 Marblewood Ln	L -12-27-305-075	Interior	4/28/2006	$88,500
6472 Applewood Way	L -12-27-305-076	Interior	4/20/2006	$88,500
			Count	**12**
			Average	**$88,500**
			Median	**$88,500**

C. SALE PRICE ANALYSIS

Harwood Farms - Vacant Lot Sales Years 2013 through Current 2015
Pittsfield Charter Township, Washtenaw County, Michigan

Address	Parcel Number	Location	Sale Date	Sale Price
649 Marblewood Ln	L -12-27-305-047	Backing to Truck Route	6/17/2015	$60,000
539 Marblewood Ln	L -12-27-305-058	Backing to Truck Route	4/6/2015	$60,000
			Count	**2**
			Average	**$60,000**
			Median	**$60,000**
730 Marblewood Ln	L -12-27-305-036	Interior	5/22/2015	$60,000
534 Marblewood Ln	L -12-27-305-084	Interior	8/28/2013	$60,000
			Count	**2**
			Average	**$60,000**
			Median	**$60,000**

Harwood Farms - Improved Sales Year 2014 Through Current 2015
Pittsfield Charter Township, Washtenaw County, Michigan

Address	Parcel Number	Location	Sale Date	Sale Price	Year Built	Style	Amenities	$/SF
459 Marblewood Ln	L -12-27-305-066	Backing to Truck Route	5/29/2015	$231,421	2014	Ranch		$164
545 Marblewood Ln	L -12-27-305-057	Backing to Truck Route	4/23/2015	$283,202	2014	Ranch		$160
741 Marblewood Ln	L -12-27-305-040	Backing to Truck Route	2/4/2015	$319,021	2014	Ranch		$166
625 Marblewood Ln	L -12-27-305-050	Backing to Truck Route	12/18/2014	$301,150	2014	Ranch	3 Car Gar	$168
427 Marblewood Ln	L -12-27-305-070	Backing to Truck Route	11/25/2014	$264,691	2014	Ranch	3 Car Gar	$175
							Count	**5**
							Average	**$167**
							Median	**$166**
548 Marblewood Ln	L -12-27-305-086	Interior	4/9/2015	$333,944	2014	Ranch		$175
526 Marblewood Ln	L -12-27-305-083	Interior	2/6/2015	$339,641	2014	Ranch		$161
542 Marblewood Ln	L -12-27-305-085	Interior	1/14/2015	$295,191	2014	Ranch		$170
543 Heartwood Ln	L -12-27-305-111	Interior	9/16/2014	$287,981	2014	Ranch		$153
531 Heartwood Ln	L -12-27-305-112	Interior	6/24/2014	$275,235	2014	Ranch		$150
739 Hatfield Cir	L -12-27-305-032	Interior	6/13/2014	$246,311	2014	Ranch		$162
							Count	**6**
							Average	**$162**
							Median	**$161**

C. SALE PRICE ANALYSIS

Harwood Farms - Improved Sales Years 2014 Through Current 2015
Pittsfield Charter Township, Washtenaw County, Michigan

Address	Parcel Number	Location	Sale Date	Sale Price	Year Built	Style	Amenities	$/SF
451 Marblewood Ln	L -12-27-305-067	Backing to Truck Route	12/24/2014	$306,137	2014	2 Story		$150
							Count	**1**
							Average	**$150**
							Median	**$150**
556 Marblewood Ln	L -12-27-305-087	Interior	6/25/2015	$350,825	2014	2 Story		$136
6480 Campbell Rd	L -12-27-305-089	Interior	6/17/2015	$290,900	2014	2 Story		$134
518 Marblewood Ln	L -12-27-305-082	Interior	7/7/2014	$308,157	2014	2 Story		$151
731 Hatfield Cir	L -12-27-305-033	Interior	4/28/2014	$258,073	2013	2 Story		$120
749 Marblewood Ln	L -12-27-305-039	Interior	4/10/2014	$297,906	2013	2 Story		$136
563 Heartwood Ln	L -12-27-305-109	Interior	3/6/2014	$285,114	2013	2 Story		$131
							Count	**5**
							Average	**$135**
							Median	**$135**

Control Group 2 Summary
Harwood Farms
Pittsfield Charter Township, Washtenaw County, Michigan

Vacant Lot Sales

	Style	Location	# of Sample Properties	Average Price	Median Price
		Years 2006 - 2007			
1	Vacant Lot	Backing to Truck Route	4	$83,375	$88,500
2	Vacant Lot	Interior	12	88,500	88,500
		Years 2013 - Current 2015			
3	Vacant Lot	Backing to Truck Route	2	60,000	60,000
4	Vacant Lot	Interior	2	60,000	60,000

Improved Builder/Developer Sales

	Style	Location	# of Sample Properties	Average $/SF	Median $/SF
		Years 2014 - Current 2015			
5	Ranch	Backing to Truck Route	5	$167	$166
6	Ranch	Interior	6	162	161
7	2 Story	Backing to Truck Route	1	150	150
8	2 Story	Interior	5	135	135

Source: Pittsfield Charter Township BS&A Assessing Data.

As can be seen, the pricing is consistant for vacant lots backing to truck haul routes with interior lots. Further, the improved sales backing to truck haul routes have obtained a slightly higher price per square foot, on average and median, than the interior lots.

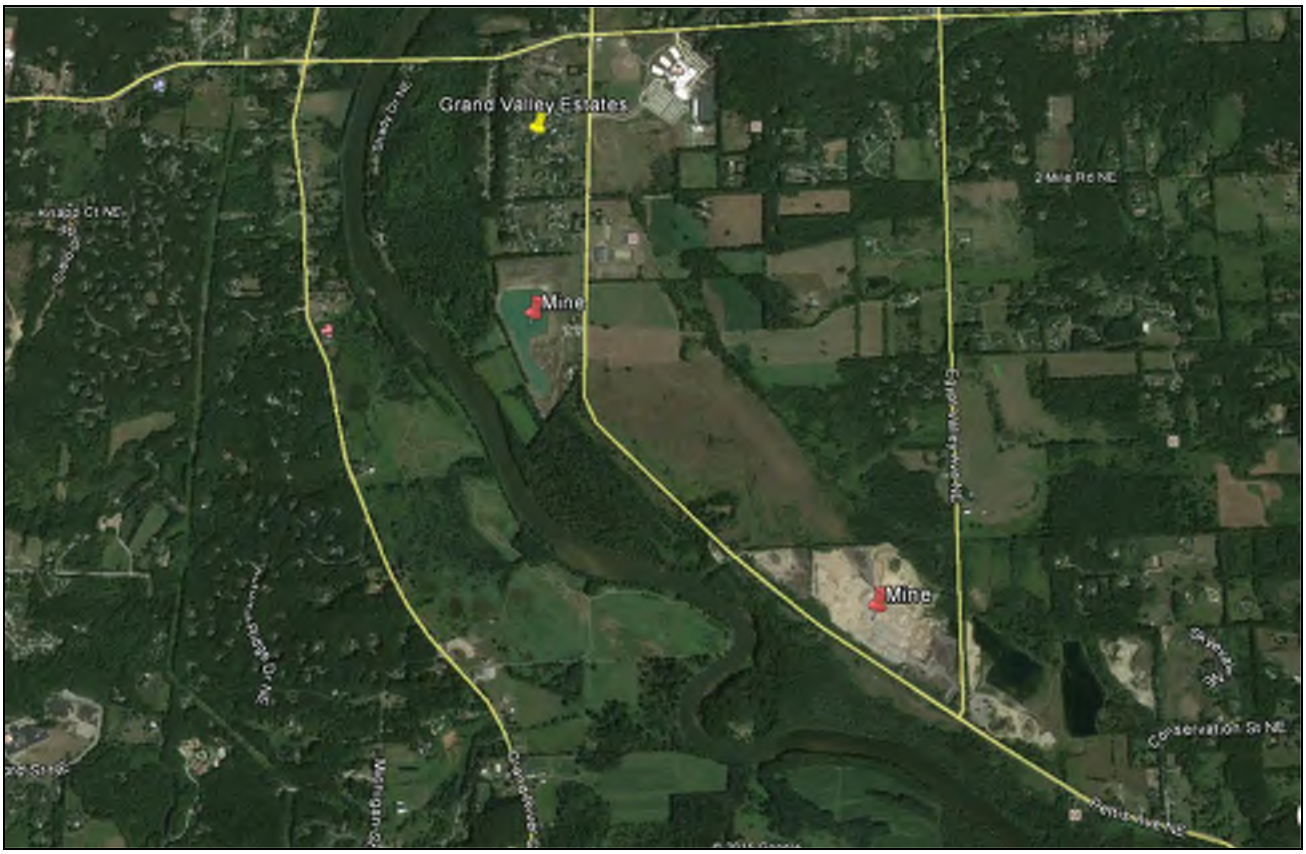
C. SALE PRICE ANALYSIS

Control Group 3 - Grand Valley Estates, Ada Township, Kent County, Michigan

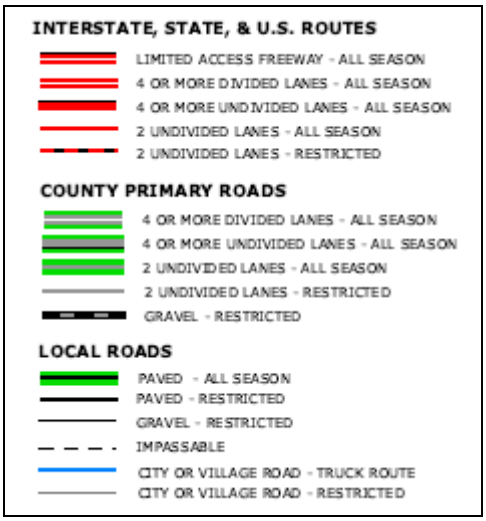
Control Group 3 is a residential development located southwest of Knapp Street NE and Pettis Avenue NE. According to the Truck Operator's Map Kent County Michigan, Knapp Street NE and Pettis Avenue NE, which run along the northern and eastern borders of the development, are described as a two undivided lanes – all season roads. These roads have historically and continue to be truck haul routes servicing two mining facilities; one is located to the southeast with ongoing mining activity and the second is located contiguous to the south of the subject having had a limited mining life.

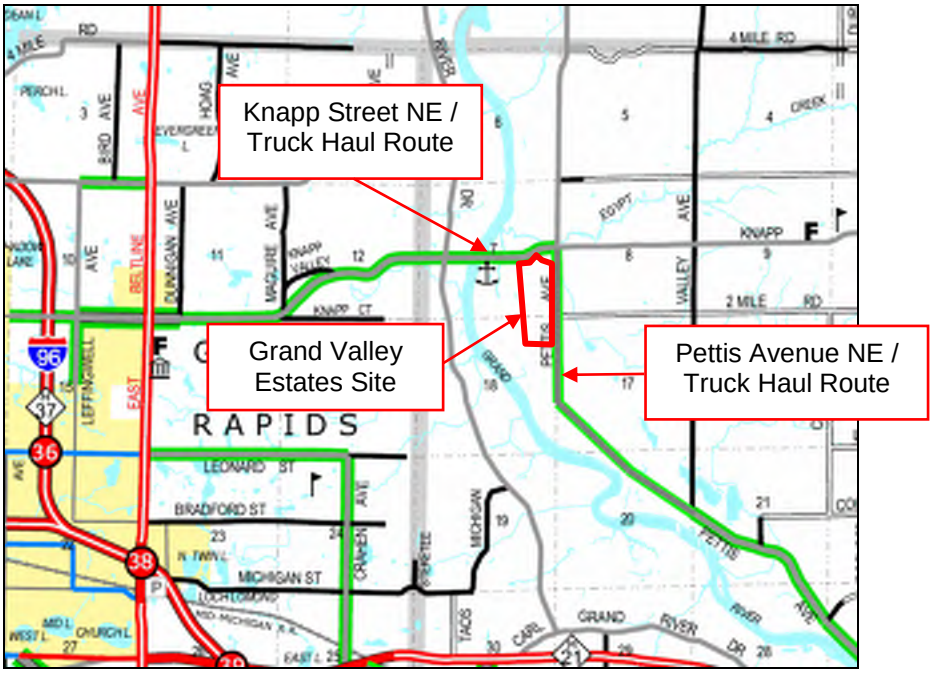
On the following pages are maps showing the overall location of the control group, an aerial Google image of the community showing the location of the control group and mining facilities, a GIS image of the control group from the County, and the appropriate sections of the local truck operator's map.

C. SALE PRICE ANALYSIS



C. SALE PRICE ANALYSIS





C. SALE PRICE ANALYSIS

Plats for the residential development are recorded in 1997 and 1992 with an amended plat dated in 1999. Sites within this development back to Pettis Avenue NE and side Knapp Street NE. The resale of improved lots in this development were studied to analyze market value differences between interior lots as compared to lots backing active truck haul routes.

The following tables outline the sale pricing data from comparable homes from similar time periods used in the analysis and a summary table showing the average and median sale prices per square foot for the resale of improved properties.

Grand Valley Estates - Improved Sales 2003
Ada Township, Kent County, Michigan

Number	Street Name	Dir	Style	SF	Location	Amenities	Year Built	Sale Date	Sale Price	Price/SF
2302	Grand Valley	NE	2 Story	2,660	Backs to Truck Route	DayLite, 3 Car Gar	2002	10/5/2003	$360,000	$135
									Count	**1**
									Average	**$135**
									Median	**$135**
2228	Knollpoint	NE	2 Story	2,458	Interior	DayLite	1995	7/10/2003	$339,500	$138
1995	Wellpoint Ct	NE	2 Story	2,724	Interior	W/O, 3 Car Gar	1998	5/23/2003	$390,000	$143
									Count	**2**
									Average	**$141**
									Median	**$141**

Grand Valley Estates - Improved Sales 2004
Ada Township, Kent County, Michigan

Number	Street Name	Dir	Style	SF	Location	Amenities	Year Built	Sale Date	Sale Price	Price/SF
2391	Grand Valley	NE	1.5 Story	2,600	Sides to Truck Route	DayLite, 3 Car Gar	2004	11/19/2004	$399,900	$154
2130	Grand Valley	NE	1.5 Story	2,200	Backs to Truck Route	W/O, 3 Car Gar	1995	8/11/2004	$342,500	$156
									Count	**2**
									Average	**$155**
									Median	**$155**
2120	Knollpoint	NE	1.5 Story	2,554	Interior	W/O, 3 Car Gar	1994	6/4/2004	$380,000	$149
									Count	**1**
									Average	**$149**
									Median	**$149**

Grand Valley Estates - Improved Sales 2006
Ada Township, Kent County, Michigan

Number	Street Name	Dir	Style	SF	Location	Amenities	Year Built	Sale Date	Sale Price	Price/SF
2391	Grand Valley	NE	1.5 Story	2,550	Sides to Truck Route	DayLite, 3 Car Gar	2004	6/8/2006	$425,000	$167
									Count	**1**
									Average	**$167**
									Median	**$167**
1971	Wellpoint Ct	NE	1.5 Story	2,851	Interior	W/O, 3 Car Gar	2003	6/28/2006	$340,000	$119
									Count	**1**
									Average	**$119**
									Median	**$119**

C. SALE PRICE ANALYSIS

Grand Valley Estates - Improved Sales 2008
Ada Township, Kent County, Michigan

Number	Street Name	Dir	Style	SF	Location	Amenities	Year Built	Sale Date	Sale Price	Price/SF
5585	Pettis	NE	2 Story	2,178	Backs to Truck Route	None	1994	6/16/2008	$268,900	$123
									Count	**1**
									Average	**$123**
									Median	**$123**
2261	Grand Valley	NE	2 Story	2,700	Interior	DayLite, 3 Car Gar	1998	4/4/2008	$341,000	$126
									Count	**1**
									Average	**$126**
									Median	**$126**

Grand Valley Estates - Improved Sales 2012-2013
Ada Township, Kent County, Michigan

Number	Street Name	Dir	Style	SF	Location	Amenities	Year Built	Sale Date	Sale Price	Price/SF
2320	Grand Valley	NE	Ranch	2,438	Backs to Truck Route	W/O, 3 Car Gar	1996	4/27/2012	$365,000	$150
									Count	**1**
									Average	**$150**
									Median	**$150**
2233	Knollpoint	NE	Ranch	2,485	Interior	W/O, 3 Car Gar	1996	8/12/2013	$370,000	$149
2357	Grand Valley	NE	Ranch	2,356	Interior	W/O, 3 Car Gar	1996	7/29/2013	$368,000	$156
									Count	**2**
									Average	**$153**
									Median	**$153**

C. SALE PRICE ANALYSIS

Control Group 3 Summary
Grand Valley Estates
Ada Township, Kent County, Michigan

	Style	Location	# of Sample Properties	Average $/SF	Median $/SF
		2003 Sales			
1	2 Story	Backing to Truck Route	1	$135	$135
2	2 Story	Interior	2	141	141
		2004 Sales			
3	1.5 Story	Backing/Siding to Truck Route	2	155	155
4	1.5 Story	Interior	1	149	149
		2006 Sales			
5	1.5 Story	Siding to Truck Route	1	167	167
6	1.5 Story	Interior	1	119	119
		2008 Sales			
7	2 Story	Backing to Truck Route	1	123	123
8	2 Story	Interior	1	126	126
		2012-2013 Sales			
9	Ranch	Backing to Truck Route	1	150	150
10	Ranch	Interior	2	153	153

Source: SWMRIC Flexmls Web / Grand Rapids Association of Realtors.

It is noticeable that there is not an obvious impact of site location backing to or siding a truck haul route as compared to an interior lot.

Due to the limited number of sales in each of the above groupings, an additional look was taken at comparable home sales over the entire time period to isolate if there is an adverse effect on values reflected in the site location within the development. The following tables outline the sale pricing data used in the analysis showing the average and median sale prices per square foot for sales and resale of improved properties trended to current pricing. The trending allows for additional sales to be utilized providing a larger pool of data.

C. SALE PRICE ANALYSIS

Grand Valley Estates - Improved Ranch Sales
Ada Township, Kent County, Michigan

												Current Date	7/20/2015
												Annual Market Conditions Adjustment	2.25%
Number	**Street Name**	**Dir**	**Style**	**SF**	**Location**	**Amenities**	**Year Built**	**Sale Date**	**Sale Price**	**Price/SF**	**Years to Current**	**Total Adjustment Applied**	**Adjusted to Current Price**
2320	Grand Valley	NE	Ranch	2,438	Backs to Truck Route	W/O, 3 Car Gar	1996	4/27/2012	$365,000	$150	3.23	7.27%	$161
2194	Grand Valley	NE	Ranch	1,850	Backs to Truck Route	DayLite, 3 Car Gar	1994	5/22/2006	$215,000	$116	9.17	20.63%	$140
												Count	**2**
												Average	**$150**
												Median	**$150**
2233	Knollpoint	NE	Ranch	2,485	Interior	W/O, 3 Car Gar	1996	8/12/2013	$370,000	$149	1.94	4.36%	$155
2357	Grand Valley	NE	Ranch	2,356	Interior	W/O, 3 Car Gar	1996	7/29/2013	$368,000	$156	1.98	4.44%	$163
2133	Knollpoint	NE	Ranch	2,294	Interior	W/O	1993	3/31/2010	$410,000	$179	5.31	11.94%	$200
2089	Knollpoint	NE	Ranch	2,368	Interior	W/O, 3 Car Gar	1994	5/9/2008	$415,000	$175	7.20	16.20%	$204
2133	Knollpoint	NE	Ranch	2,294	Interior	W/O	1993	10/3/2006	$345,000	$150	8.80	19.80%	$180
2205	Knollpoint	NE	Ranch	2,512	Interior	W/O, 3 Car Gar	1994	6/8/2004	$359,900	$143	11.12	25.02%	$179
												Count	**6**
												Average	**$180**
												Median	**$180**

Grand Valley Estates - Improved 1.5 Story Sales
Ada Township, Kent County, Michigan

												Current Date	7/20/2015
												Annual Market Conditions Adjustment	2.25%
Number	**Street Name**	**Dir**	**Style**	**SF**	**Location**	**Amenities**	**Year Built**	**Sale Date**	**Sale Price**	**Price/SF**	**Years to Current**	**Total Adjustment Applied**	**Adjusted to Current Price**
2130	GRAND VALLEY	NE	1.5 Story	1,968	Backs to Truck Route	W/O, 3 Car Gar	1995	6/15/2015	$351,750	$179	0.10	0.22%	$179
2130	Grand Valley	NE	1.5 Story	2,200	Backs to Truck Route	W/O, 3 Car Gar	1995	8/11/2004	$342,500	$156	10.95	24.63%	$194
2391	Grand Valley	NE	1.5 Story	2,550	Sides to Truck Route	DayLite, 3 Car Gar	2004	6/8/2006	$425,000	$167	9.12	20.52%	$201
2391	Grand Valley	NE	1.5 Story	2,600	Sides to Truck Route	DayLite, 3 Car Gar	2004	11/19/2004	$399,900	$154	10.67	24.01%	$191
												Count	**4**
												Average	**$191**
												Median	**$192**
5401	Grand Valley	NE	1.5 Story	2,639	Interior	W/O, 6 Car Gar	1995	6/27/2014	$495,000	$188	1.06	2.39%	$192
2260	Knollpoint	NE	1.5 Story	3,681	Interior	W/O, 3 Car Gar	1997	6/6/2014	$509,000	$138	1.12	2.52%	$142
2011	Knollpoint	NE	1.5 Story	2,832	Interior	W/O, 3 Car Gar	1994	10/3/2012	$330,000	$117	2.79	6.29%	$124
2157	Grand Valley	NE	1.5 Story	2,184	Interior	W/O, 3 Car Gar	1997	6/26/2012	$310,500	$142	3.07	6.90%	$152
2260	Knollpoint	NE	1.5 Story	3,681	Interior	W/O, 3 Car Gar	1996	10/31/2007	$450,000	$122	7.72	17.38%	$143
1971	Wellpoint Ct	NE	1.5 Story	2,851	Interior	W/O, 3 Car Gar	2003	6/28/2006	$340,000	$119	9.07	20.40%	$144
2011	Knollpoint	NE	1.5 Story	2,796	Interior	W/O, 3 Car Gar	1994	3/22/2005	$315,000	$113	10.33	23.25%	$139
2120	Knollpoint	NE	1.5 Story	2,554	Interior	W/O, 3 Car Gar	1994	6/4/2004	$380,000	$149	11.13	25.05%	$186
2190	Knollpoint	NE	1.5 Story	2,771	Interior	W/O, 3 Car Gar	1996	6/1/2002	$329,900	$119	13.14	29.57%	$154
2323	Grand Valley	NE	1.5 Story	2,747	Interior	3 Car Gar	1993	5/24/2002	$377,500	$137	13.16	29.62%	$178
2070	Knollpoint	NE	1.5 Story	2,897	Interior	DayLite, 3 Car Gar	1997	8/17/2001	$360,000	$124	13.93	31.35%	$163
												Count	**11**
												Average	**$156**
												Median	**$152**

C. SALE PRICE ANALYSIS

Grand Valley Estates - Improved 2 Story Sales
Ada Township, Kent County, Michigan

Current Date 7/20/2015
Annual Market Conditions Adjustment 2.25%

Number	Street Name	Dir	Style	SF	Location	Amenities	Year Built	Sale Date	Sale Price	Price/SF	Years to Current	Total Adjustment Applied	Adjusted to Current Price
5585	Pettis	NE	2 Story	2,178	Backs to Truck Route	None	1994	9/3/2014	$320,000	$147	0.88	1.97%	$150
5585	Pettis	NE	2 Story	2,178	Backs to Truck Route	None	1994	6/16/2008	$268,900	$123	7.10	15.97%	$143
5585	Pettis	NE	2 Story	2,176	Backs to Truck Route	None	1994	6/30/2006	$267,500	$123	9.06	20.39%	$148
2220	Grand Valley	NE	2 Story	2,335	Backs to Truck Route	DayLite	1994	4/26/2006	$260,000	$111	9.24	20.79%	$134
2302	Grand Valley	NE	2 Story	2,660	Backs to Truck Route	DayLite, 3 Car Gar	2002	10/5/2003	$360,000	$135	11.80	26.54%	$171
												Count	**5**
												Average	**$149**
												Median	**$148**
2277	Grand Valley	NE	2 Story	2,414	Interior	3 Car Gar	1996	12/27/2013	$375,000	$155	1.56	3.51%	$161
2261	Grand Valley	NE	2 Story	2,700	Interior	DayLite, 3 Car Gar	1998	4/4/2008	$341,000	$126	7.30	16.42%	$147
2277	Grand Valley	NE	2 Story	2,694	Interior	3 Car Gar	1996	8/22/2007	$329,000	$122	7.92	17.81%	$144
2197	Knollpoint	NE	2 Story	2,532	Interior	W/O, 3 Car Gar	1993	8/10/2007	$360,000	$142	7.95	17.88%	$168
2228	Knollpoint	NE	2 Story	2,458	Interior	DayLite	1995	7/10/2003	$339,500	$138	12.04	27.08%	$176
1995	Wellpoint Ct	NE	2 Story	2,724	Interior	W/O, 3 Car Gar	1998	5/23/2003	$390,000	$143	12.17	27.38%	$182
1995	Wellpoint Ct	NE	2 Story	2,724	Interior	W/O, 3 Car Gar	1998	5/31/2001	$334,000	$123	14.15	31.83%	$162
												Count	**7**
												Average	**$163**
												Median	**$162**

Control Group 3 Trended Summary
Grand Valley Estates
Ada Township, Kent County, Michigan

	Style	Location	# of Sample Properties	Average $/SF	Median $/SF
		Sales - Trended to Current			
1	Ranch	Backing to Truck Route	2	$150	$150
2	Ranch	Interior	6	180	180
3	1.5 Story	Backing to Truck Route	4	191	192
4	1.5 Story	Interior	11	156	152
5	2 Story	Backing to Truck Route	5	149	148
6	2 Story	Interior	7	163	162

Source: SWMRIC Flexmls Web / Grand Rapids Association of Realtors.

As can be seen, the improved 1.5 story sales backing to truck haul routes have obtained a higher price per square foot, on average and median, than the interior lots. Improved ranch and two story homes have received a price per square foot lower than the interior lots which can be explained in part by the differences in amenities in the improvements such as standard, daylite, or walk-out basement foundations and 2 car or 3 car attached garges.

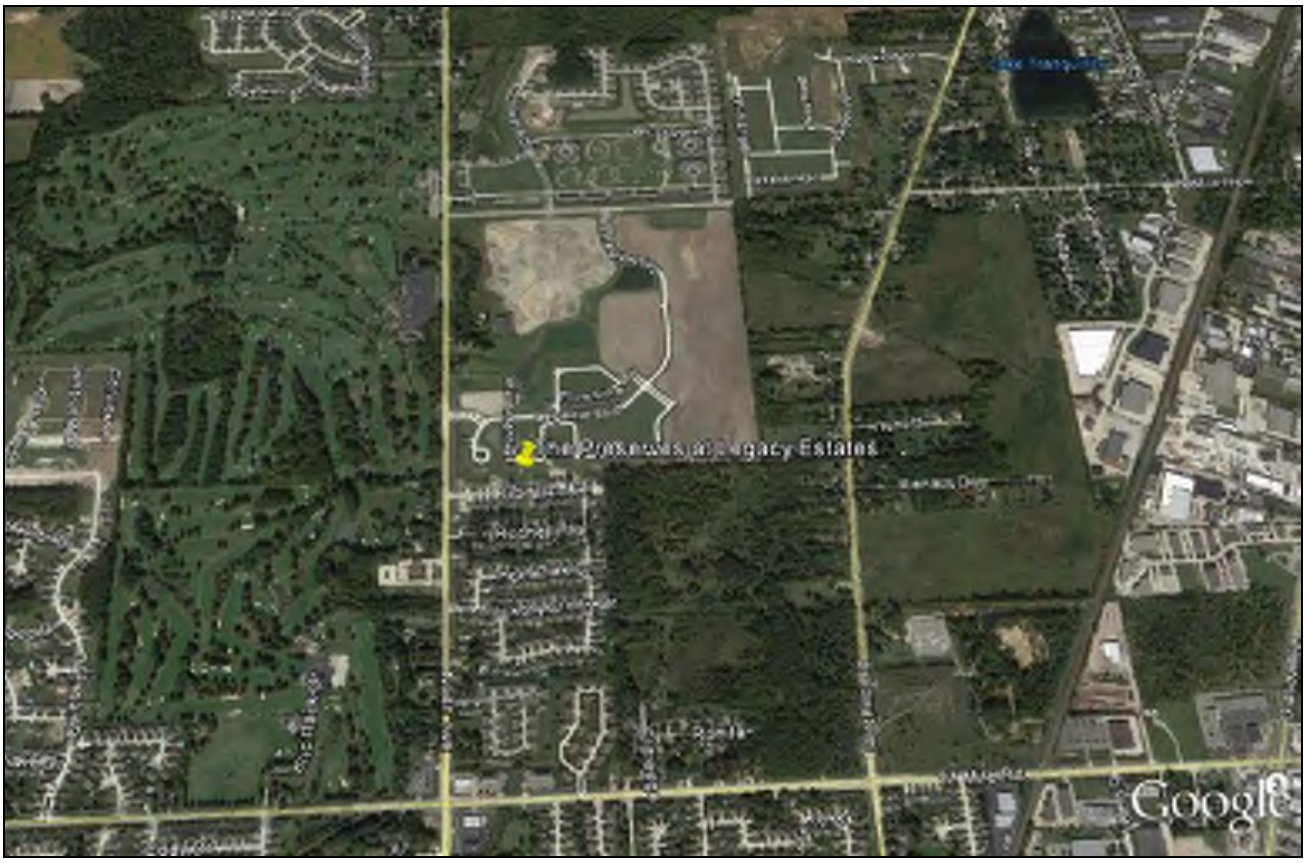
C. SALE PRICE ANALYSIS

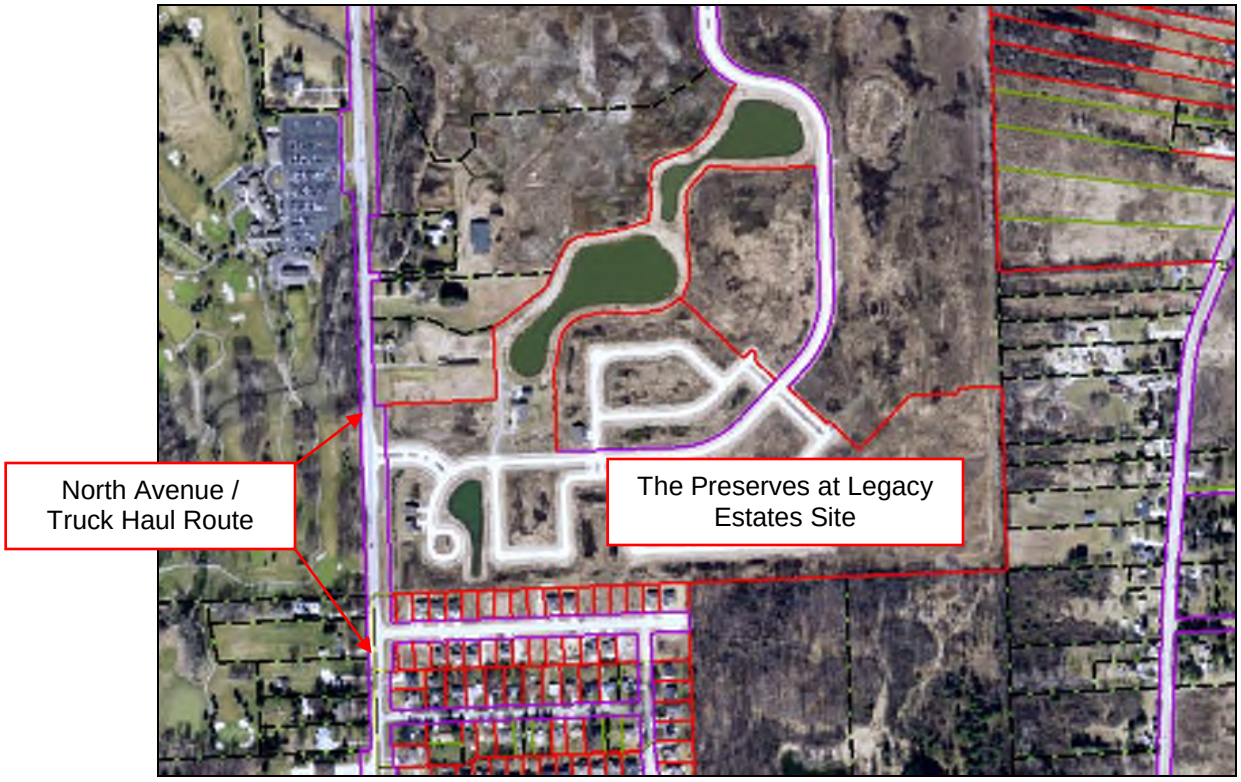
Control Group 4 - The Preserves at Legacy Estates, Macomb Township, Macomb County, Michigan

Control Group 4 is a residential development located east of North Avenue north of 21 Mile Road. According to the Road Commission of Macomb County Truck Operators Map, North Avenue, where the development is located, is a tandem route truck route. North Avenue serves as a connector route from M-59 (Hall Road) for the communities to the north.

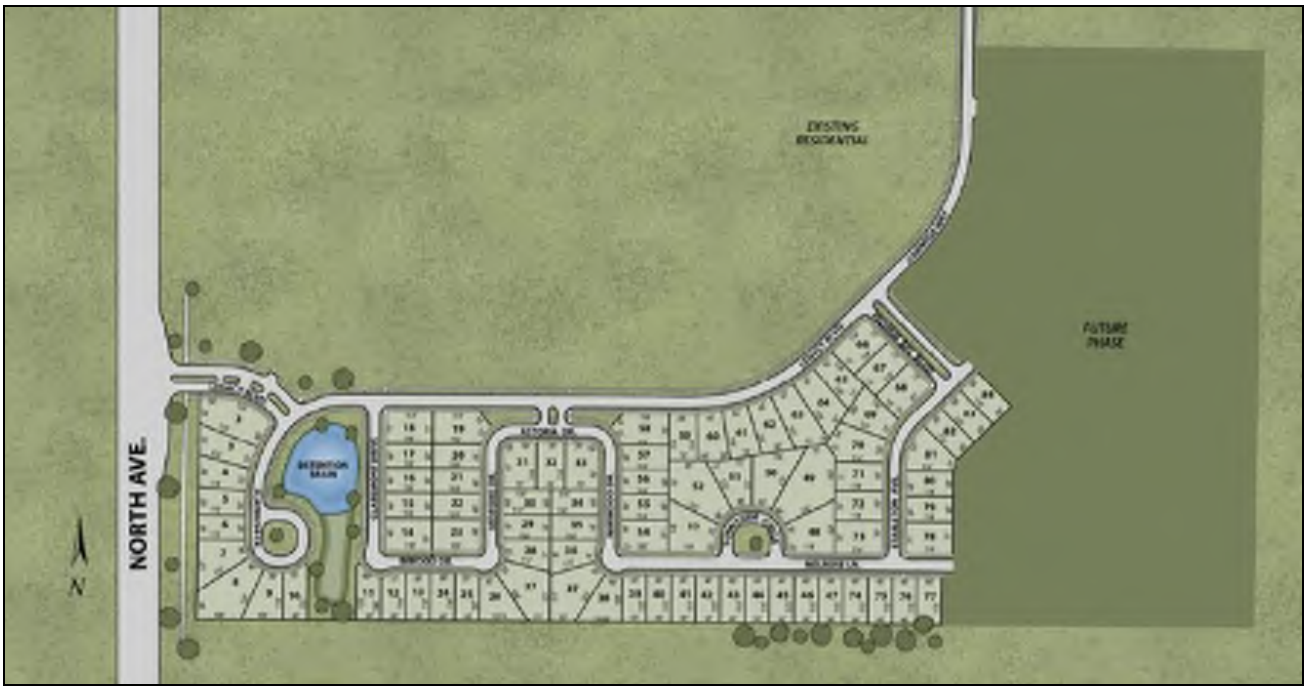
Following are maps showing the overall location of the control group, an aerial Google image of the community showing the location of the control group, a GIS image of the control group from the County, a marketing site map, and the appropriate sections of the County truck operator's map.

C. SALE PRICE ANALYSIS

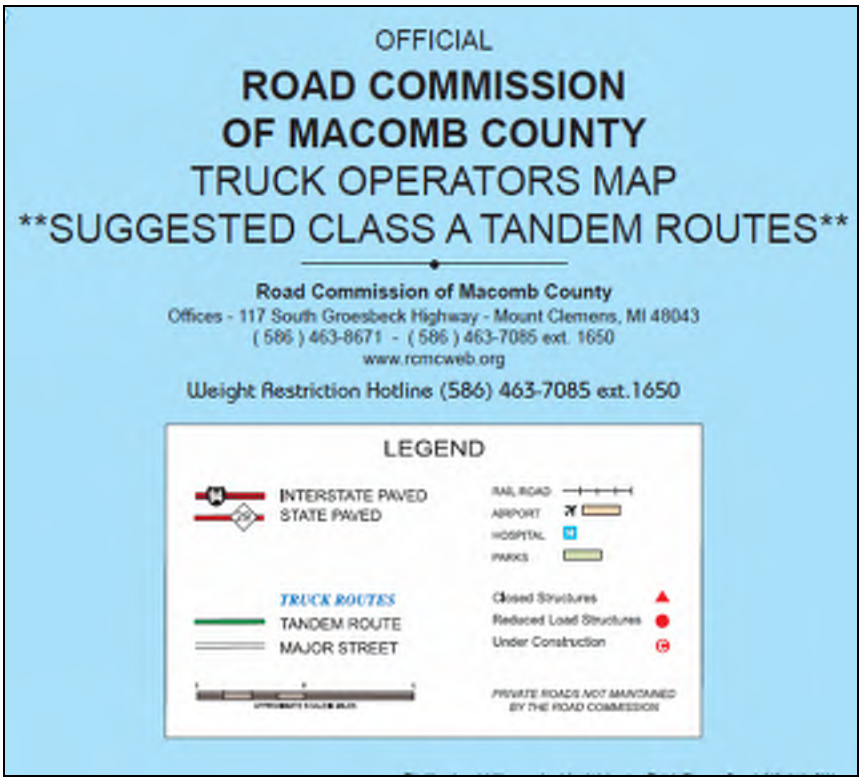


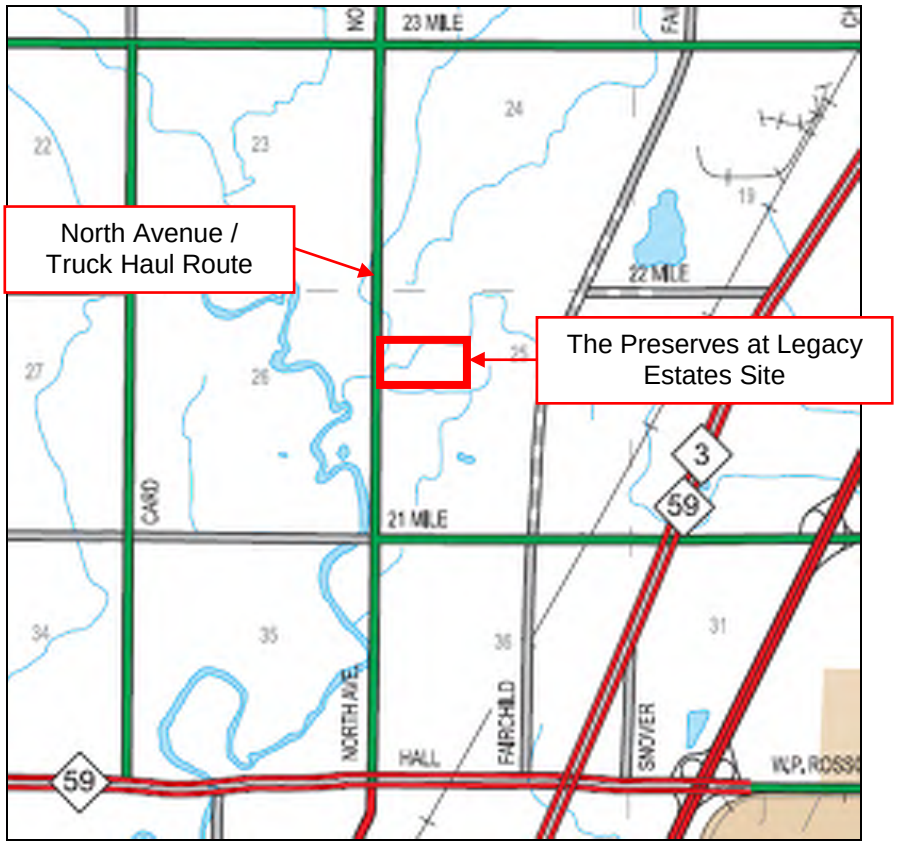


C. SALE PRICE ANALYSIS



C. SALE PRICE ANALYSIS





C. SALE PRICE ANALYSIS

Construction of the residential development began in 2007. Construction stalled with recent sales activity gaining momentum in 2014 and 2015. The development consists of 83 lots, seven of which back to North Avenue. The sales of improved lots from developer/builder to end-user are studied in this analysis.

The following tables outline the sale pricing data used in the analysis and a summary table showing the average and median sales price per square foot for the improved sales.

The Preserves at Legacy Estates - Improved Sales Years 2014 & January 2015
Macomb Township, Macomb County, Michigan

Address	Lot #	Location	Sale Date	Sale Price	Year Built	SF	Style	Amenities	$/SF
48061 Flatbush	6	Truck Route	6/25/2014	$257,175	2014	2,054	2 Story	None	$125
48049 Flatbush	7	Truck Route	6/27/2014	$260,360	2014	2,389	2 Story	None	$109
48037 Flatbush	8	Truck Route	12/22/2014	$272,285	2014	2,260	2 Story	3 Car Gar	$120
								Count	**3**
								Average	**$118**
								Median	**$120**
48025 Flatbush	9	Interior	1/30/2015	$257,547	2014	2,389	2 Story	None	$108
48048 Claremont	14	Interior	6/30/2014	$263,140	2014	2,574	2 Story	None	$102
48072 Claremont	15	Interior	6/27/2014	$262,985	2014	2,388	2 Story	None	$110
48096 Claremont	16	Interior	6/24/2014	$240,265	2014	2,432	2 Story	None	$99
48120 Claremont	17	Interior	9/12/2014	$247,375	2014	2,388	2 Story	None	$104
48144 Claremont	18	Interior	10/14/2014	$282,840	2014	2,814	2 Story	None	$101
23166 Inwood	12	Interior	6/25/2014	$272,100	2014	2,814	2 Story	None	$97
23190 Inwood	13	Interior	6/30/2014	$252,590	2014	2,389	2 Story	None	$106
23262 Inwood	26	Interior	1/15/2015	$247,497	2014	2,070	2 Story	None	$120
								Count	**9**
								Average	**$105**
								Median	**$104**

Control Group 4 Summary
The Preserves at Legacy Estates
Macomb Township, Macomb County, Michigan

	Style	Location	# of Sample Properties	Average $/SF	Median $/SF
	Improved Sales - 2014 and January 2015				
1	2 Story	Backing to Truck Route	3	$118	$120
2	2 Story	Interior	9	105	104

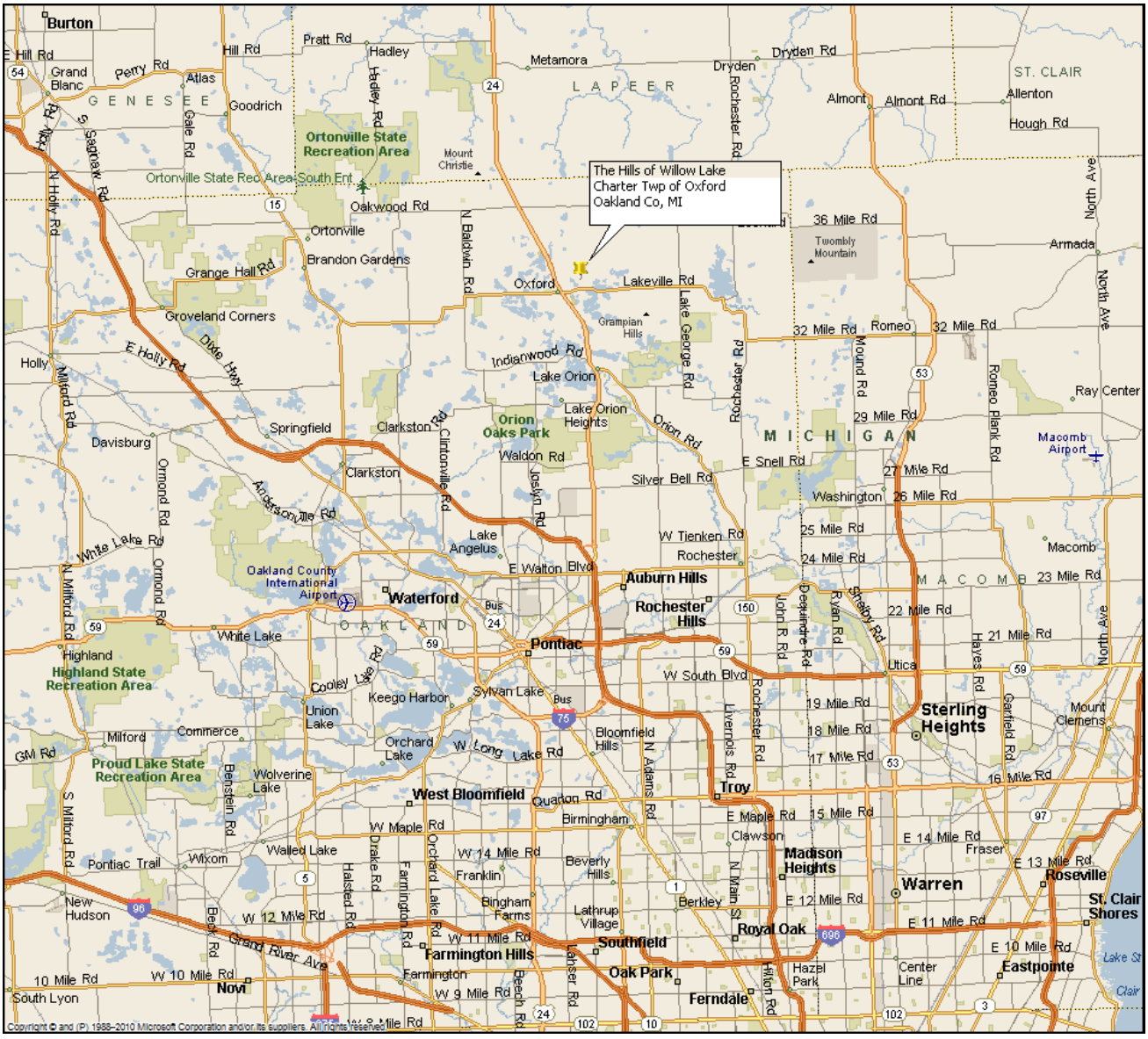
As can be seen, the improved 2 story sales backing to the truck haul route have obtained a higher price per square foot, on average and median, than the interior lots.

C. SALE PRICE ANALYSIS

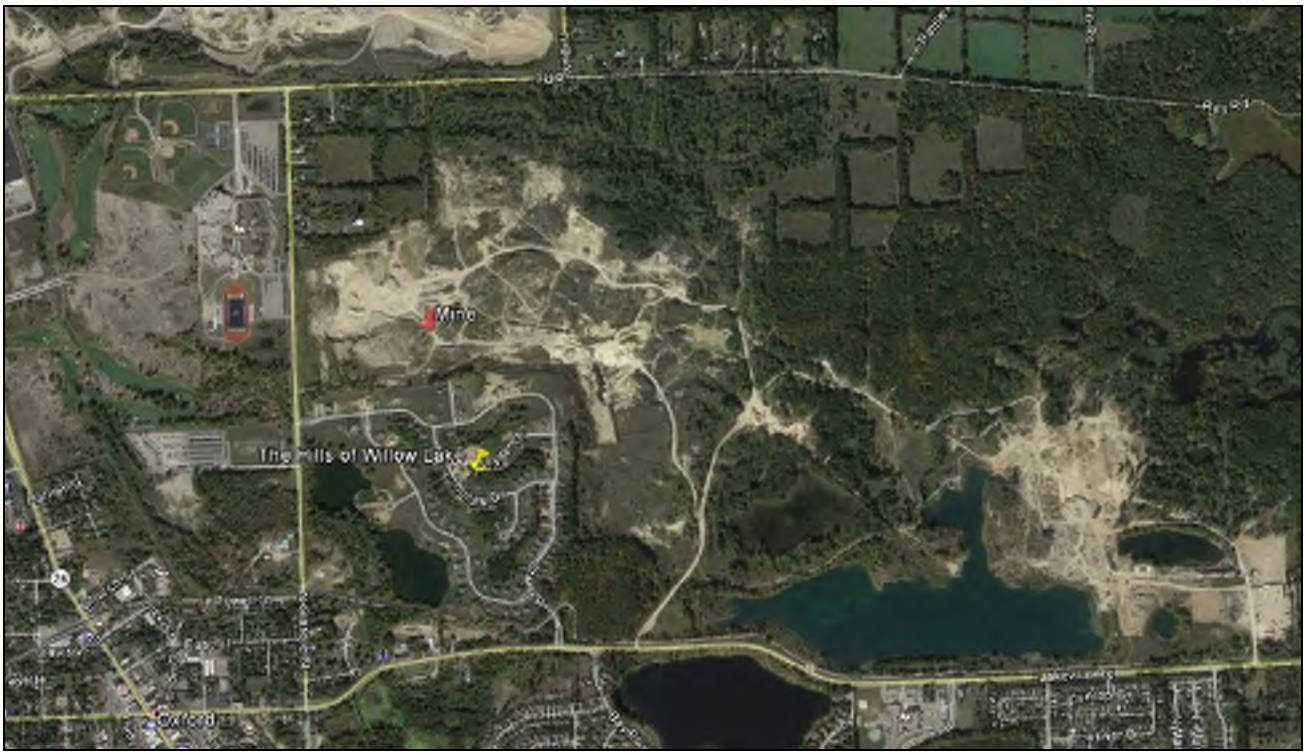
Control Group 5 - The Hills of Willow Lake – Charter Township of Oxford, Oakland County, Michigan

Control Group 5 is a residential development located north of Lakeville Road and east of North Oxford Road. According to the Road Commission for Oakland County Truck Operators' Map, Lakeville Road is a designated / formerly class A spring weight restriction road. Lakeville Road has historically and continues to be and east/west truck haul route connecting the northeastern part of Oakland County and Oxford Area to the northern Macomb County areas. This study group was chosen based on its location contiguous to an active mine on its northern and eastern borders.

On the following pages are maps showing the overall location of the control group, an aerial Google image of the community showing the location of the control group and mining facilities, a GIS image of the control group from the County, a marketing site map, and the appropriate sections of the local truck operator's map.

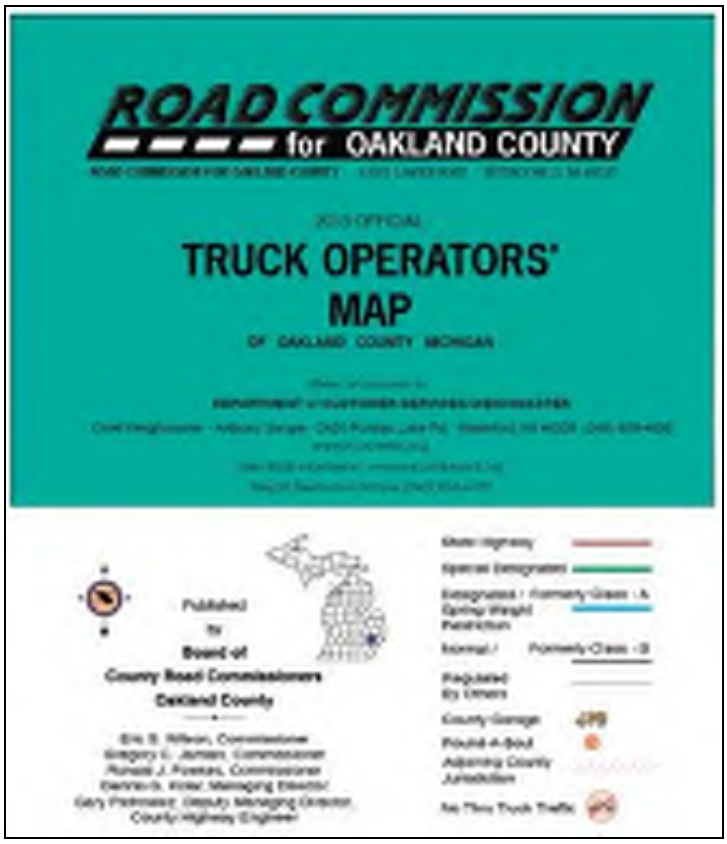


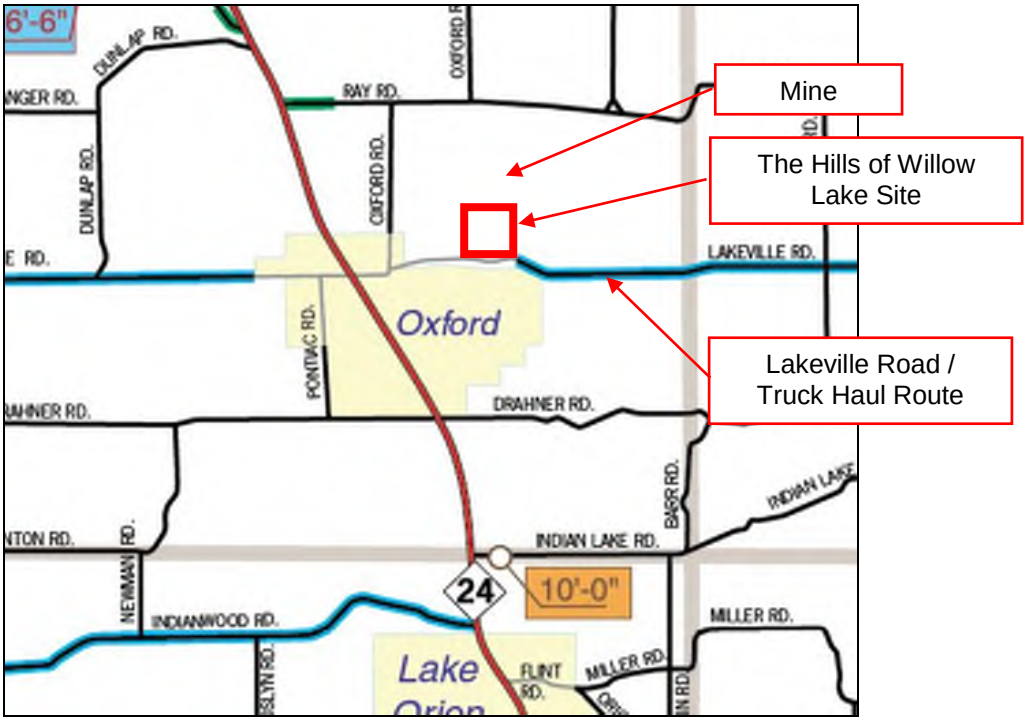
C. SALE PRICE ANALYSIS



C. SALE PRICE ANALYSIS

C. SALE PRICE ANALYSIS





C. SALE PRICE ANALYSIS

Construction of the residential development began in 2003. Construction appears to have stalled around 2007 with recent sales activity gaining momentum in 2014 and 2015. The sales of improved lots from developer/builder to end-user along with the resale of improved lots are studied to analyze market value differences between interior lots as compared to lots backing to the active mine.

The following tables outline the sale pricing data used in the analysis showing the average and median sale prices per square foot for sales and resale of improved properties by year sold.

The Hills of Willow Lake - Improved Sales 2007
Charter Township of Oxford, Oakland County, Michigan

Lot #	Style	SF	Location	Amenities	Year Built	Sale Date	Sale Price	$/SF
96	Ranch	1,800	Mine	None	2006	04/20/07	$285,000	$158
47	Ranch	1,812	Interior	W/O	2007	10/29/07	$230,000	$127
							Count	**2**
							Average	**$143**
							Median	**$143**
41	Ranch	1,816	Interior	Daylite	2005	09/25/07	$265,000	$146
21	Ranch	1,800	Interior	Daylite	2006	05/30/07	$238,000	$132
							Count	**2**
							Average	**$139**
							Median	**$139**

The Hills of Willow Lake - Improved Sales 2009
Charter Township of Oxford, Oakland County, Michigan

Lot #	Style	SF	Location	Amenities	Year Built	Sale Date	Sale Price	$/SF
9	2 Story	2,508	Mine	W/O, 3 Car Gar	2004	07/10/09	$205,000	$82
							Count	**1**
							Average	**$82**
							Median	**$82**
56	2 Story	2,567	Interior	W/O	2005	11/13/09	$206,000	$80
62	2 Story	2,487	Interior	W/O, 3 Car Gar	2006	11/02/09	$209,900	$84
							Count	**2**
							Average	**$82**
							Median	**$82**

The Hills of Willow Lake - Improved Sales 2013
Charter Township of Oxford, Oakland County, Michigan

Lot #	Style	SF	Location	Amenities	Year Built	Sale Date	Sale Price	$/SF
5	2 Story	2,400	Mine/Commons	W/O	2012	03/11/13	$278,990	$116
12	2 Story	2,107	Mine	Daylite	2005	10/15/13	$190,500	$90
							Count	**2**
							Average	**$103**
							Median	**$103**
72	2 Story	2,380	Interior	Daylite	2013	10/12/13	$272,840	$115
132	1.5 Story	2,400	Interior	Daylite, 3 Car Gar	2007	03/28/13	$265,000	$110
							Count	**2**
							Average	**$113**
							Median	**$113**

C. SALE PRICE ANALYSIS

Control Group 5 Summary The Hills of Willow Lake Charter Township of Oxford, Oakland County, Michigan					
	Style	Location	# of Sample Properties	Average $/SF	Median $/SF
		2007 Sales			
1	Ranch	Backing to Mine	2	$143	$143
2	Ranch	Interior	2	139	139
		2009 Sales			
3	2 Story	Backing to Mine	1	82	82
4	2 Story	Interior	2	82	82
		2013 Sales			
5	2 Story	Backing to Mine	2	103	103
6	2/1.5 Story	Interior	2	113	113

Source: Realcomp online MLS and Oakland County Property Gateway.

It is noticeable that there is not an obvious impact of site location backing to the mine as compared to an interior lot. A conversation was held with Jim Esman of Silverado Homes who is the current builder active in the development. Mr. Esman indicated that there was no pricing differences for interior lots vs mine lots and that prices were based on the front foot of the lot and if the lot offered walk-out, daylite, or a three-car garage capabilities. Further, he stated that some customers prefer the mine location with no one building behind them while others prefer the interior location.

Due to the limited number of sales in each of the above groupings, an additional look was taken at comparable home sales over the entire time period to isolate if there is an adverse effect on values reflected in the site location within the development. The following tables outline the sale pricing data used in the analysis and a summary table showing the average and median sale prices per square foot for the active listing, pending sale, sale and resale of improved properties trended to current pricing when needed. The trending allows for additional sales to be utilized providing a larger pool of data.

The Hills of Willow Lake - Improved 2 Story Active Listing and Pending Sales
Charter Township of Oxford, Oakland County, Michigan

Lot #	Style	SF	Location	Amenities	Year Built	Sale Date	Sale Price	$/SF
122	2 Story	2,867	Mine/Commons	None	2015	Listing	$344,400	$120
113	2 Story	2,217	Mine	3 Car Gar	2015	Pending	$289,900	$131
124	2 Story	2,409	Mine	3 Car Gar	2015	Pending	$299,900	$124
126	2 Story	2,731	Mine	None	2015	Listing	$329,900	$121
103	2 Story	2,824	Mine	W/O	2015	Listing	$324,900	$115
							Count	**5**
							Average	**$122**
							Median	**$121**
27	2 Story	2,079	Interior	None	2007	Listing	$249,900	$120
144	2 Story	2,217	Interior	3 Car Gar	2015	Listing	$299,900	$135
137	2 Story	2,746	Interior	W/O, 3 Car Gar	2015	Listing	$339,900	$124
129	2 Story	2,746	Interior	Daylite, 3 Car Gar	2015	Pending	$314,900	$115
							Count	**4**
							Average	**$123**
							Median	**$122**

C. SALE PRICE ANALYSIS

The Hills of Willow Lake - Improved Ranch Sales
Charter Township of Oxford, Oakland County, Michigan

										Current Date	7/20/2015
										Annual Market Conditions Adjustment	-1.00%
Lot #	**Style**	**SF**	**Location**	**Amenities**	**Year Built**	**Sale Date**	**Sale Price**	**$/SF**	**Years to Current**	**Total Adjustment Applied**	**Adjusted to Current Price**
123	Ranch	1,712	Mine/Commons	3 Car Gar	2015	05/29/15	$265,800	$155	0.14	-0.14%	$155
2	Ranch	1,938	Mine/Commons	W/O, 3 Car Gar	2003	06/17/13	$260,000	$134	2.09	-2.09%	$131
2	Ranch	1,938	Mine/Commons	W/O, 3 Car Gar	2003	04/21/11	$219,000	$113	4.25	-4.25%	$108
2	Ranch	1,938	Mine/Commons	W/O, 3 Car Gar	2003	03/07/05	$287,000	$148	10.38	-10.38%	$133
117	Ranch	1,850	Mine (2 sides)	None	2007	05/17/13	$220,000	$119	2.18	-2.18%	$116
96	Ranch	1,800	Mine	None	2006	04/20/07	$285,000	$158	8.25	-8.25%	$145
110	Ranch	1,950	Mine	None	2013	05/23/14	$280,000	$144	1.16	-1.16%	$142
										Count	**7**
										Average	**$133**
										Median	**$133**
31	Ranch	1,650	Interior	None	2007	04/28/09	$177,240	$107	6.23	-6.23%	$101
57	Ranch	1,650	Interior	W/O	2012	12/11/12	$253,380	$154	2.61	-2.61%	$150
89	Ranch	1,725	Interior	Daylite	2007	10/13/09	$160,000	$93	5.77	-5.77%	$87
76	Ranch	1,725	Interior	W/O	2007	12/03/09	$165,000	$96	5.63	-5.63%	$90
91	Ranch	1,725	Interior	3 Car Gar	2013	05/29/13	$234,420	$136	2.14	-2.14%	$133
58	Ranch	1,725	Interior	3 Car Gar	2012	12/12/12	$236,351	$137	2.60	-2.60%	$133
21	Ranch	1,800	Interior	Daylite	2006	05/30/07	$238,000	$132	8.15	-8.15%	$121
16	Ranch	1,804	Interior	W/O	2005	08/19/10	$172,500	$96	4.92	-4.92%	$91
47	Ranch	1,812	Interior	W/O	2007	10/29/07	$230,000	$127	7.73	-7.73%	$117
41	Ranch	1,816	Interior	Daylite	2005	07/14/11	$185,000	$102	4.02	-4.02%	$98
41	Ranch	1,816	Interior	Daylite	2005	09/25/07	$265,000	$146	7.82	-7.82%	$135
41	Ranch	1,816	Interior	Daylite	2005	05/10/05	$288,000	$159	10.20	-10.20%	$142
25	Ranch	1,842	Interior	None	2004	10/22/10	$156,572	$85	4.75	-4.75%	$81
73	Ranch	1,950	Interior	None	2013	12/27/13	$284,490	$146	1.56	-1.56%	$144
35	Ranch	1,954	Interior	W/O	2004	07/13/12	$202,150	$103	3.02	-3.02%	$100
15	Ranch	2,050	Interior	W/O, 3 Car Gar	2013	10/09/13	$273,410	$133	1.78	-1.78%	$131
79	Ranch	2,050	Interior	W/O, 3 Car Gar	2013	07/09/14	$363,076	$177	1.03	-1.03%	$175
										Count	**17**
										Average	**$119**
										Median	**$121**

The Hills of Willow Lake - Improved 1.5 Story Sales
Charter Township of Oxford, Oakland County, Michigan

										Current Date	7/20/2015
										Annual Market Conditions Adjustment	-1.00%
Lot #	**Style**	**SF**	**Location**	**Amenities**	**Year Built**	**Sale Date**	**Sale Price**	**$/SF**	**Years to Current**	**Total Adjustment Applied**	**Adjusted to Current Price**
10	1.5 Story	2,110	Mine	W/O, 3 Car Gar	2004	05/18/04	$286,900	$136	11.18	-11.18%	$121
108	1.5 Story	2,500	Mine	None	2014	07/28/14	$320,000	$128	0.98	-0.98%	$127
										Count	**2**
										Average	**$124**
										Median	**$124**
132	1.5 Story	2,400	Interior	Daylite, 3 Car Gar	2007	03/28/13	$265,000	$110	2.31	-2.31%	$108
										Count	**1**
										Average	**$108**
										Median	**$108**

C. SALE PRICE ANALYSIS

The Hills of Willow Lake - Improved 2 Story Sales
Charter Township of Oxford, Oakland County, Michigan

										Current Date	7/20/2015
										Annual Market Conditions Adjustment	-1.00%
Lot #	**Style**	**SF**	**Location**	**Amenities**	**Year Built**	**Sale Date**	**Sale Price**	**$/SF**	**Years to Current**	**Total Adjustment Applied**	**Adjusted to Current Price**
5	2 Story	2,400	Mine/Commons	W/O	2012	03/11/13	$278,990	$116	2.36	-2.36%	$114
1	2 Story	2,700	Mine/Commons	W/O, 3 Car Gar	2004	11/13/06	$360,000	$133	8.69	-8.69%	$122
12	2 Story	2,107	Mine	Daylite	2005	10/15/13	$190,500	$90	1.76	-1.76%	$89
109	2 Story	2,400	Mine	None	2014	12/19/14	$289,900	$121	0.58	-0.58%	$120
11	2 Story	2,452	Mine	W/O, 3 Car Gar	2004	06/29/04	$318,000	$130	11.06	-11.06%	$115
9	2 Story	2,508	Mine	W/O, 3 Car Gar	2004	04/30/14	$300,000	$120	1.22	-1.22%	$118
9	2 Story	2,508	Mine	W/O, 3 Car Gar	2004	07/10/09	$205,000	$82	6.03	-6.03%	$77
										Count	**7**
										Average	**$108**
										Median	**$115**
27	2 Story	2,079	Interior	None	2007	12/22/11	$178,900	$86	3.58	-3.58%	$83
26	2 Story	2,212	Interior	None	2004	07/30/08	$185,000	$84	6.98	-6.98%	$78
72	2 Story	2,380	Interior	Daylite	2013	06/16/15	$280,000	$118	0.09	-0.09%	$118
72	2 Story	2,380	Interior	Daylite	2013	10/12/13	$272,840	$115	1.77	-1.77%	$113
62	2 Story	2,487	Interior	W/O, 3 Car Gar	2006	11/02/09	$209,900	$84	5.72	-5.72%	$80
38	2 Story	2,493	Interior	None	2004	07/09/03	$294,836	$118	12.04	-12.04%	$104
38	2 Story	2,493	Interior	None	2004	06/22/15	$287,500	$115	0.08	-0.08%	$115
56	2 Story	2,567	Interior	W/O	2005	05/03/05	$323,495	$126	10.22	-10.22%	$113
56	2 Story	2,567	Interior	W/O	2005	11/13/09	$206,000	$80	5.68	-5.68%	$76
133	2 Story	2,824	Interior	W/O, 3 Car Gar	2015	05/04/15	$311,120	$110	0.21	-0.21%	$110
										Count	**10**
										Average	**$99**
										Median	**$107**

Control Group 5 Trended Summary
The Hills of Willow Lake
Charter Township of Oxford, Oakland County, Michigan

	Style	Location	# of Sample Properties	Average $/SF	Median $/SF
		Active Listings and Pending Sales			
1	Ranch	Backing to Mine	2	$152	$152
2	Ranch	Interior	1	140	140
3	2 Story	Backing to Mine	5	122	121
4	2 Story	Interior	4	123	122
		Sales - Trended to Current			
5	Ranch	Backing to Mine	7	133	133
6	Ranch	Interior	17	119	121
7	1.5 Story	Backing to Mine	2	124	124
8	1.5 Story	Interior	1	108	108
9	2 Story	Backing to Mine	7	108	115
10	2 Story	Interior	10	99	107

Source: Realcomp online MLS and Oakland County Property Gateway.

As can be seen, in general the listings, pending, and sales of improved properties backing to the mine have obtained a higher price per square foot, on average and median, than the interior lots.

Exhibit D

Assessment Trend Analysis

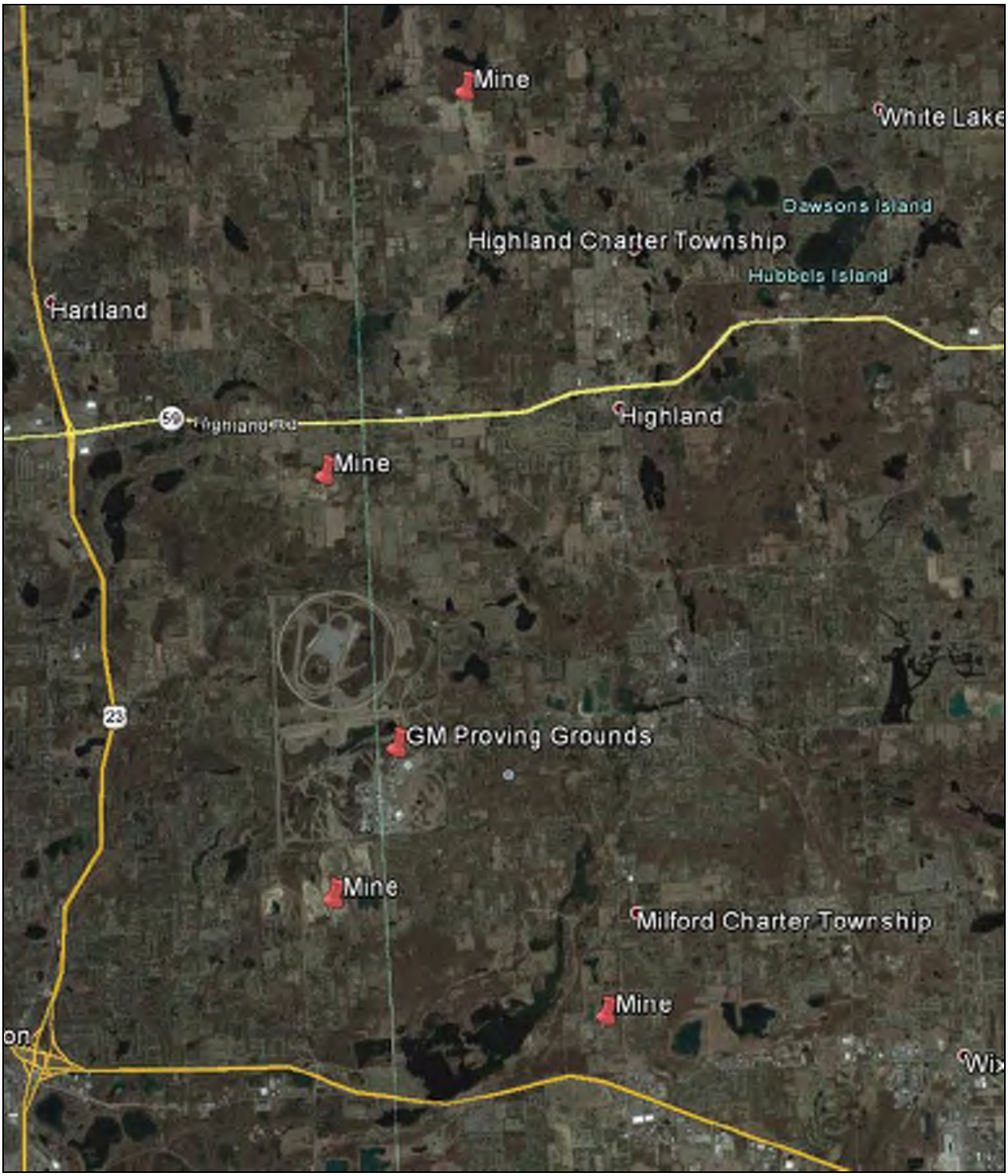
D. ASSESSMENT TREND ANALYSIS

Assessment Trend Analysis – Control Groups

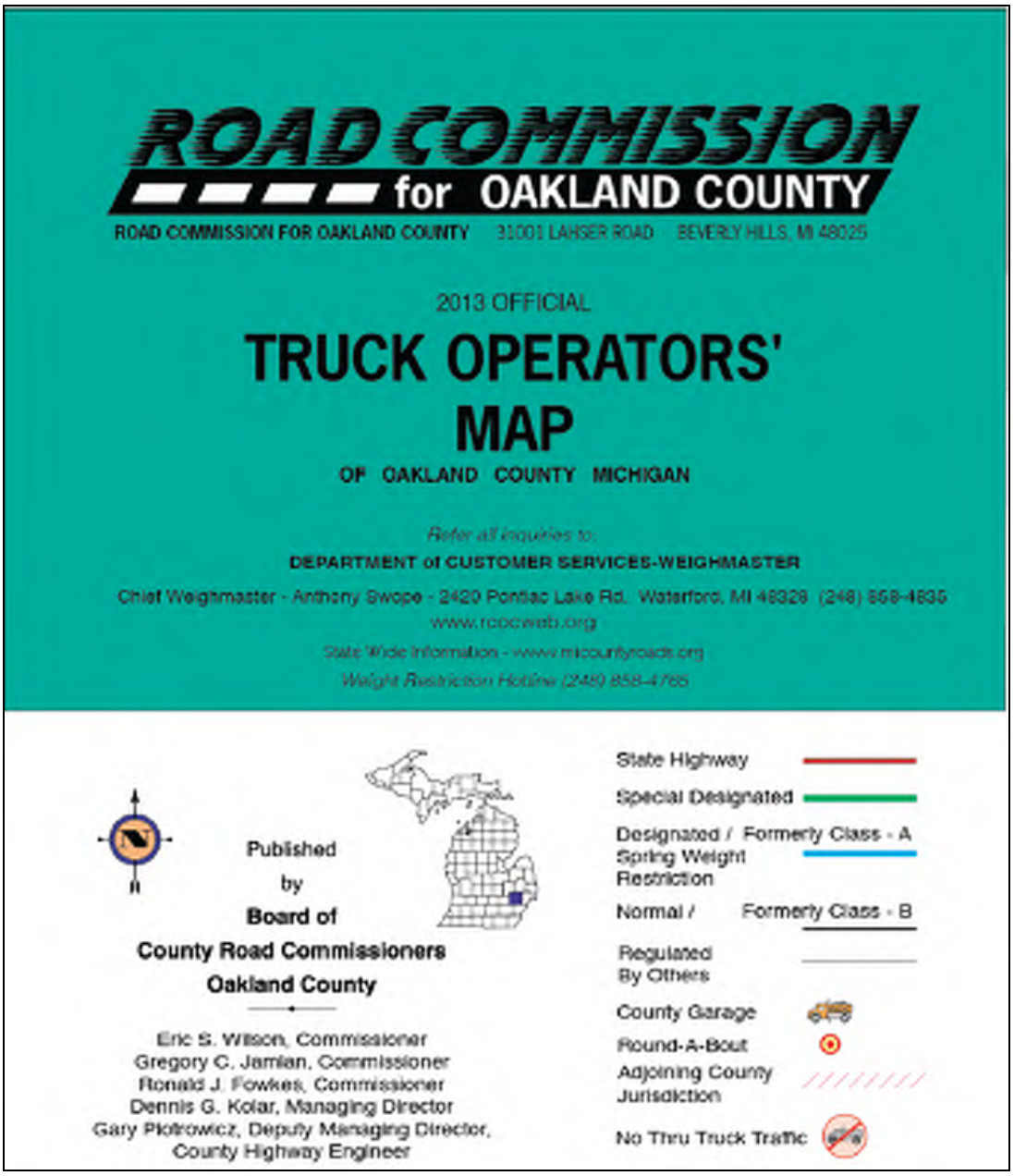
For statistics relating to assessed values analysis we identified two control groups by searching for municipalities on the outer fringe of urban sprawl that had truck haul routes, high traffic roads, and active mines or industrial properties which create truck traffic. We identified two such communities; the Charter Township of Highland and the Charter Township of Milford.

On the following pages are maps showing the overall location of the control group, an aerial Google image of the community showing the location of the control group, mining facilities, a large industrial property, and the appropriate sections of the local truck operator's map showing truck haul routes (bold black lines highlighted in green and blue) and high traffic roads (bold black lines).

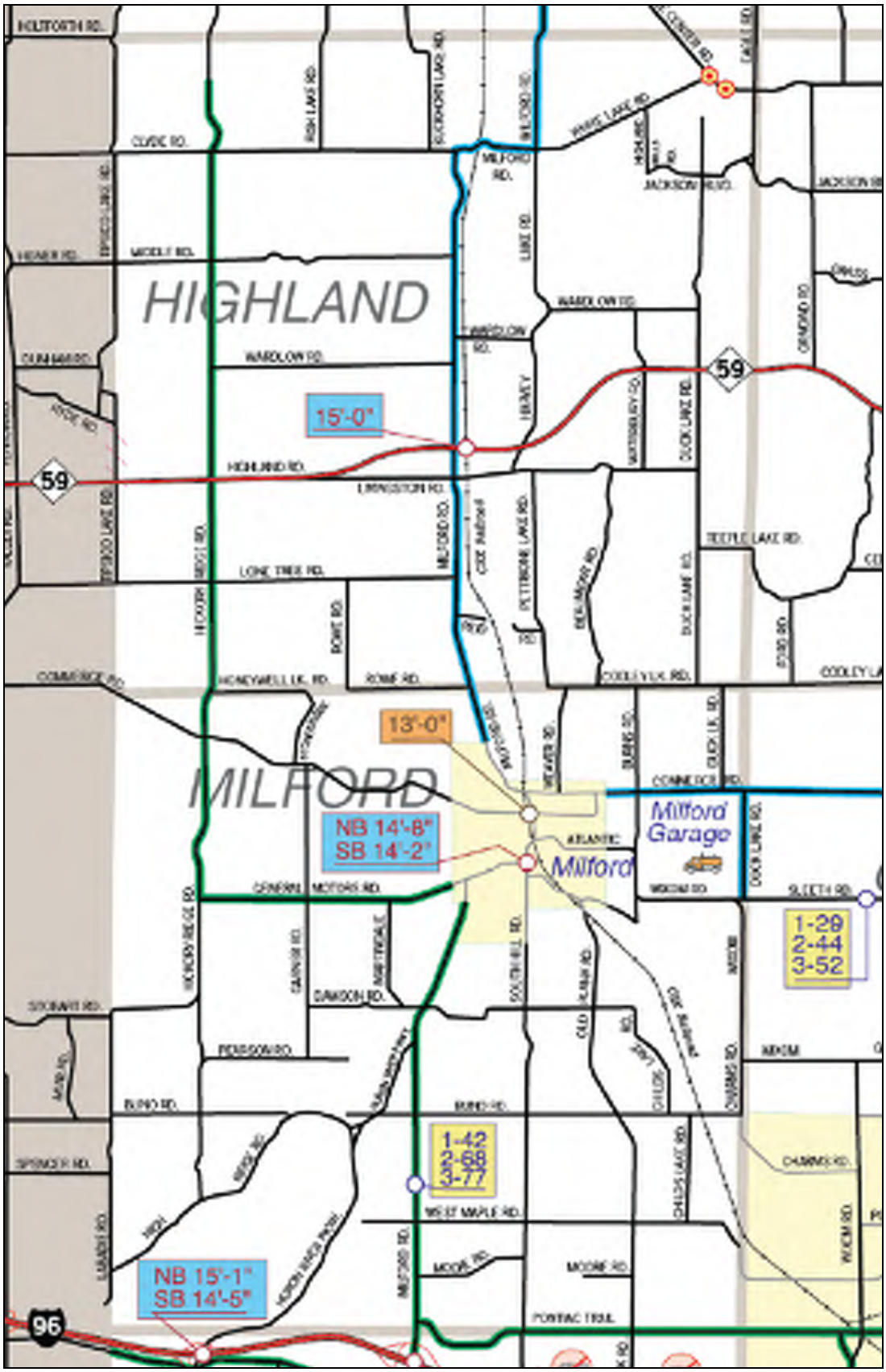
D. ASSESSMENT TREND ANALYSIS



D. ASSESSMENT TREND ANALYSIS



D. ASSESSMENT TREND ANALYSIS



D. ASSESSMENT TREND ANALYSIS

Assessment data was provided for the years 2008 through 2014 by Oakland County Equalization via One Stop Shop Business Center Economic Development & Community Affairs. We analyzed assessment data from these communities for improved residential properties (not including lakefront properties) to determine assessment trends for the overall communities as compared to properties along truck haul routes and high traffic roads.

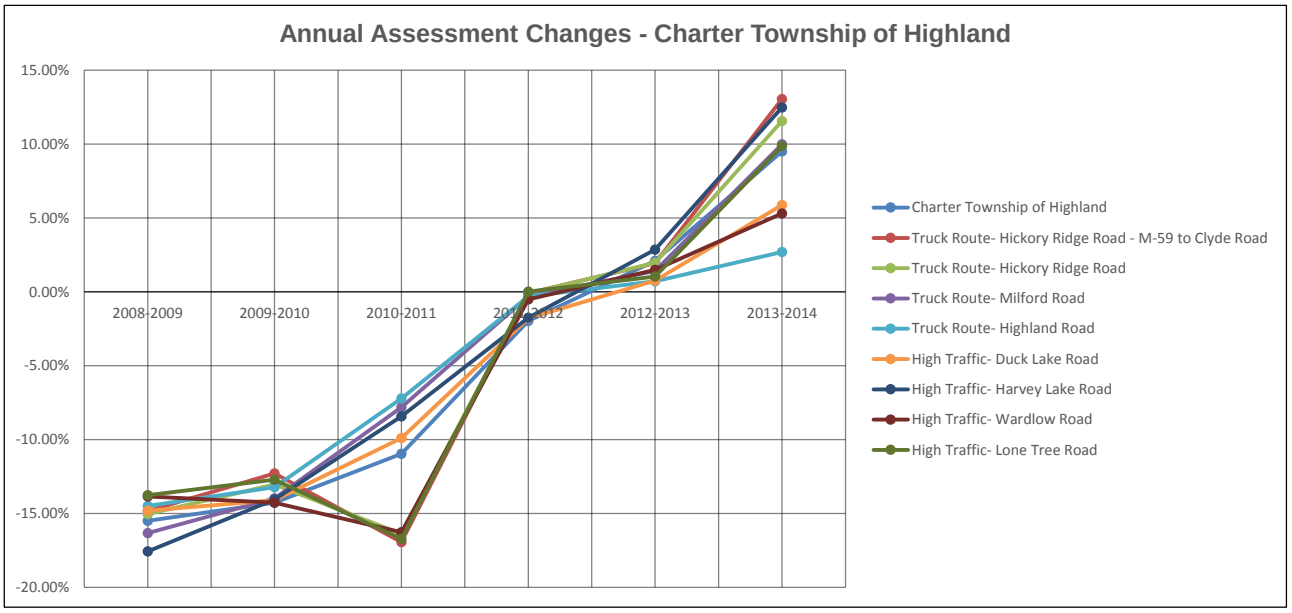
Following is a table outlining median annual assessment change for residential properties located in each municipality as a whole, then comparing them to the residential properties along truck haul routes and residential properties along high traffic roads.

Median Assessment Change

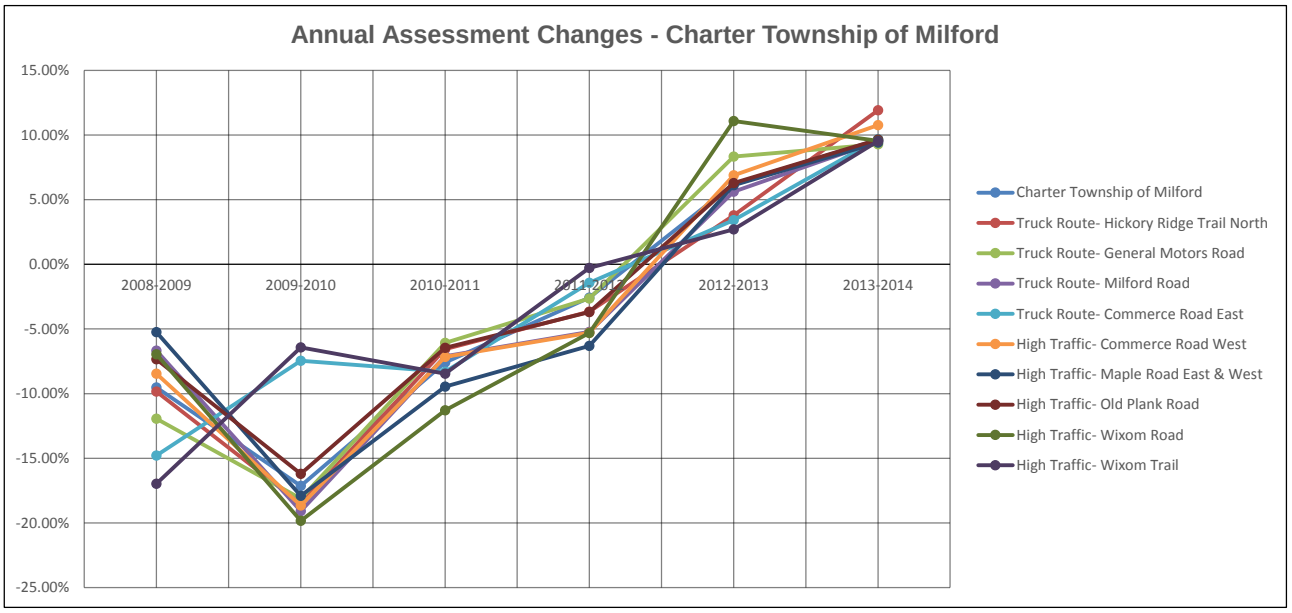
		Median Annual Assessment Change					
		Years					
		'08-'09	'09-'10	'10-'11	'11-'12	'12-'13	'13-'14
	Municipalities/Location						
1	Charter Township of Highland	-15.50%	-14.27%	-10.96%	-1.97%	2.09%	9.50%
2	Charter Township of Milford	-9.52%	-17.14%	-7.60%	-2.58%	6.22%	9.64%
	Truck Routes - Charter Township of Highland						
3	Hickory Ridge Road - M-59 to Clyde Road	-14.84%	-12.29%	-16.94%	-0.09%	1.93%	13.04%
4	Hickory Ridge Road	-15.05%	-13.04%	-16.39%	-0.12%	1.96%	11.56%
5	Milford Road	-16.32%	-13.97%	-7.82%	-0.31%	1.41%	9.98%
6	Highland Road	-14.48%	-13.23%	-7.21%	-0.30%	0.72%	2.69%
	High Traffic Roads - Charter Township of Highland						
7	Duck Lake Road	-14.81%	-14.09%	-9.90%	-1.80%	0.76%	5.88%
8	Harvey Lake Road	-17.56%	-14.05%	-8.43%	-1.75%	2.85%	12.48%
9	Wardlow Road	-13.84%	-14.27%	-16.27%	-0.51%	1.49%	5.30%
10	Lone Tree Road	-13.76%	-12.72%	-16.72%	0.01%	1.04%	9.87%
	Truck Routes - Charter Township of Milford						
11	Hickory Ridge Trail North	-9.84%	-18.52%	-6.55%	-3.66%	3.79%	11.91%
12	General Motors Road	-11.94%	-18.12%	-6.08%	-2.65%	8.34%	9.28%
13	Milford Road	-6.68%	-19.08%	-7.11%	-5.23%	5.62%	9.52%
14	Commerce Road East	-14.78%	-7.46%	-8.31%	-1.43%	3.42%	9.68%
	High Traffic Roads - Charter Township of Milford						
14	Commerce Road West	-8.46%	-18.65%	-7.16%	-5.29%	6.88%	10.77%
15	Maple Road East & West	-5.25%	-17.91%	-9.45%	-6.30%	6.11%	9.42%
16	Old Plank Road	-7.33%	-16.20%	-6.46%	-3.70%	6.29%	9.66%
17	Wixom Road	-6.96%	-19.84%	-11.29%	-5.31%	11.08%	9.55%
18	Wixom Trail	-16.97%	-6.43%	-8.45%	-0.28%	2.70%	9.53%

As can be seen there has been a fluctuation over the time period across all categories. Presented on the following pages are graphs that help illustrate the trending over the time periods.

D. ASSESSMENT TREND ANALYSIS



As can be seen, in the Charter Township of Highland, all residential properties show a generally similar trend over time. The Charter Township of Highland and the Truck Route – Hickory Ridge Road from M-59 to Clyde Road perform similar to each other with the exception of the 2010-2011 period which is righted in the following years. The residential properties along truck haul routes, busy traffic roads, and interior locations all follow similar trends.



As can be seen, in the Charter Township of Milford, all residential properties show a generally similar trend over time. The residential properties along truck haul routes, busy traffic roads, and interior locations all follow similar trends.

Conversations were had with Mr. Adam Million, Oakland County Equalization Assessor for the Charter Township of Milford and current representative Assessor for the Charter Township of Highland, and Mr. Matt Dingman, City of Farmington Hills Assessor, regarding assessing residential properties along truck haul routes compared to high traffic streets and to interior streets. Mr. Million indicated that residential properties

located along busy traffic roads do see a reduction is value. He opined that the reduction is a result in the amount of traffic, not necessarily the type of traffic. He stated that Hickory Ridge Trail, a truck haul route, and Commerce Road, a high traffic road, receive similar amounts of reductions. Further he indicated that large acreage properties along busy traffic roads or truck haul routes, where the residence is set back from the road with long driveways, do not receive a reduction as they are not really affected by their locations along high traffic roads. Similarly, Mr. Dingman indicated that assessments are based on the amount of traffic, not necessarily the type of traffic. Mr. Dingman further indicated that properties which values were previously affected by noise are showing less and less sensitivity to the noise. He gave the example that in some subdivisions that back to I-696 are seeing very little difference in values between homes backing to I-696 compared to interior lots.

A comparison is made between the six year median assessment changes, between years 2008 to 2014, for the municipalities as compared the truck haul routes and busy traffic roads.

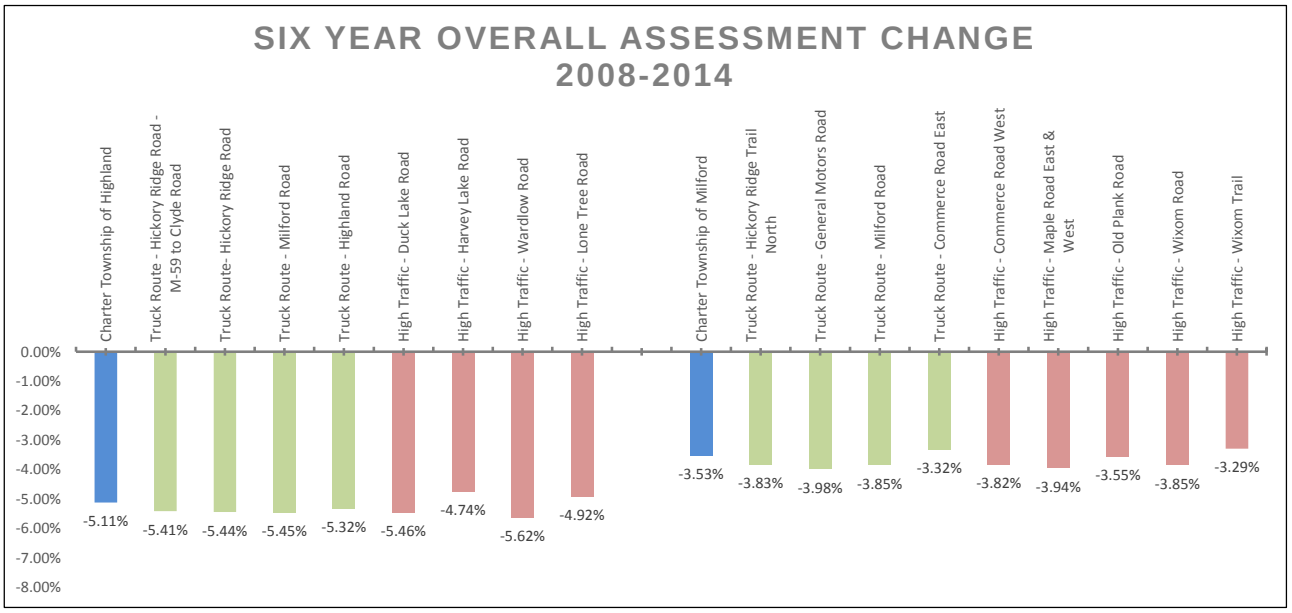
Median Assessment Change

		6 Year Median Change	Difference from Overall Municipality Median Assessments
		'08-'14	
	Municipalities/Location		
1	Charter Township of Highland	-5.11%	
2	Charter Township of Milford	-3.53%	
	Truck Routes - Charter Township of Highland		
3	Hickory Ridge Road - M-59 to Clyde Road	-5.41%	0.30%
4	Hickory Ridge Road	-5.44%	0.33%
5	Milford Road	-5.45%	0.34%
6	Highland Road	-5.32%	0.21%
	High Traffic Roads - Charter Township of Highland		
7	Duck Lake Road	-5.46%	0.35%
8	Harvey Lake Road	-4.74%	0.37%
9	Wardlow Road	-5.62%	0.51%
10	Lone Tree Road	-4.92%	0.19%
	Truck Routes - Charter Township of Milford		
11	Hickory Ridge Trail North	-3.83%	0.30%
12	General Motors Road	-3.98%	0.45%
13	Milford Road	-3.85%	0.32%
14	Commerce Road East	-3.32%	0.21%
	High Traffic Roads - Charter Township of Milford		
14	Commerce Road West	-3.82%	0.29%
15	Maple Road East & West	-3.94%	0.41%
16	Old Plank Road	-3.55%	0.02%
17	Wixom Road	-3.85%	0.32%
18	Wixom Trail	-3.29%	0.24%

As can be seen all groups show an overall negative median assessment change. Interestingly, residential properties along the truck haul routes and high traffic roads show only a fraction of a percent difference between the overall municipalities median assessment change.

D. ASSESSMENT TREND ANALYSIS

The bar graph below illustrates the median annual change of assessed values for the time period of 2008 through 2014.



In the bar graph above the overall municipalities are indicated with the blue bars, the truck haul route are shown with green bars and the high traffic streets are show with red bars. This graph further illustrates that there is little difference in assessment change over the time period between the municipalities, truck haul routes, and high traffic streets.

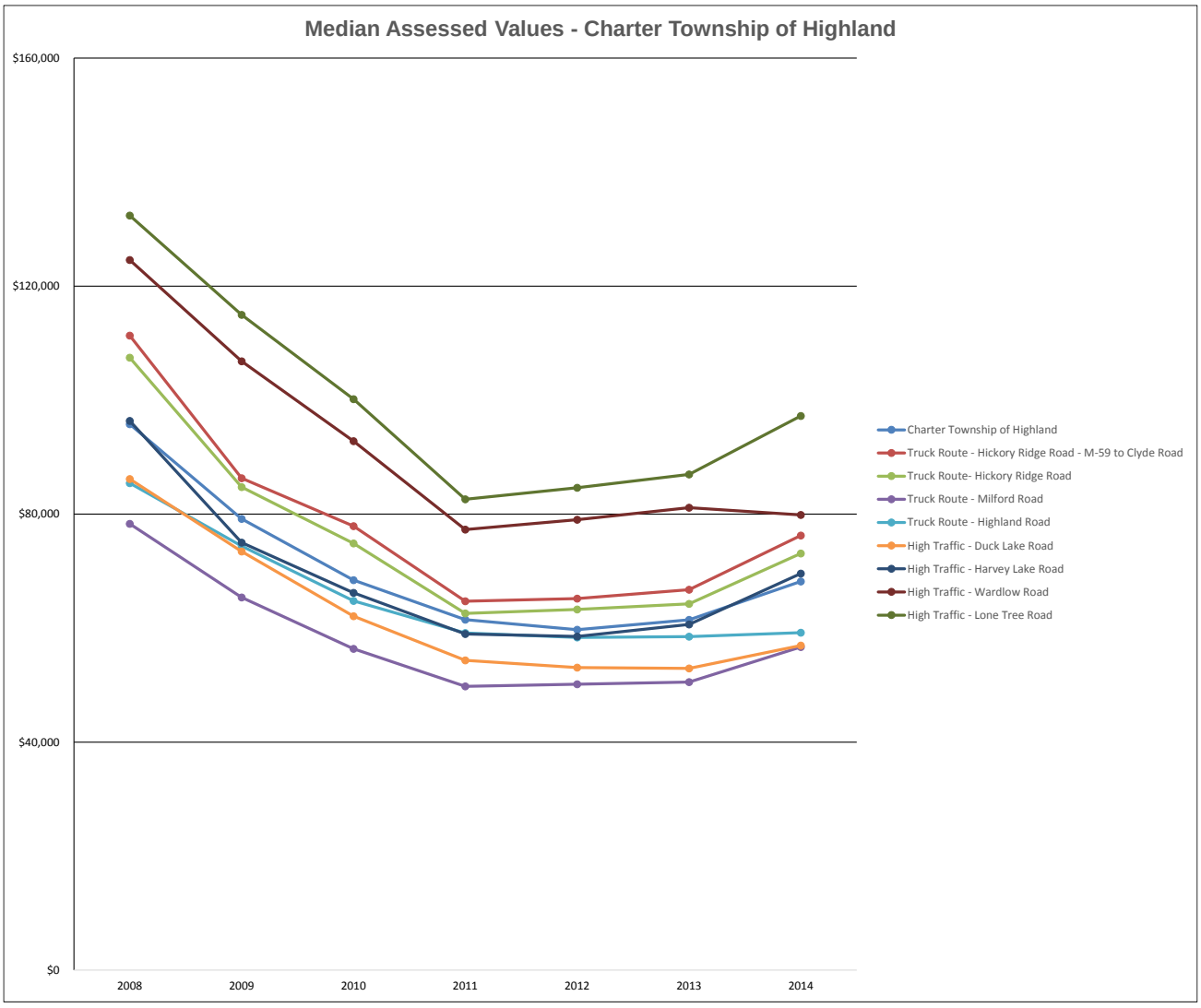
D. ASSESSMENT TREND ANALYSIS

Residential Properties - Median Assessed Values							
	2008	2009	2010	2011	2012	2013	2014
Municipalities/Location							
1 Charter Township of Highland	$95,770	$79,160	$68,405	$61,480	$59,720	$61,450	$68,190
2 Charter Township of Milford	$150,205	$135,200	$112,905	$105,450	$103,780	$110,060	$122,820
Truck Routes - Charter Township of Highland							
3 Hickory Ridge Road - M-59 to Clyde Road	$111,340	$86,315	$77,900	$64,730	$65,180	$66,750	$76,250
4 Hickory Ridge Road	$107,445	$84,730	$74,850	$62,590	$63,280	$64,270	$73,105
5 Milford Road	$78,300	$65,390	$56,370	$49,790	$50,150	$50,530	$56,680
6 Highland Road	$85,450	$74,400	$64,785	$59,150	$58,360	$58,505	$59,195
High Traffic Roads - Charter Township of Highland							
7 Duck Lake Road	$86,150	$73,460	$62,090	$54,350	$53,080	$52,925	$56,960
8 Harvey Lake Road	$96,350	$75,000	$66,180	$58,980	$58,540	$60,660	$69,570
9 Wardlow Road	$124,600	$106,830	$92,795	$77,275	$79,035	$81,125	$79,870
10 Lone Tree Road	$132,400	$114,955	$100,165	$82,620	$84,615	$86,980	$97,240
Truck Routes - Charter Township of Milford							
11 Hickory Ridge Trail North	$124,465	$112,760	$91,775	$85,640	$82,725	$86,580	$97,070
12 General Motors Road	$116,260	$104,620	$82,790	$79,050	$76,070	$80,860	$88,160
13 Milford Road	$112,370	$101,980	$80,580	$76,060	$74,440	$78,595	$86,230
14 Commerce Road East	$117,215	$101,870	$90,070	$84,035	$83,465	$87,470	$95,080
High Traffic Roads - Charter Township of Milford							
14 Commerce Road West	$100,010	$87,310	$71,060	$65,450	$63,520	$68,110	$76,795
15 Maple Road East & West	$142,190	$133,730	$111,970	$101,830	$96,450	$103,605	$114,895
16 Old Plank Road	$130,905	$120,195	$100,780	$97,585	$92,070	$96,490	$107,395
17 Wixom Road	$158,310	$146,430	$116,200	$102,930	$98,060	$111,500	$122,530
18 Wixom Trail	$113,550	$93,820	$88,510	$81,370	$81,170	$84,010	$91,900

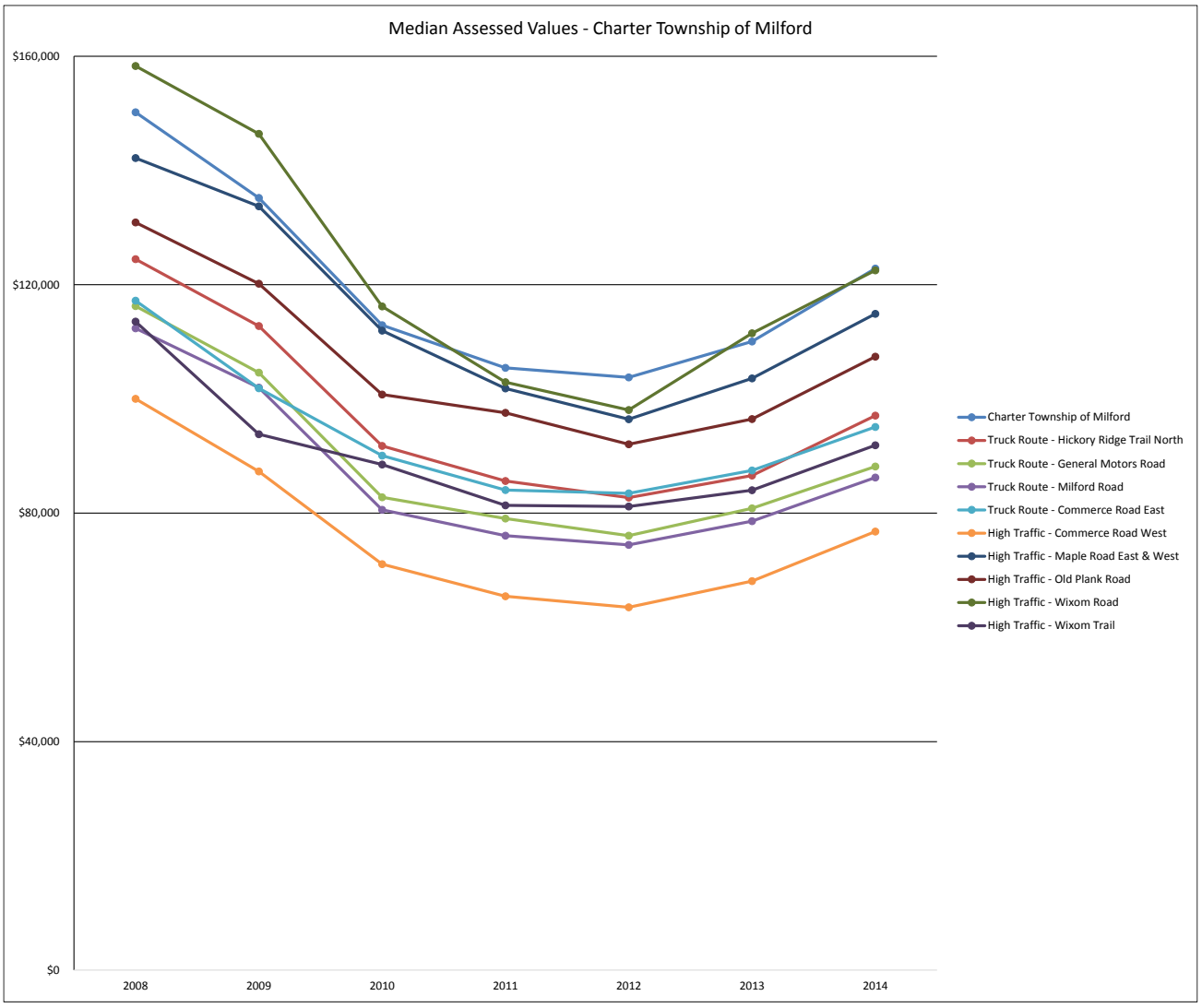
The chart above illustrates the median residential assessed values for the two municipalities and the median residential assessed values for the properties along truck haul routes and high traffic roads. As indicated, the median assessed value was higher, in some cases, for homes along truck haul routes and high traffic streets as compared to their overall municipalities.

Presented on the following pages are graphs by community that helps to illustrate the trending over the time periods.

D. ASSESSMENT TREND ANALYSIS



D. ASSESSMENT TREND ANALYSIS



These graphs further illustrates that there is a consistency in assessment changes and trends over the time period between the municipalities, truck haul routes, and high traffic roads.

Exhibit E

Curriculum Vitae

E. CURRICULUM VITAE

SRR
STOUT | RISIUS | ROSS

Managing Director
Direct +1.248.432.1264
Mobile +1.248.321.8308
kkernen@srr.com

Education

B.A.
Michigan State University
Finance

Professional Designations

MAI – Appraisal Institute

Certified General Real Estate Appraiser
Various states

Kevin A. Kernen, MAI

Kevin A. Kernen is a Managing Director in the real estate practice within the Valuation & Financial Opinions Group. He is responsible for management of the real estate practice, client liaison, business development, and the internal systems and operations for the group. His concentration is in commercial real estate valuation and advisory services, where he has 15 years of national and international appraisal, review, and management experience.

Mr. Kernen's experience encompasses a wide range of commercial real estate engagements for local and national clients for a variety of purposes including financing, estate and gift taxation, proposed developments, litigation, marital dissolution, property tax appeal, purchase price allocation, goodwill impairment, and property insurance placement. Mr. Kernen's experience also includes public speaking engagements and he has been qualified as an expert witness and has testified in state and local jurisdictions.

Mr. Kernen has appraised numerous property types, including office, industrial, retail, hotel, healthcare, vacant land, residential, and many special purpose facilities such as golf courses, country clubs, bowling centers, movie theaters, parking garages, and resorts. Mr. Kernen has also completed market analyses and market rental rate determinations.

In addition to real estate valuation and consulting, Mr. Kernen also has experience in business valuation for a variety of purposes including financing, estate and gift taxation, Subchapter C to Subchapter S conversions, and shareholder disputes.

Mr. Kernen is a designated member of the Appraisal Institute. He is also a member of CoreNet Global and is the President on the executive board of the Michigan Chapter.

E. CURRICULUM VITAE

Kevin A. Kernen
Managing Director
Direct +1.248.432.1264
Mobile +1.248.321.8308
kkernen@srr.com

Kevin A. Kernen, MAI

Testimony Experience:

Yoplait USA-General Mills v. City of Reed City, Michigan Tax Tribunal, 2015

General Mills Operations Inc., Jackson County Board of Revision, Ohio, 2015

Terry J. Mahrle, Trustee of the Terry James Mahrle Trust Dated 8/13/98 and Triple S Properties, L.L.C., v. Enbridge Energy, Limited Partnership, Binder Park Zoological Society, Inc., Focus Wildlife, and Stantec Consulting Services, Inc., State of Michigan, Circuit Court for the County of Calhoun, 2015

Treetops Acquisition Company, LLC, U.S. Bankruptcy Court, Eastern District of Michigan, Northern Division, 2015

JR's Hometown Grill LLC Appeal Hearing, State of Michigan – Michigan Administrative Hearing System, 2015

Predmore Land & Cattle Co. & Haze Company Ltd Partnership v. Township of Metamora, Michigan Tax Tribunal, 2014

Grand Grace Holdings, LLC v. City of Novi, Michigan Tax Tribunal, 2013

Bob Evans Farms, Cuyahoga County Board of Revision, Ohio, 2013

LA Fitness v. Bloomfield Township, Michigan Tax Tribunal, 2013

Bob Evans Farms, Warren County Board of Revision, Ohio, 2013

MillerCoors, LLC v. Adams County Board of Commissioners, Board of Assessment Appeals, State of Colorado, 2013

JCIM US LLC, Williams County Board of Revision, Ohio, 2013

Charter Steel-Cleveland Inc., Cuyahoga County Board of Revision, Ohio, 2012

AIMCO Ramblewood Residential, LLC v. City of Wyoming, Michigan Tax Tribunal, 2012

Citation Investments LLC v. City of Brighton, Michigan Tax Tribunal, 2012

Maestro Investments, LLC and Michael Foster v. Mecca Construction, Inc., Opportunity Investments/Developers, LLC, Khatra Mohamed, and Mikal Abdullah, State of Georgia, DeKalb County Superior Court, 2012

Bob Evans Farms, Franklin County Board of Revision, Ohio, 2011

Suburban Properties – Macomb LLC v. Macomb Township, Michigan Tax Tribunal, 2011

E. CURRICULUM VITAE

Kevin A. Kernen
Managing Director
Direct +1.248.432.1264
Mobile +1.248.321.8308
kkernen@srr.com

Kevin A. Kernen, MAI

Testimony Experience:

Jere R. Hinman v. Roger E. Hinman, State of Michigan, Circuit Court for the County of Kalamazoo, 2011

Publications:

"Conservation Easements: Recent Case Law Highlights Issues for Effective Planning," The SRR Journal, Fall 2013

"Litigation Property Tax Appeal of Large Manufacturing Plants – A Cash Flow Management Tool," The SRR Journal, Spring 2004

Speeches and Seminars:

"Leased Fee - The Impact of Lease Terms on a Real Estate Valuation," roundtable speaker at the Michigan State Bar - Real Property Law Section Summer Conference, July 16-19, 2014

"Appraisals in Real Estate Transactions & Litigation," speaker at ICLE Homeward Bound 2013-2014 Seminar, May 1, 2014

"Reviewing a Commercial Appraisal Report," roundtable speaker at the Michigan State Bar - Real Property Law Section Summer Conference, July 18-21, 2012

"Expert Witnesses and Expert Testimony," panel member for the Bankruptcy Trial Advocacy Workshop presented by the Federal Bar Association Eastern District of Michigan Bankruptcy Section and the Consumer Bankruptcy Association, October 28, 2011

"Property Tax Update," speaker for The Institute for Professionals in Taxation (IPT) Michigan One-Day Tax Seminar, September 9, 2011

"Current Underwriting and the Availability of Credit," panel member for the ICSC 2011 Michigan Continuing Education Program, January 27, 2011

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Vice President
Direct +1.248.432.1306
stoupin@srr.com

Education

B.S.
Lawrence Technological University
Architecture

Professional Designations

Certified General Real Estate Appraiser
Michigan

Shaun B. Toupin

Shaun B. Toupin is a Vice President in the real estate practice within the Valuation & Financial Opinions Group. Her concentration is in real estate valuation and advisory services. She has been an appraiser for 19 years and is licensed as a certified general real estate appraiser in Michigan.

Ms. Toupin's professional experience encompasses a wide range of real estate engagements for local and national clients for a variety of purposes including financing, estate and gift taxation, purchase and sale advice, proposed developments, feasibility study, environmental contamination, insurance placement, eminent domain and right-of way, and marital dissolution. Ms. Toupin has appraised numerous property types including office, apartments, vacant land, residential, condominium, and industrial. Ms. Toupin has performed feasibility studies, and assisted in impact studies, market analyses, and highest and best use studies.

Prior to joining SRR, Ms. Toupin was one of the principal appraisers at Accurate Appraisal Company in Clawson, Michigan.

Ms. Toupin is a Candidate for Designation of the Appraisal Institute. She is also a member of Commercial Real Estate Women, a member of the International Right of Way Association, and holds a seat on the Board of Review for the city of Farmington Hills, Michigan.

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E. CURRICULUM VITAE

Shaun B. Toupin
Vice President
Direct +1.248.432.1336
stoupin@srr.com

Shaun B. Toupin

Publications:

"Conservation Easements: Recent Case Law Highlights Issues for Effective Planning," The SRR Journal, Fall 2013

PHOENIX CENTER POLICY PAPER SERIES

Phoenix Center Policy Paper Number 53:

Quarry Operations and Property Values: Revisiting Old and Investigating New Empirical Evidence

George S. Ford, PhD
R. Alan Seals, PhD

(March 2018)

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Phoenix Center Policy Paper No. 53
Quarry Operations and Property Values: Revisiting Old and Investigating New Empirical Evidence

George S. Ford, PhD†
R. Alan Seals, PhD•

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Abstract: A large literature exists on the impact of disamenities, such as landfills and airports, on home prices. Less frequently analyzed is the effect of rock quarries on property values, and what little evidence is available is dated and conflicting. This question of price effects is a policy relevant one, with one study in particular used frequently to support "not in my backyard" campaigns against new quarry sites. In this POLICY PAPER, we revisit the literature and conduct a new analysis of the price effects of quarries, estimating the effect of quarries on home prices with data from four locations across the United States and a wide range of econometric specifications and robustness checks along with a variety of temporal circumstances from the lead-up to quarry installation to subsequent operational periods. We find no compelling statistical evidence that either the anticipation of, or the ongoing operation of, rock quarries negatively impact home prices. Our study likewise highlights a number of shortcomings in the empirical methodologies generally used to estimate the effect of disamenities on real estate prices. First and foremost, many existing studies are naïve as to the empirical conditions necessary to identify a causal relationship and do not establish credible strategies to estimate the counter-factual outcome. Second, the inclusion of "distance to the site" regressors in hedonic models is shown to be an unreliable statistical method. Using the method of randomized inference, the null hypothesis of "no effect" of placebo quarries is rejected in as much as 93% of simulations.

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† Chief Economist, Phoenix Center for Advanced Legal & Economic Public Policy Studies. The views expressed in this paper are the authors' alone and do not represent the views of the Phoenix Center or its staff.

• Adjunct Fellow, Phoenix Center for Advanced Legal & Economic Public Policy Studies; Associate Professor of Economics and Director of Graduate Studies – Auburn University.

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I. Background

Odds are that underneath your feet is a construction material made of sand, crushed stone, and gravel. These construction materials are an essential ingredient into nearly every construction project, from residential housing, office buildings, retail outlets, entertainment structures, to the roads that connect them.[1] Sand, rock and gravel are literally the foundation of economic development, but their extraction process can generate dust, noise, vibration, and truck traffic. While modern technologies and methods have greatly reduced quarries' impact, the environmental and economic consequences of quarry operations receive considerable attention, often in the form of "not in my backyard" (or "NIMBY") campaigns opposing quarry expansions or new sites. Choosing a quarry site is a delicate task. While a quarry may be best located far from residential density on NIMBY concerns, it also needs to be near the final point of demand due to its high transportation cost. Quarries must balance the need to be both "near" and "far," so they are typically found on the outskirts of cities and towns.

A key NIMBY complaint in the siting and expansion of quarries is the effect of the operations on nearby home values. According to Census data, housing amounts to about 70% of the average American's net wealth, so naturally homeowners are sensitive to any adverse effect, real or imagined, on property values.[2] Despite NIMBY opposition, nearly all the evidence on quarry operations finds no price effect. Frequently mentioned studies include Rabianski and Carn (1987) and Dorrian and Cook (1996), both of which find no relationship between appreciation rates of property values near to and far from quarries.[3] An

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[1] *2014 Minerals Yearbook, Construction Sand and Gravel*, U.S. Geological Survey (2014) at p. 1 (available at: https://minerals.usgs.gov/minerals/pubs/commodity/sand_&_gravel_construction/myb1-2014-sandc.pdf) ("Construction sand and gravel is a traditional basic building material and is one of the earliest materials used by humans for dwellings and later for outdoor areas such as paths, roadways, and other constructs. Despite the relatively low, but increasing, unit value of its basic products, the construction sand and gravel industry is a major contributor to and an indicator of the economic well-being of the Nation").

[2] *Wealth, Asset Ownership, & Debt of Households Detailed Tables: 2013*, U.S. Census Bureau (2017) (available at: https://www.census.gov/data/tables/2013/demo/wealth/wealth-asset-ownership.html).

[3] A.M. Dorrian and C.G. Cook, *Do Rock Quarry Operations Affect Appreciation Rates of Residential Real Estate*, Working Paper (1996); J. Rabianski and N. Carn, *Impact of Rock Quarry*

(Footnote Continued. . . .)

even earlier study conducted for the U.S. Bureau of Mines in 1981 also found no consistent relationship between quarry operations and the prices of nearby homes.[4] There are a number of consulting reports on the question, and none report price attenuation attributable to a quarry.[5]

Opposition to quarries based on home valuations relies universally on a report by Professor Patricia Hite (2006).[6] This brief, 250-word study (hereinafter the "*Hite Report*") analyzes data from a few thousand homes sales (apparently in the mid-to-late 1990s) around a single quarry in Delaware, Ohio. Using an unconventional regression model and data on transactions occurring decades after the quarry opened, the *Hite Report* finds a positive relationship between home prices and distance from the quarry. Based on that evidence, the *Hite Report* concludes that quarries reduce home values. Yet, the *Hite Report*'s methods and data do not support a causal interpretation.

As economic development marches on, new quarries will be required to satisfy the demand for basic building materials. In light of the mostly dated and conflicting evidence on the effect of quarries on housing prices, this POLICY PAPER offers new evidence, and a review of old evidence, on the relationship between housing prices and rock quarries. First, given its frequent use by NIMBY opposition to quarries, we revisit the *Hite Report*, analyzing home sales data

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Operations on Value of Nearby Housing, Prepared for the Davidson Mineral Properties (August 25, 1987).

[4] M. Radnor, D. Hofler, *et al.*, *Social, Economic and Legal Consequences of Blasting in Strip Mines and Quarries*, U.S. Bureau of Mines (May 1981) (available at: http://www.cdc.gov/niosh/nioshtic-2/10006499.html).

[5] *See*, *e.g.*, *Study of Impact of Proposed Quarry on The Real Estate Values of Surrounding Residential Property in Raymond, New Hampshire*, Crafts Appraisal Associates Ltd. (April, 2009) ("The evidence does however suggest that the overall marketplace does not react to an influence such as a quarry with a measurable negative reaction as it relates to sale price."); *Martin Marietta New Design Quarry: Analysis of Effect on Real Estate Values*, Stagg Resources Consultants, Inc. (November 17, 2008); *A Property Valuation Report: Affect [sic] of Sand and Gravel Mines on Property Values*, Banks and Gesso, LLC (October 2002); *Impacts of Rock Quarries on Residential Property Values in Jefferson County, Colorado*, Banks and Gesso, LLC (May 1998); R.J. McKown, *Analysis of Proposed Sand & Gravel Quarry: Granite Falls, WA*, Schueler, McKown & Keenan, Inc. (September 25, 1995).

[6] D. Hite, *Summary of Analysis: Impact of an Operational Gravel Pit on House Values: Delaware County, Ohio*, Working Paper (2006). We assign the date "2006" as is conventional, but that year is merely the recording stamp date on the document when it was filed in some type of proceeding. We do not know whether a more detailed analysis was provided at some point. We have never seen such a document cited and were unable to locate it.

around the same Delaware-Ohio quarry. Despite replicating both the location and methods of the *Hite Report*, our regression analysis finds that prices *fall*—not rise—as distance from the quarry increases. This result conflicts with that appearing in the *Hite Report*, so we look for more evidence by analyzing data on homes sales near a quarry outside of Murfreesboro, Tennessee, over the same time interval. Again, we find prices *fall* as distance from the quarry increases.

We are reluctant, however, to claim this evidence implies quarries raise home prices. Rather, we conclude, based on the method of randomized inference and other tests, that the *Hite Report*'s method is unreliable. Using a simulation of pseudo-treatments, we find that the null hypothesis that home prices rise or fall in distance from a *randomly selected location* is rejected in no less than 67% of cases at the 10% nominal significance level. Estimating price-distance relationships, especially without explicitly considering selection bias, is a highly-unreliable statistical procedure. The nature of real estate markets do not permit the effect of quarries to be identified with such naïve empirical tests.

Second, using data on home sales near a relatively new quarry in Gurley, Alabama, we augment the Hite-style analysis with a difference-in-differences estimator, which quantifies the price-distance relationship both before-and-after operations begin. By exploiting the timing of the quarry buildout and the location of home sales with respect to the quarry, we can credibly identify a causal relationship, at least in theory. Unlike the analysis for Delaware and Murfreesboro, home prices rises in distance from the Gurley quarry site, but do so *before* the quarry becomes operational. After operations begin in 2013, the positive effect of distance is attenuated, again suggesting a positive effect of quarries on housing values.

One critique of our Gurley analysis is that market participants shift price forecasts downward in response to the prospect of a quarry so that the deleterious effects of the quarry could be realized before the quarry opens. Quarry site approvals normally take a decade or so, providing ample time for anticipatory responses to valuation fears. To address this concern, we analyze transactions near a recently approved quarry in Madera County, California. Using a difference-in-differences estimator in conjunction with Coarsened Exact Matching, we test for the anticipatory effect of the proposed quarry on nearby housing prices located along the major roadways serving the site. We find no evidence the quarry reduced housing prices. If anything, relative home prices rose near the quarry site.

While our evidence suggests that quarries do not reduce, but may increase, home prices, our analysis suggests more than anything that the identification of

the effect of quarries on prices is a very difficult problem, facing many conceptual and practical obstacles. We do not resolve all these difficulties. That said, we can conclude the evidence strongly implies the *Hite Report* and its methods are unreliable. Further analysis is, as usual, encouraged.

This paper is outlined as follows. First, we discuss the empirical requirements of quantifying a plausibly causal relationship between property values and quarry operations. Second, we revisit the *Hite Report*, estimating the price-distance relationship for the same quarry in Delaware, Ohio, and replicating the analysis for a quarry near Murfreesboro, Tennessee. Using a simulation method, we demonstrate the futility of estimating the price effects of quarries using the method proposed in the *Hite Report*. Third, we turn to the estimation of causal effects using the difference-in-differences estimator for quarry sites in Gurley, Alabama, and Madera County, California. Across multiple methods, we find, if anything, that home prices near quarries rise, not fall. In all, however, we believe our analysis best supports the hypothesis of "no effect" of quarries, or the announcement of quarries, on home prices. Conclusions are provided in the final section.

II. Empirical Framework

Disamenities such as landfills, airports, windfarms and prisons may plausibly reduce the prices of nearby homes. Such effects have been widely studied.[7] Modern empirical methods for observational data based on the Rubin Causal Model, however, suggest that much of the work may offer biased estimates of such disamenities because much it looks only at prices after the "treatment," making it difficult to address selection bias.[8] To conclude that a disamenity reduces home values, the researcher's interest must be in the *causal effect* of an amenity or disamenity on property values. Using only post-treatment prices is problematic since the locations of amenities and disamenities are not randomly selected, and

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[7] Other disamenities that may affect property values, airports and waste disposal, are frequently opposed by homeowners. *See, e.g.*, J.P. Nelson, *Airport and Property Values: A Survey of Recent Evidence*, 14 JOURNAL OF TRANSPORT ECONOMICS AND POLICY 37-52 (1980) (available at: http://www.bath.ac.uk/e-journals/jtep/pdf/Volume_X1V_No_1_37-52.pdf); J.B. Braden, X. Feng, and D. Won, *Waste Sites and Property Values: A Meta-Analysis*, 50 ENVIRONMENTAL AND RESOURCE ECONOMICS 175-201 (2011).

[8] Excellent resources on the modern methods of causal inference for economic analysis include G.W. Imbens and J.M. Wooldridge, *Recent Developments in the Econometrics of Program Evaluation*, 47 JOURNAL OF ECONOMIC LITERATURE 5-86 (2009); J.D. Angrist and J. Pischke, MOSTLY HARMLESS ECONOMETRICS: AN EMPIRICIST'S COMPANION (2008); and J.D. Angrist and J. Pischke, MASTERING 'METRICS: THE PATH FROM CAUSE TO EFFECT (2015).

disamenities are typically located away from residential density to minimize impact and to placate NIMBY resistance.

The non-random selection of a quarry site greatly complicates the quantification of a quarry on housing prices due to selection bias. Finding that housing prices rise at increased distance from a quarry may merely reflect the economics of site choice (i.e., real estate is cheaper per unit in less densely populated areas on the outskirts of town) rather than any causal effect on property values. Also and consequently, empirical work may be frustrated by the lack of housing density near the site, rendering small sample sizes, which may, in turn, lead to the undue influence of outliers. Many quarries, especially new ones, have almost no housing within a mile or two of the site (the typical distance within which negative effects are claimed), as shown in the maps provided in the Appendices. And, given the lengthy approval process, if a quarry does affect housing prices, then such effects may occur prior to operations by an "announcement effect." In conducting empirical work on quarries and housing prices, the researcher must address, and deal with the theoretical and empirical consequences of, the non-random nature of site location.

A. *Quantifying the Effect of a Quarry on Housing Prices*

Resistance to new quarry sites (or the expansions of old ones) based on property values rests exclusively on the *Hite Report*. In that report, the effect on prices is quantified by comparing the mean, quality-adjusted transactions prices around the quarry outside of Delaware, Ohio, as the home's distance from the quarry increases. This "experiment," however, has little hope of accurately measuring the effect of quarries on home prices.

To better grasp the nature of the problem, let there be two types of residential locations: (1) locations proximate to and potentially affected by quarry operations (labeled *N*, for "near"); and (2) locations distant from and entirely unaffected by quarry operations (labeled *F*, for "far"). Also, let there be two periods: the period prior to ($t = 0$) and after ($t = 1$) the initiation of quarry operations. For now, assume the approval process is instantaneous and that the quality and type of homes in the two locations are very similar (or, that such differences can be accounted for by statistical methods).

Prior to quarry operations homes sell for the average price P_0^N if near the future location of the quarry and P_0^F otherwise. (A numerical example is provided later.) For various reasons, these prices need not be equal. After quarry operations begin, the average, quality-adjusted prices for houses are P_1^N and P_1^F. The

differences in the prices across time (P_1 - P_0) are δ^N and δ^F. Other things constant, the effect of the quarry operations can be measured as,

$$\Delta = \delta^N - \delta^F = \left(P_1^N - P_0^N\right) - \left(P_1^F - P_0^F\right), \quad (1)$$

where Δ is the difference-in-differences ("DiD") estimator.[9] The DiD estimator looks for a difference in outcomes after the treatment that is difference than the differences in outcomes before the treatment (thus, explaining the term difference-in-differences). Under certain conditions, the DiD estimator plausibly measures the causal effect of the quarry.

Many studies of the effect of amenities or disamenities on housing values looks only at the difference between *near* and *far* locations in the *post-treatment* period, or the difference in P_1^N and P_1^F (or δ_1). This post-treatment approach is the one used in the *Hite Report*, where all the data is from sales decades after the quarry operations began. If, however, there is a difference in prices before the quarry operations begin, this post-operations difference is clearly not a measure of the effect of proximity to the quarry. A numerical example may prove helpful.

B. *A Numerical Example*

Before a quarry opens, assume the average, quality-adjusted price for a home near the quarry site is $80,000, but the average price is $100,000 for homes far from the future quarry site. Thus, there is a $20,000 or 20% difference in prices prior to quarry operations, perhaps reflecting the lack of locational rents for homes far from residential density. Plainly, since quarry operations have not begun, this difference cannot be attributed to the quarry. In fact, the quarry site may have been chosen because of the lower property values or lack of residential housing in the area.

As a benchmark case, say that the quarry operations once initiated have *no effect* on property values and the sales prices of homes are unchanged after quarry operations begin ($80,000 and $100,000, respectively). If a researcher were to

[9] *See*, *e.g.*, B.D. Meyer, *Natural and Quasi-Experiments in Economics*, 13 JOURNAL OF BUSINESS & ECONOMIC STATISTICS 151-161 (1995); J.D. Angrist and A.B. Krueger, *Empirical Strategies in Labor Economics*, in HANDBOOK OF LABOR ECONOMICS Vol. 3A (eds., O. Ashenfelter and D. Card) (1999); S. Galiani, P. Gertler, and E. Schargrodsky, *Water for Life: The Impact of the Privatization of Water Services on Child Mortality*, 113 JOURNAL OF POLITICAL ECONOMY 83-123 (2005); D. Card, *The Impact of the Mariel Boatlift on the Miami Labor Market*, 13 INDUSTRIAL AND LABOR RELATIONS REVIEW 245-257 (1990).

simply compare prices based on distance from the quarry after operations begin, then a difference of 20% would be found. Yet, that difference existed prior to the quarry's opening, and thus the quarry did not *cause* that difference, implying any causal claim made about that difference is mistaken. The truth (by assumption) is that the quarry had *no effect*. The DiD estimator (Δ) is, in fact, zero, correctly identifying the causal effect of the quarry [= (80,000 – 80,000) – (100,000 – 100,000)].

Assume instead that the quarry does reduce prices for nearby homes. Let the post-quarry average prices be $70,000 near and $100,000 far from the quarry, other things constant.[10] Prices near the quarry fall by $10,000 and those far from the quarry are unchanged. The DiD estimator accurately quantifies the effect of the quarry, which is a $10,000 reduction in value [= (70,000 – 80,000) – (100,000 – 100,000)]. Looking at data after the quarry operations begin, alternately, which is the *Hite Report*'s approach, would find an effect size of $30,000 [=70,000 – 100,000], or three times the true effect. Selection bias accounts for the $20,000 error in the estimated effect.

Ideally, then, to properly identify the causal effect of a quarry operation, the researcher must observe prices both before and after the quarry may reasonably be expected to affect housing prices (among other considerations such as the similarity in pricing trends prior to the treatment). The analysis of transactions occurring well after the quarry opens offers little hope for quantifying the effect of the quarry, absent unique circumstances. Certainly, the empirical demands are considerable, and the identification of the causal effect must be explicitly set forth and proper empirical methods applied.

C. *Key Assumptions for Estimating Causal Effects*

With regard to the location of homes and quarries, we do not have the luxury of experimental data. Rather, the data is observational and the data generation process occurs over many decades. The observational nature of the data is crucial: quarry site and housing locations are non-random and not independent of economic activity near the site or each other. Thus, research on the price effects of quarry sites must pay careful attention to selection bias, which is caused by the non-random process by which sites are chosen to avoid residential density but still

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[10] For instance, a large condominium complex may have built near the quarry. The researcher must adjust for the difference in average prices resulting from this changing mix of household types).

(Footnote Continued. . . .)

remain close to the point of demand for aggregates (i.e., sand, stone and gravel). Thus, the "treatment" and "outcome" are related through observed and potentially unobserved factors.[11]

As explained by Imbens and Wooldridge (2009), when estimating the causal treatment effect in observational studies the researcher must be alert to two key concepts stemming from selection bias: (1) unconfoundedness (or the conditional independence assumption) and (2) covariate overlap (or common support).[12] Unconfoundedness implies that, conditional on observed covariates *X*, the treatment assignment probabilities are independent of potential outcomes. If we have a sufficiently rich set of observable covariates, then regression analysis including the variables *X* leads to valid estimates of causal effects. Since the *X* must be observed to be included in the regression model, this approach is often referred to as *selection on observables*. It is difficult to know and impossible to test whether the observed and included *X* are sufficient to guarantee unconfoundedness (so the regression error and treatment are uncorrelated), though some guidance is available through pseudo-treatment tests (as applied later).

The conditional independence assumption (or *unconfoundedness*) implies that the observed factors included in the statistical analysis fully account for all the differences in the types of homes sold both near and far from the quarry (or other site of interest).[13] In quantifying the effect of education on income, for instance, it is not enough to simply compare the incomes of persons with and without a college education. Work ethic, for instance, affects both the probability that a person will obtain a college degree and his or her future income. A hard-working person may earn a higher income even without a college education. If work ethic cannot be observed, then a comparison of average incomes across those with and without a college degree does not measure the true value of a degree. The difference is a positively biased estimate of the payoff of education.

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[11] In regression analysis, this problem appears as a correlation between the regression residual and the treatment variable.

[12] *Supra* n. 8.

[13] That is, the regression model includes all the regressors needed to make the conditional *near* and *far* prices equal prior to the treatment.

(Footnote Continued. . . .)

The second factor to consider for the measurement of the causal effect is covariate overlap, which Imbens and Wooldridge (2009) observe is, after unconfoundedness, the "main problem facing the analyst."[14] This condition implies that the support of the conditional distribution of *X* for the control group overlaps completely with the conditional distribution of *X* for the treatment group. That is, the covariate distributions for the treated and untreated groups are sufficiently alike, thereby lending credibility to the extrapolations inherent to regression analysis between groups. If the characteristics of untreated observations (home *far from* the quarry) are very different from the treated observations (homes *near to* the quarry), then the projections from the controls to the treated units will be a poor one.

Say, for instance, that a sample used to assess the effect of an experimental cancer treatment includes only persons over 65 years old in the experimental treatment group (or simply treatment group) and only persons below 45 years old in the non- treatment group (or control group). The purpose of the control group is not simply a counterweight to the treatment group. Rather, the control group measures the outcomes for the treated group if that group did not receive the treatment. To fix ideas, what we actually want to estimate is what would the treatment group have looked like had they not been treated, which is the sole purpose of a control group. It is unreasonable to expect, we believe, that the survival outcomes of 45 year-old persons provides an approximation of survival outcomes of persons 65 years and over that did not receive the experimental treatment. To extrapolate this discussion to the case of housing values, if the control group includes almost all homes in a golf course community with swimming pools and the treatment group—the properties near some dis-amenity—includes mostly one-bedroom condominiums, then the difference in sale prices between the two is a nearly meaningless statistic. Regression models are powerful tools, but they cannot make up of for such large differences in characteristics across treatment and control groups (even if observable and included in the regression model as explanatory variables), which is important given that the control group is being "projected" onto the treatment group.

A number of statistical techniques are used to address confoundedness and covariate imbalance in observational studies. In a housing study, for instance, a researcher may choose the control group by finding a group of homes comparable to the treatment group—that is, similar square footage, amenities, lot sizes—from a population of homes unaffected by the treatment. This approach, which we

[14] Imbens and Wooldridge, *supra* n. 8 at 43.

employ here, ensures that the characteristics of homes in the treatment and control groups are sufficiently similar, adding credibility to the control group as a suitable "stand in" for the treatment group if it had not received the treatment.

The *Hite Report* is silent on both of these key assumptions, and there is good reason to suspect the analysis fails on both counts. All the pricing data is for home sales occurring long after the quarry operation began and the regression model is quite basic, so the experiment is almost certainly plagued with selection bias. As for covariate overlap, from what few descriptive statistics are provided in the *Hite Report* we observe that the range of home prices within 0.5 miles of the quarry has a minimum of $80.1 and a maximum of $178.9 (in thousands). In contrast, the range of prices for homes further from the quarry is $60 to $798.6. This difference in the maximum prices is sizable, suggesting that the homes near the quarry may be very much unlike those far from the quarry, thus risking biased results of the effect of distance.

III. Revisiting the *Hite Report*

In NIMBY campaigns challenging quarry development, the *Hite Report* is the sole empirical analysis supporting the claim that quarries reduce housing prices. Subsequent works by Erickcek (2006), the Center for Spatial Economics (2009), Smith (2014), among others, conduct no new empirical analysis, choosing instead to extrapolate the *Hite Report*'s results to different locations (a questionable practice on its own).[15]

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[15] G.A. Erickcek, *An Assessment of the Economic Impact of the Proposed Stoneco Gravel Mine Operation on Richland Township*, W.E. Upjohn Institute for Employment Research (August 15, 2006) (available at: http://www.stopthequarry.ca/documents/US%20Study%20on%20the%20impact%20of%20pits%20quarries%20on%20home%20prices.pdf); *The Potential Financial Impacts of the Proposed Rockfort Quarry*, Center for Spatial Economics (February 26, 2009) (available at: http://wcwrpc.org/FinancialImpacts_RockfortQuarryCanada.pdf); G. Smith, *Economic Costs and Benefits of the Proposed Austin Quarry in Madera County,* Report (October 23, 2014) (available at: http://www.noaustinquarry.org/wp-content/uploads/2016/08/Austin-Quarry-Economics-Report.pdf). Other works relying on the *Hite Report* (directly or indirectly) include, *e.g.,* M. Conklin, *et al., The Quarry Proposed by St. Marys Cement Inc. for a Location Near Carlisle, Ontario Should Not be Permitted: Proponents' Brief*, 5 STUDIES BY UNDERGRADUATE RESEARCHERS AT GUELPH (2011) (available at: https://journal.lib.uoguelph.ca/index.php/surg/article/view/1338/2345); *Business Suirvey and Economic Assessment of Locating a Quarry and Asphalt and Cement Plants within Aeortech Park*, Group ATN Consulting, Inc. (October 13, 2014) (available at: http://stopthefallriverquarry.com/wp-content/uploads/2015/10/GATN_Aerotech_Park_FINAL_Report_Oct_13_2015-2.pdf); M.A. Sale,

(Footnote Continued. . . .)

This uniform reliance on the *Hite Report* is somewhat surprising. On the face of it, the report is a seven-page document consisting of 1.5 pages of double spaced text (about 250 words) along with a few tables and figures. It is more an "abstract" than it is a "study." Moreover, even a brief review of the *Hite Report* points to a number of serious problems that should give any researcher pause. First, there are almost no details regarding model specification and few details on the data used. Not even descriptive statistics are provided. Second, the choice of model specification is entirely ad hoc, treating nearly identical variables (distance) differently with respect to functional form and using a non-standard and unnecessary estimation procedure. Such inconsistent, unconventional and inconvenient choices are symptomatic of ends-driven analysis. Third, no explanation is provided as to how the chosen model and analysis of transactions occurring decades after the quarry operations began might identify the effect of *that particular* quarry (or any new quarry) on housing prices. Selection bias is clearly a concern, but it is neither mentioned nor addressed. Fourth, no analysis is provided to suggest that the homes near the quarry are sufficiently similar to those distant from the quarry to provide reliable estimates of the effect of distance (i.e., covariate overlap). Comparing prices of the homes in rural areas on the outskirts of town to those near the local university risks confusing the vagaries of real estate development with the impact of the quarry.

Setting aside the question of causality for the moment, whether the relationship estimated in the *Hite Report* can be replicated is an important first step in evaluating the report's credibility and the suitability of the methods used to answer this policy-relevant empirical question. To that end, we collect data on home sales within five-miles of the same quarry in Delaware, Ohio, evaluated in the *Hite Report*.[16] It appears the data from the *Hite Report* was from the 1990's (though it is impossible to be certain given the lack of detail), so we collect data on

Quarry Bad for Area, THE NEWS & ADVANCE (September 28, 2008) (available at: http://www.newsadvance.com/opinion/editorials/letters-to-the-editor-for-sunday-september/article_ca388ca4-14c7-534b-9b17-1b78d1cecc40.html).

[16] Data is obtained from www.agentpro247.com. For all our analysis, we limit the prices to greater than $25,000 and less than $1,000,000, and look only at the "full" sales of single-family homes not in distress. The National Lime & Stone Quarry near Delaware, Ohio, is located near Latitude 40.281005 and Longitude -83.135828.

(Footnote Continued. . . .)

sales over the ten-year period 1998 through 2007.[17] These data appear to immediately follow that used in the *Hite Report* but precedes the housing market crash in 2008 and the broader economic malaise that followed.[18] For further analysis, we also collect data on sales near a quarry outside of Murfreesboro, Tennessee, over the same ten-year period.

A. *A Review of Empirical Methods*

To reproduce the *Hite Report*'s analysis, we obtain transactions prices on 2,114 single-family homes between 1998 through 2007 that are located within five miles of the National Lime & Stone Quarry near Delaware, Ohio. Using latitude and longitude coordinates, distance from each home to the center the quarry (*D*) is calculated. Other explanatory variables used the *Hite Report* include, for each transaction, the sale date (*DATE*), the distance to Delaware City (*DDC*), the house-to-lot size (*H2L*), the number of bathrooms (*BATH*), and the number of total rooms (*TOTR*). We measure the sale date as the year of sale; the *Hite Report* does not indicate how the sale date is measured.[19]

The regression model of the *Hite Report* takes the following general form,

$$p_{it} = \exp(\delta_1 \ln D_i + \beta_0 + \sum_{j=1}^{k} \beta_j X_{j,i}) + \varepsilon_{i,t}, \quad (2)$$

where p_{it} is the transaction price (in thousands) for home i at time t, $\ln D$ is the natural log of distance from the quarry (in miles), and X_j are the k regressors listed above (with coefficients β_j as coefficients).[20] For reasons unexplained in the *Hite Report*, only the distance from the quarry is transformed by the natural log

[17] *See also* D. Hite, *The Impact of the Ajax Mine on Property Values*, ARMCHAIRMAYOR.CA (March 5, 2015) (available at: https://armchairmayor.ca/2015/03/05/letter-the-impact-of-the-ajax-mine-on-property-values) (stating that the analysis was completed in 1996-1998).

[18] Our data source does not offer data in the early-to-mid 1990s, so we cannot replicate the same time period as the *Hite Report*. We are trying to obtain such data for further analysis.

[19] It is preferred to measure *DATE* as a fixed effects, as this specification requires prices to rise monotonically over time.

[20] The variables in the model are listed at *Hite Report*, *supra* n. 6 at p. 3. A similar specification is used in D. Hite, *A Hedonic Model of Environmental Justice*, Working Paper (February 14, 2006) (available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=884233).

transformation; distance from the city center (*DCC*) and the other regressors are not transformed. The specification seems purely ad hoc.

Equation (2) is non-linear in the parameters and must be estimated by Non-Linear Least Squares ("NLS"). This specification is highly irregular in econometric practice. Normally, hedonic models of housing prices are estimated by Ordinary Least Squares ("OLS"). A regression model quite similar to Equation (2) and very common in hedonic analysis is,

$$\ln p_{i,t} = \delta_1 \ln D_i + \beta_0 + \sum_{j=2}^{k} \beta_j X_{j,i} + \upsilon_{i,t}, \quad (3)$$

where the dependent variable is the natural log of price and where the *X*s might be transformed to logs as well.[21] While Equation (3) is typical of hedonic price functions, we are unable to find the estimation of Equation (2) anywhere in the literature. In fact, we were unable to locate a single instance where even the author of the *Hite Report* estimates a hedonic price function using Equation (2), but plenty of instances where Equation (3) is used.[22] As detailed later, a test of functional form can inform us as to whether the natural log transformation of the dependent variable is a better approach and infinitely more common.

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[21] Note that Equation (3) is not simply the log transformation of Equation (2) because of the additive error term in Equation (2).

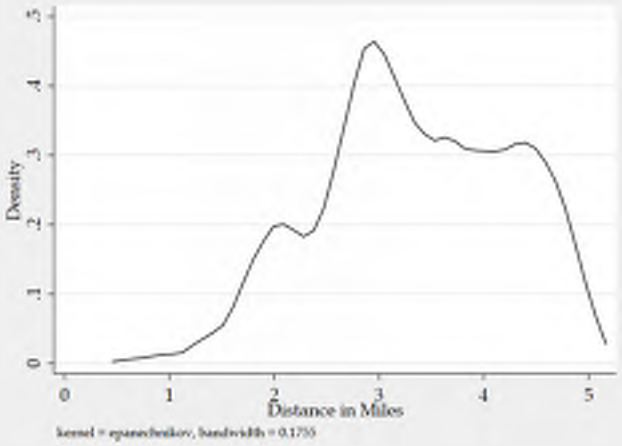
[22] *See, e.g.,* D. Hite, W.S. Chern, F. Hitzhusen and A. Randall, *Property Value Impacts of an Environmental Disamenity*, 22 JOURNAL OF REAL ESTATE FINANCE AND ECONOMICS 185-202 (2010) (draft available at: https://ssrn.com/abstract=290292); D. Hite, A. Jauregui, B. Sohngen, and G. Traxler, *Open Space at the Rural-Urban Fringe: A Joint Spatial Hedonic Model of Developed and Undeveloped Land Values*, Working Paper (November 1, 2006) (available at: https://ssrn.com/abstract=916964); D.M. Brasington and D. Hite, *A Mixed Index Approach to Identifying Hedonic Price Models*, 38 REGIONAL SCIENCE AND URBAN ECONOMICS 271-284 2008 (August 5, 2006) (available at: https://ssrn.com/abstract=928252); E. Affuso, C. de Parisot, C. Ho, and D. Hite, *The Impact of Hazardous Wastes on Property Values: The Effect of Lead Pollution*, 22 URBANI IZZIV 117-126 (2010) (available at: https://ssrn.com/abstract=1427544); D. Hite, *Factors Influencing Convergence of Survey and Market-Based Values of an Environmental Disamenity,* Mississippi State University Agricultural Economics Working Paper No. 2001-011 (November 29, 2001) (available at: https://ssrn.com/abstract=292447); C. Ho and D. Hite, *Economic Impact of Environmental Health Risks on House Values in Southeast Region: A County-Level Analysis*, Working Paper (2005) (available at: https://ssrn.com/abstract=839211); D. Hite, *A Hedonic Model of Environmental Justice*, Working Paper (February 14, 2006) (available at: https://ssrn.com/abstract=884233).

The coefficient of primary interest in the *Hite Report* is δ_1, which measures the percent change in the transaction price for a percentage change in distance from the quarry (D), but only *after* the quarry operations began (see Eq. 1). In this specification (and also for Eq. 3), this elasticity is constant across the full range of distance. With data on 2,812 sales, the *Hite Report* estimates the coefficient δ_1 to be 0.125, where the positive sign indicates the average sale price of homes is higher the further away the homes are from the quarry (statistically significant at the 1% level). The *Hite Report* concludes, as do subsequent reports that adopt the result, that this positive coefficient implies quarries reduce the price of nearby homes. As detailed above, the positive sign on the coefficient δ_1 cannot reasonably be interpreted in this manner since the data is for sales occurring long after quarry operations began, among other concerns.

B. *National Lime & Stone Quarry in Delaware, Ohio*

Replication is the essence of science. Even if the estimated price-distance relationship from Equation (2) lacks a causal interpretation, it is worth evaluating whether the *Hite Report*'s findings can be confirmed. We do so by estimating Equation (2) using data on 2,114 transactions in the same area over the period 1998-2007. Figure 1 offers the kernel density of the distribution of transactions by distance from the quarry. The thinness of the market very near the quarry is plain to see, which is also apparent from a map of the area surrounding the quarry (see Appendix 1).

Figure 1. Transactions and Distance from Quarry



Regression results from Equation (2) are summarized in the first column of Table 1, along with descriptive statistics for the full sample and the sample divided

into homes closer to the quarry than two miles and those further than that distance. The model has a Pseudo-R^2 of 0.25, which is very close to that reported in the *Hite Report* (0.254).[23] Five of the seven estimated coefficients (including the constant term) are statistically different from zero at the 1% level or better.

Table 1. Regression Results and Descriptive Statistics
National Quarry near Delaware, Ohio

	Coef (t-stat)	Mean (St. Dev)	$N = 0$ Mean (St. Dev)	$N = 1$ Mean (St. Dev)
ln*D* (δ_1)	-0.1413***	1.166	1.227	0.518
	(-4.00)	(0.304)	(0.230)	(0.224)
DATE	0.0450***	2002.7	2002.5	2004.4
	(11.13)	(2.952)	(2.969)	(2.125)
DDC	0.0409***	2.876	2.859	3.050
	(5.92)	(2.139)	(2.207)	(1.207)
H2L	-0.102	0.1498	0.148	0.1668
	(-0.81)	(0.1110)	(0.111)	(0.102)
BATH	0.0419	1.806	1.788	1.995
	(1.09)	(0.584)	(0.597)	(0.384)
TOTR	0.1398***	5.099	5.065	5.099
	(7.59)	(1.016)	(1.031)	(1.016)
Constant	-85.71***	…	…	…
	(-10.57)			
Pseudo-R^2	0.250			
Obs.	2,114	2,114	1,930	184

Statistical Significance: *** 1%, ** 5%, * 10%

Despite using exactly the same regression model and data on sales around the same quarry, we find that the transaction prices of homes *decrease* (not increase) as the distance from the quarry increases. The negative coefficient (-0.141) is similar in size *but different in sign* from that found in the *Hite Report* (0.125) and is statistically significant at the 1% level. The estimated coefficient implies a 1% increase in distance reduces home average, quality-adjusted home prices by about 0.14%. Since the coefficient is less than unity, the price-distance relationship is subject to diminishing marginal returns.[24] Figure 2 illustrates the relationship

[23] The Pseudo-R^2 is the squared correlation coefficient between the predicted value of the regression and the dependent variable.

[24] For any fixed change in mileage, the percentage change falls as distance increases.

between sale prices and distance from the quarry, revealing sizable reductions in average prices as distance from the quarry increases.

Figure 2. Price-Distance Relationship

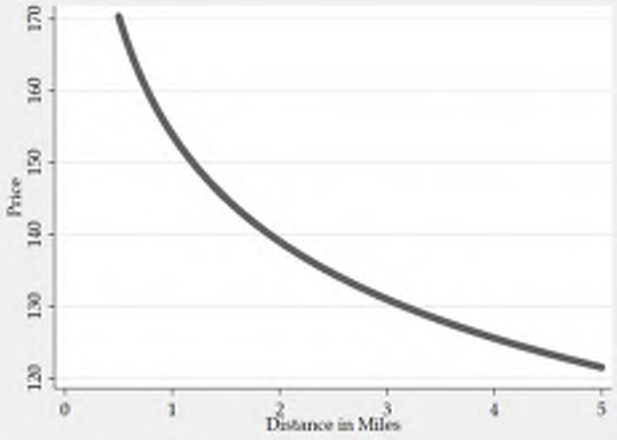


Table 2 summarizes the average predicted prices and price effects at varying distances from the quarry. Interpretation of the table is straightforward. A home sold 3 miles from the quarry will have a price 22% lower that of a home sold within 0.5 miles of the quarry, or 16% lower than the average home sold within 1.5 miles of the quarry. At two miles, the differences are 18% and 11%; at five miles, the differences are 28% and 22%. These are sizable effects.

Table 2. Home Values by Distance from Quarry

	Distance in Miles from Quarry							
	0.5	1.0	1.5	2.0	2.5	3	4.0	5.0
Avg. Price ('000)	169.8	153.9	145.4	139.6	135.2	131.8	126.5	122.6
Reduced Value (from 0.5 miles)	…	-9%	-14%	-18%	-20%	-22%	-25%	-28%
Reduced Value (from 1.5 miles)	…	…	…	-11%	-14%	-16%	-19%	-22%

These estimates and their predicted effect on prices are based on the estimation method (Eq. 2) used in the *Hite Report*. There are other equation specifications and estimation methods that are more consistent with standard practice in the analysis of housing prices (hedonics). In order to assess the robustness of the result, we offer alternative analyses below.

1. *Alternative Estimation Approaches*

As discussed above, Equation (2) is a non-standard method to estimate the relationship of interest. Normally, a researcher would avoid the non-linear Equation (2) and use the natural log of price to estimate Equation (3) by OLS. Statistical testing (such as the Box-Cox test of functional form) may be used to evaluate whether the linear or log-form of the dependent variable is preferred.[25] Other advantages of Equation (3) over Equation (2) is that the linear equation is amenable to estimation by Median Regression ("MReg") and Robust Regression ("RReg"), both of which are less sensitive to outliers in the data than is NLS or OLS.[26] Outliers are common in home sales data, so it is sensible to evaluate the effect on the estimates by these alternative estimation procedures, especially when the results are used in a policy relevant setting that may have significant financial implications.[27] We summarize the results from both methods.

Modern research on housing prices increasingly accounts for the spatial nature of real estate markets using new spatial methods.[28] We estimate the price-distance

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[25] W.E. Griffiths, R.C. Hill and G.G. Judge, LEARNING AND PRACTICING ECONOMETRICS (1993) at pp. 345-7.

[26] *See, e.g.*, R. Koenker, QUANTILE REGRESSION (2005); B.S. Cade and B.R. Noon, *A Gentle Introduction to Quantile Regression*, 1 FRONTIERS IN ECOLOGY AND THE ENVIRONMENT 412-420 (2004) (available at: http://www.econ.uiuc.edu/~roger/research/rq/QReco.pdf); O.O. John, *Robustness of Quantile Regression to Outliers*, 3 AMERICAN JOURNAL OF APPLIED MATHEMATICS AND STATISTICS 86-88 (2015); P.J. Rousseeux and A.M. Leroy, ROBUST REGRESSION AND OUTLIER DETECTION (2005); R. Andersen, MODERN METHODS FOR ROBUST REGRESSION (2008); T.P. Ryan, MODERN REGRESSION METHODS (2008).

[27] C. Janssen, B. Söderberg and J. Zhou, *Robust Estimation of Hedonic Models of Price and Income for Investment Property*, 19 JOURNAL OF PROPERTY INVESTMENT & FINANCE 342-360 (2001); S.C. Bourassa, E. Cantoni and M. Hoesli, *Robust Hedonic Price Indexes*, 9 INTERNATIONAL JOURNAL OF HOUSING MARKETS AND ANALYSIS 47-65 (2016).

[28] Including papers by the *Hite Report*'s author. *See, e.g.,* D.M. Brasington and D. Hite, *Demand for Environmental Quality: A Spatial Hedonic Analysis*, 35 REGIONAL SCIENCE AND URBAN ECONOMICS 57-82 (2005) (draft available at: https://ssrn.com/abstract=491244); *see also* J.M. Mueller and J.B. Loomis, *Spatial Dependence in Hedonic Property Models: Do Different Corrections for Spatial Dependence Result in Economically Significant Differences in Estimated Prices?*, 33 JOURNAL OF AGRICULTURAL AND RESOURCE ECONOMICS 212-231 (2008) (available at: http://ageconsearch.umn.edu/bitstream/42459/2/MuellerLoomis.pdf); L. Osland, *An Application of Spatial Econometrics in Relation to Hedonic House Price Modeling*, 32 JOURNAL OF REAL ESTATE

(Footnote Continued. . . .)

relationship using a Spatial Regression Model ("SReg"). To do so, a spatial weighting matrix (*W*) is computed and spatially-weighted lags of the dependent and independent variables are included in the regression as well as an adjustment for autocorrelated errors.[29]

Table 3. Alternative Estimation Methods
National Quarry near Delaware, Ohio

	OLS	*MReg*	*RReg*	*SReg*	*OLS-CEM*
	Coef (t-stat)	Coef (t-stat)	Coef (t-stat)	Coef (t-stat)	Coef (t-stat)
ln*D*	-0.2726*** (-7.31)	-0.2021*** (-14.21)	-0.1220*** (-5.59)	-0.1558 *** (-2.65)	-0.147*** (-3.00)
DATE	0.0433*** (12.45)	0.0342*** (15.76)	0.0367*** (16.58)	0.0440*** (12.86)	0.0453*** (6.30)
DDC	0.0273*** (3.90)	0.0460*** (8.64)	0.0551*** (15.00)	0.0679*** (5.09)	0.0483*** (3.31)
H2L	0.0794 (0.68)	-0.1131 (-1.47)	-0.2591*** (-3.74)	-0.1779 (-1.48)	0.1812 (0.94)
BATH	0.0485 (1.46)	0.0997*** (5.41)	0.1499*** (7.94)	0.0166 (0.56)	-0.0092 (-0.10)
TOTR	0.1540*** (8.97)	0.1523*** (14.00)	0.1508*** (14.12)	0.1497*** (9.11)	0.2047*** (6.44)
Constant	-82.47*** (-11.82)	-64.31*** (-14.80)	-69.52*** (-15.67)	-77.07*** (-11.25)	-86.77*** (-6.02)
Spatial Terms (χ^2)				242.3***	
Pseudo-R^2	0.246	0.216	0.243	0.265	0.214
Obs.	2,114	2,114	2,114	2,114	1,461

Statistical Significance: *** 1%, ** 5%, * 10%

RESEARCH 289-320 (2010) (available at: http://pages.jh.edu/jrer/papers/pdf/past/vol32n03/03.289_320.pdf).

[29] D.M. Drukker, H. Peng, I.R. Prucha, and R. Raciborski, *Creating and Managing Spatial-Weighting matrices with the* spmat *Command*, 13 STATA JOURNAL 242-286 (2013); D.M. Brasington and D. Hite, *Demand for Environmental Quality: A Spatial Hedonic Analysis*, 35 REGIONAL SCIENCE AND URBAN ECONOMICS 57-82 (2005) (draft available at: https://ssrn.com/abstract=491244). We truncate the distance at 0.5 miles.

(Footnote Continued. . . .)

Results for the alternative estimation methods are summarized in Table 3.[30] Across all four alternatives, the price-distance relationship is negative and statistically different from zero at the 1% level or better. Plainly, the negative price-distance relationship is robust to estimation method. The price-distance elasticity is a good bit larger for OLS and MReg, but similar to that estimated by Equation (2) for both the RReg and SReg methods (in the full sample). Note that more of the regressors are statistically significance in MReg and RReg, suggesting these estimation alternatives are worth consideration.

2. *Coarsened Exact Matching*

Thus far, we have paid no attention to whether homes near the quarry are like those far from the quarry (i.e., covariate overlap). What evidence is available in the *Hite Report* suggests that in her sample the types of homes sold near the quarry may have been be very different than those sold at a distance from it. While distance from the quarry is a continuous variable, we can consider covariate overlap by comparing the characteristics of homes near to and those far from the quarry, using a two-mile cutoff. In Table 1, we do observe some meaningful differences between homes within two miles of the quarry and those further away especially in the year sold and the number of bathrooms and total rooms.[31] To ensure we are comparing like homes, we apply Coarsened Exact Matching ("CEM") to the data and match on these three variables.[32] All 184 transactions within two miles of the quarry are matched to 1,277 (of 1,930) homes further than

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[30] The Box-Cox test statistic for the Delaware County data is 64.1, which is statistically significant at better than the 1% level. The test statistic is distributed $\chi^2(1)$ with a critical value of 2.71 at the 10% level. The natural log transformation, consistent with Equation (3), is preferred to the specification estimated in the *Hite Report*. Or, we might say the problem is not so much in the estimation by NLS rather than OLS but that the natural log transformation of the dependent variable is the better specification.

[31] Standardized differences (the absolute value of the means difference divided by the square root of the summed variances) are used. *See* Imbens and Wooldridge, *supra* n. 8 at p. 24. The rule of thumb for a large difference is a standardized difference exceeding 0.25. For the DATE variable, the standardized difference is 0.51, and about 0.30 for bathrooms and total rooms.

[32] S.M. Iacus, G. King. G. Porro, *Causal Inference without Balance Checking: Coarsened Exact Matching*, Working Paper (June 26, 2008) (available at: https://ssrn.com/abstract=1152391), later published *Causal Inference without Balance Checking: Coarsened Exact Matching*, 20 POLITICAL ANALYSIS 1-24 (2012) (available at: https://gking.harvard.edu/files/political_analysis-2011-iacus-pan_mpr013.pdf).

(Footnote Continued. . . .)

two miles from the quarry. The weights created by the CEM procedure are then used to estimate Equation (3) by weighted OLS.

Results for the CEM-weighted regression are reported in the final column of Table 3. The estimated coefficients are comparable in most respects to the other models.[33] Most significantly, the price-distance relationship remains negative (-0.147) and statistically different from zero. While we do not present the results in the table, we note that when estimated using the non-linear Equation (2) with CEM-weighted data the price-distance relationship is negative (-0.053) but not statistically significant, a difference we will return to later.

C. *Rogers Group Quarry near Murfreesboro, Tennessee*

It is reasonable to expect that the relationship of home prices to distance from a quarry might vary by location. Earlier research suggests this is so in other contexts.[34] To further evaluate the results reported in the *Hite Report*, we collect data on home sales around the Rogers Group Quarry near Murfreesboro, Tennessee.[35] Transaction data is again collected for years 1998 through 2007 and the sample includes 2,311 transactions. Given differences in data availability, we replace the total number of rooms with square footage (*SQFT*). Distance from the city center (*DCC*) is measured from Murfreesboro. We apply the same methods as before, estimating Equation (2) by NLS and then Equation (3) by OLS, MReg, RReg, and SReg. Results are summarized in Table 4. We do not observe large differences between the characteristics of home sold near to and far from the quarry, so we do not apply CEM for this quarry.

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[33] CEM-weighting often alters the coefficients and their significant levels since the data is better matched.

[34] *See supra* n. 7 and citations therein.

[35] The quarry is located at coordinates: 35.884699, -86.530625.

Table 4. Regression Results and Descriptive Statistics
Rogers Quarry near Murfreesboro, Tennessee

	NLS Coef (t-stat)	*OLS* Coef (t-stat)	*MReg* Coef (t-stat)	*RReg* Coef (t-stat)	*SReg* Coef (t-stat)
ln*D*	-0.0655***	-0.0383***	-0.0320***	-0.0327***	-0.0222
	(-4.99)	(-2.63)	(-3.01)	(-3.78)	(-0.72)
DATE	0.0522***	0.0443***	0.0407***	0.0404***	0.0444
	(27.09)	(20.36)	(31.73)	(35.55)	(23.05)
DDC	-0.0035*	-0.0006	-0.0007	-0.0011	-0.0012
	(1.85)	(-0.26)	(-0.44)	(-0.84)	(-0.15)
H2L	-0.6590	0.6404	-2.170***	-2.676***	0.3311
	(-1.11)	(0.42)	(-4.47)	(-5.84)	(0.42)
BATH	0.1395***	0.1666***	0.1811***	0.1759***	0.1344***
	(17.65)	(13.44)	(24.06)	(28.87)	(12.17)
SQFT	0.00026***	0.00021***	0.00032***	0.00033***	0.00018***
	(17.40)	(5.82)	(25.01)	(29.27)	(9.10)
Constant	-100.3***	-84.59***	-77.57***	-76.87***	-77.84***
	(-17.40)	(-19.52)	(-30.57)	(-33.79)	(-20.17)
Spatial Terms (χ^2)					385.2***
Pseudo-R^2	0.692	0.590	0.529	0.678	0.605
Obs.	2,311	2,311	2,311	2,311	2,311

Statistical Significance: *** 1%, ** 5%, * 10%

The fit the regressions (R^2 is around 0.60) is much higher than for the Delaware data, but the negative coefficients on distance are seen again. For the NLS model, the price-distance relationship is -0.0655 and the coefficient is statistically different from zero at better than the 1% level. Across the alternative specifications and estimation methods, the price-distance relationship is consistently negative and statistically different from zero, save one exception. Only in spatial regression is the price-distance relationship not statistically significant, though the coefficient is negative and similarly sized to the other models.

Additional evidence also leads to questions about the negative views of quarries. If quarries were a disamenity, then we might expect people to avoid living around them. Figures 3A-3C in Appendix 3 demonstrate population movements for Rutherford County, Tennessee, with emphasis on the Rogers Group quarry. Population is measured using U.S. Census Bureau population data for years 1990, 2000, and 2010. These figures show population density increasing

dramatically over this time period in the same census block as the Rogers Group quarry. These population movements toward the quarry in conjunction with the econometric results further indicate the Murfreesboro quarry is not a great disamenity, if a disamenity at all.

D. *Randomized Inference and the Implausibility of the Model*

Our analyses of home prices near the quarries in Delaware, Ohio, and Murfreesboro, Tennessee, find a negative and statistically significant relationship between home prices and distance from a rock quarry in most specifications and estimation methods. Consequently, we find no evidence that supports the findings of the *Hite Report*, despite using the same model and, in one instance, the same quarry from that earlier study. We fear, however, that these estimated relationships are mainly the consequence of the *Hite Report*'s poor experimental design than they are a measure of any real effect of the quarry. Indeed, we question whether the quantification of the effect of a disamenity or amenity can be plausibly estimated by a price-distance relationship. In Delaware County, for instance, it is not hard to find a statistically-significant price-distance relationship (using Eq. 2) from just about anywhere: the Church of the Nazarene off Highway 101 (δ_1 = -0.058, t = -2.79); The Greater Gouda gourmet grocery on North Sandusky Road (δ_1 = 0.268, t = 6.92); and the Foot & Ankle Wellness Center off South Hook Road (δ_1 = -0.043, t = -2.99).

Given patterns in real estate development, it seems plausible that a positive or negative price-distance relationship would be observed from almost any location. A sensible way to evaluate the reliability of the distance-based hedonic regressions is to apply the method of randomized inference (a type of pseudo-treatment).[36] In this procedure, the location of a "disamenity" or "amenity" is randomly chosen in the geographic area under study. Given the random assignment of location, we might expect the price-distance relationship to be statistically significant in proportion to the alpha-level of the statistical test (say, a 10% significance level) due to random variation. That is, a valid statistical test conducted at the 10% level

[36] R.A. Fisher, THE DESIGN OF EXPERIMENTS (1935); P.R. Rosenbaum, OBSERVATIONAL STUDIES (2002); M.D. Cattaneo, B.R. Frandsen, and R. Titiunik, *Randomization Inference in the Regression Discontinuity Design: An Application to Party Advantages in the U.S. Senate*, 3 JOURNAL OF CAUSAL INFERENCE 1–24 (2015); T. Fujiwara and L. Wantchekon, *Can Informed Public Deliberation Overcome Clientelism? Experimental Evidence from Benin*, 5 AMERICAN ECONOMIC JOURNAL: APPLIED ECONOMICS 241–255 (2013).

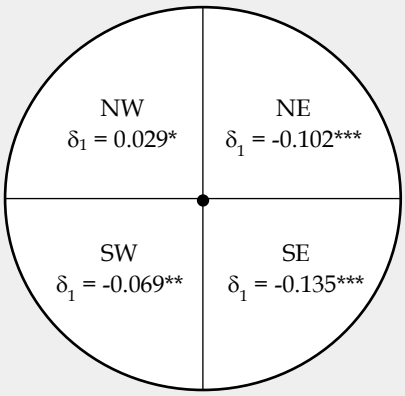
will reject the null hypothesis 10% of the time even if the null is true (e.g., Type I error).

We conduct such tests using the following simulation. First, a random location (latitude, longitude) within the Delaware area is chosen (see Appendix 4 for an illustration of the process). Second, the distances from this location to all home sales is computed. Third, we replace in the regression model the variable measuring distance from the quarry (D) with this alternate distance measure (D'). Fourth, we estimate a regression of price on the same variables as above, obtaining the coefficient, t-statistic and its probability on δ_1. Fifth, this process is repeated 1,000 times. Finally, from these 1,000 simulations, we can compute how often the null hypothesis of "no effect" is rejected.

At the threshold significance level of 10%, the null hypothesis is rejected in a whopping 67% of the simulations for the data from Delaware County, sometimes with positive and sometimes negative coefficients. Conducting the same simulation for Murfreesboro, the rejection rate is an even larger 93%. Given the random selection of locations in the simulation, this result is a powerful indictment against the sort of model employed in the *Hite Report*. A researcher may pick just about any location and find a statistically-significant price-distance relationship. We conclude based on this analysis that the addition of a distance variable to a hedonic model in an effort to identify the effect of a quarry on home prices is a poor experimental design with grossly inaccurate inference tests, especially when using asymptotic critical values for hypothesis testing and only data on post-operation transactions. In fact, we suspect many of the hedonic studies using distance from disamenities may be similarly unable to identify an effect of interest, but leave that question to future research.

Another problem with estimating the price-distance relationship is that unlike square footage, distance from a quarry is not unidimensional but occurs on a coordinate plane. A house may be located to the east or to the west, to the north or to the south, of a quarry, and moving closer to or away from the town center, a university, a landfill, or any other site that may influence prices. To see this, we divide the transaction data near Murfreesboro into four quadrants around the quarry (northeast, northwest, southeast, and southwest) and estimate a price-distance relationship unique to each quadrant (using Eq. 2). Results are summarized in Figure 3.

Figure 3. Price-Distance Relationship
Quadrants around Murfreesboro Quarry



From Figure 3, we see that the price-distance relationships are not equal across quadrants but rather differ substantially by the direction of the movement away from the quarry. From Table 4, we know that the average price-distance relationship from this quarry is negative (and statistically significant). Yet, from Figure 3, we see that the price-distance relationship is positive in the Northwest quadrant, but negative in all other quadrants. All the estimated price-distance relationships are statistically different from zero at the 10% level or better. It appears, therefore, that there is no "price-distance relationship" but many "price-distance relationships" from any given site. We believe these results are more evidence of the spurious nature of the price-distance relationship estimated using hedonic models of housing prices.

In light of our randomized inference procedure and additional evidence, we conclude, for now, that the type of model and experimental design used in the *Hite Report* is entirely unsuited to the task of identifying the price impact of quarries. Our results from replication efforts, which consistently find a negative price-distance relationship, are no less implicated by the defect than those of the *Hite Report*. Identifying the effects of quarries on housing prices requires a different experimental design, and careful attention to selection bias, covariate overlap, and the numerous ramifications of thin markets around the site. We attempt to offer some better evidence below.

E. *Spurious Regression and the Search for Results*

In light of the evidence that a statistically significant price-distance relationship is found for no less than seven-out-of-ten randomly chosen locations,

we conclude the *Hite Report*'s experimental design is incapable of quantifying the effect of quarries on house prices. The results from such models are spurious. Consequently, we expect that the price-distance relationship will be sometimes positive, sometimes negative, sometimes statistically significant and sometimes not for any given quarry. Statistical significance is the flip of a coin heavily weighted toward the rejection of the null hypothesis. Our analysis also shows that the choice of estimation method may alter the estimated coefficient and its significance, a common trait of spurious regression.

The fact different quarries and different estimation methods produce different results advises caution in conducting and assessing such studies, especially in a policy-relevant context when economic development is at stake. Inference errors may be inadvertent, or an advocate may exploit the spurious nature of the relationship by searching for a location, model specification, and time period to produce an outcome supporting a favored policy position. We can demonstrate the risks of such an ends-driven search by looking at more recent data for Delaware, Ohio, using data on prices for the five-year period 2012 through 2016 (1,429 transactions). The models and variables are measured in the same way as above.

Table 5 summarizes the results from a few estimation methods. For expositional purposes, we present only on the price-distance relationship. Using the unconventional Equation (2) from the *Hite Report*, we find that the price-distance relationship for this period is positive—a statistically significant result (by asymptotic convention). The result is opposite of that estimated for the data from the 1998-2007 period, even though the location is the same. Without any constraint on the choice of time period to analyze, an unscrupulous advocate is free to choose data from different periods in search of results to support his or her position.

Table 5. Results Delaware Quarry, Years '12-16

	NLS Coef (t-stat)	*OLS* Coef (t-stat)	*MReg* Coef (t-stat)	*RReg* Coef (t-stat)	*SReg* Coef (t-stat)
ln*D*	0.1285***	0.0192	-0.0065	0.0412	0.0780
	(3.45)	(0.52)	(-0.32)	(1.63)	(1.10)
Spatial Terms (χ^2)					41.28***
Pseudo-R^2	0.392	0.332	0.263	0.377	0.347
Obs.	1,429	1,429	1,429	1,429	1,429

Statistical Significance: *** 1%, ** 5%, * 10%

Model selection and variable choice may also be used in an ends-drive search for results. As shown in Table 5, estimating Equation (3), a standard functional form for hedonic regressions, the positive coefficient is now a sixth the size of that estimated by Equation (2) and is no longer statistically different from zero at standard levels.[37] Also, Median, Robust and Spatial Regression do not find statistically significant price-distance relationships. In fact, the only model that produces a statistically-significant positive effect is the non-standard regression equation used in the *Hite Report*. Moreover, if we replace the *TOTR* variable with the *SQFT* variable in the NLS model, the price-distance relationship shrinks to 0.02 (one-sixth the size) and the coefficient is no longer statistically significant. Again, a researcher may pick-and-choose model specification, along with time period analyzed and regressors, to obtain a desired result. Skepticism is warranted for any analysis of the price effects of quarries (and amenities or disamenities generally) absent robustness analysis across time and model specifications.

Table 6. Results Delaware Quarry, Years '98-07 & '12-16

	NLS Coef (t-stat)	*OLS* Coef (t-stat)	*MReg* Coef (t-stat)	*RReg* Coef (t-stat)	*SReg* Coef (t-stat)
ln*D*	0.10028	-0.1361***	-0.0963***	-0.0501***	-0.1059**
	(0.11)	(-5.04)	(-6.33)	(-2.89)	(-2.10)
Spatial Terms (χ^2)					41.28***
Pseudo-R^2	0.302	0.262	0.219	0.288	0.151
Obs.	3,543	3,543	3,543	3,543	3,543
Statistical Significance: *** 1%, ** 5%, * 10%					

As another check on robustness (or a lack thereof), we combine the data from 1998-2007 and 2012-2016, excluding those years when the housing market and economy generally were in turmoil (2008-2011). Results on the price-distance relationship are summarized in Table 6. Now, Equation (2) estimated by NLS reports a statistically insignificant (but positive) coefficient for the price-distance relationship. The other estimation methods, however, all confirm the negative and statistically significant relationship consistent with the results in Tables 1 and 3. It appears, therefore, whether or not quarries affect prices hinges on model selection and dates selected, which simply demonstrates the spurious nature of these sorts of experiments. Plainly, care must be given to model selection, and robustness analysis should be thorough and explicit. And, in light of the randomized

[37] The Box-Cox test indicates a preference for the transformation ($\chi^2 = 40.7$).

inference and quadrant analysis above, the utility of the price-distance relationship for quantifying the effects of quarries and disamenities should be regarded as defective, at least until further research demonstrates otherwise.

The analyses presented here, we believe, offers compelling evidence that the *Hite Report*'s experimental design is a flimsy method, easily manipulated to produce nearly any desired result through the selection of location, model specification, estimation technique, and the time period analyzed. The *Hite Report*'s findings cannot be reliably replicated and conflicting results are readily obtained. The spurious nature of the price-distance relationship from such experiments is clearly demonstrated, and the defective approach allows for nearly any result imaginable. Using data long after a quarry opens poses no limits on the selection of time period, enhancing the risk of the exploitation of spurious regression for economic and political advantage.

IV. A Difference-in-Difference Approach

As detailed above, to quantify the effect of a quarry on home prices the researcher ideally needs pricing data both before and after quarry operations begin.[38] With this data, statistical analysis can determine how the relationship between price and distance from the quarry *changes* after the quarry opens, thus quantifying, under some well-known assumptions, a plausible causal effect.

There are some potential shortcomings with a simple before-and-after analysis, however. New quarries take years to get approval and normally we expect equity prices to reflect new information quickly, so price effects may precede that event. In this section, we offer two before-and-after analyses of the effect of a quarry on home prices. First, we evaluate pricing activity around the Vulcan quarry in Gurley, Alabama, which began operations in 2013. Gurley is a rural area not far from the city of Huntsville, Alabama. Consistent with the analysis above, we use the general format of the *Hite Report* (and several

[38] Another possible identification strategy involves exploiting policy experiments with respect to residential distance from a quarry. For example, if some states required houses to be a certain distance away from a quarry while other states did not, then a credible counter-factual could be constructed allowing the researcher to estimate the effect of quarry distance on home prices. A regression discontinuity design could be used to identify the price-distance relationship if regulations required potential home buyers to be informed of the quarry for homes within a certain distance. Homes just inside and just outside this cut-point would could be used as treatment and control units to identify the causal price-distance relationship.

(Footnote Continued. . . .)

alternatives) to test for a *change* in the price-distance relationship after the quarry opens.

Second, we evaluate the price effects of the contested Austin Quarry in Madera, California, which was approved in 2016.[39] Located in the southwest corner of the intersection of Highway 41 and Highway 145, the site is proximate to two subdivisions, one located on Highway 145 and the other on Highway 41. Thus, not only are the subdivisions proximate to the quarry, but both are expected to deal regularly with the quarry's traffic flow. Though first proposed in 2010, media coverage and public protest did not begin until 2013, at which time the new quarry might be expected to affect home prices through an announcement effect.[40] A control group is chosen using CEM from homes sales in subdivisions not too far from the quarry site but beyond the range of influence. We find no statistically significant effect of the quarry in either model, though in both cases the estimated coefficients indicate, if anything, the quarry raises property values.

A. *The Empirical Model*

For these analyses, we employ the standard regression model for the DiD estimator. Using a log-linear form common to hedonic regressions, the regression equation is,

$$\ln p_{it} = \Delta T \cdot N_i + \delta_0 N_i + \beta_0 + \sum_{j=2}^{k} \beta_j X_{j,i} + \upsilon_{it} \ , \qquad (4)$$

where T is dummy variable equal to 1.0 after the treatment and N_i is a dummy variable for homes near the quarry site (or a continuous measure of distance from the quarry). The estimated coefficient δ_0 measures the difference in average sale prices for homes near the quarry (or the effect of distance from it) *prior to the treatment*. After the treatment, the difference in price between homes near and far from the quarry is $\Delta + \delta_0$. The difference between the two effects is Δ, which is the DiD estimator, as defined in Equation (1), or $\Delta = \delta_1 - \delta_0$. The t-test on the coefficient

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[39] J. Rieping, *Controversial Quarry Up for Vote*, MADERA TRIBUTE (July 16, 2016) (available at: http://www.maderatribune.com/single-post/2016/07/16/Controversial-quarry-up-for-vote); M.E. Smith, *Austin Quarry Approved in 3-2 Vote*, SIERRA STAR (July 20, 2016) (available at: http://www.sierrastar.com/latest-news/article90713132.html).

[40] Lexus-Nexus search conducted on February 20, 2018. B. Wilkinson, *Concerns Over Truck Traffic on Road*, SIERRA STAR (February 21, 2013).

Δ is, therefore, a direct test of the statistical significance of the effect of a quarry on home prices.

As an alternative, we estimate,

$$\ln p_{it} = \Delta T \cdot N_i + \beta_0 + \sum_{j=2}^{k} \beta_j X_{j,i} + \lambda_t + \nu_{it} \ , \tag{5}$$

where the continuous *DATE* variable is replaced with year fixed effects (λ_t), which is a somewhat standard treatment of time in the DiD regression. Due to collinearity with the fixed effects, the $\delta_0 N$ term is no longer included in the regression, but the interpretation of Δ is unchanged.

For consistency with the earlier analysis, we also estimate the model specification of the *Hite Report*, adding as a regressor the interaction of a treatment dummy variable for years 2013 and later (*T*). The regression model is,

$$p_{it} = \exp(\delta_0 \ln D_i + \Delta \ln T \cdot D_i + \beta_0 + \sum_{j=2}^{k} \beta_j X_{j,i}) + \varepsilon_{it} \, , \tag{6}$$

where the variables are defined the same way as the Murfreesboro analysis (i.e., total rooms is replaced with square footage). The coefficient δ_0 quantifies the price-distance relationship prior to the initiation of quarry operations in 2013. Starting in 2013, the price-distance relationship is measured by $\delta_0 + \Delta = \delta_1$, where Δ measures the *change* in the slope of the price-distance relationship. If the quarry reduces home values near the quarry, then Δ should be positive and statistically significant. Equation (6) is estimated by NLS.

B. *Vulcan Quarry in Gurley, Alabama*

As with the earlier analysis, data is obtained on home sales within a five-mile radius of the quarry location in Gurley, Alabama. The quarry began operations in 2013, and our data spans 2005 through portions of 2017. The sample includes 593 transactions, but we note only 83 are for sales prior to 2013.[41] Since there is no "city

[41] The low samples are likely the consequence of the rural nature of the market and data collection in such areas. We cannot exclude the possibility the sample is peculiar in some respect.

center" in the area, the *DCC* variable is measured as the distance from the WalMart Supercenter in the nearby town of Big Cove.

Table 7. Regression Results and Descriptive Statistics
Vulcan Quarry in Gurley, Alabama

	NLS-Eq. 6 Coef (t-stat)	*OLS-Eq. 4* Coef (t-stat)	*OLS-Eq. 5* Coef (t-stat)	Mean (St. Dev)
ln*D*	0.0876	0.2723***	0.3679**	3.445
	(0.97)	(3.64)	(2.20)	(0.987)
T·ln*D*	-0.1205**	-0.0543	-0.1587	2.936
	(-2.41)	(-1.07)	(-0.88)	(1.50)
DATE	0.0162*	0.0191*	…	2014.1
	(1.67)	(1.85)		(2.30)
DDC	-0.0456***	-0.0529***	-0.0512***	4.484
	(-5.85)	(-5.99)	(-5.80)	(2.27)
H2L	-1.2185	-0.2457	0.1868	0.063
	(-0.79)	(-0.11)	(0.08)	(0.029)
BATH	0.1752***	0.2672***	0.2655***	2.875
	(6.92)	(8.84)	(8.71)	(0.932)
SQFT	2.2E-04***	2.0E-04***	1.9E-04***	2,870.3
	(5.97)	(3.22)	(3.11)	(1,139.8)
Constant	-27.99	-27.57	10.61***	…
	(-1.43)	(-1.32)	(36.57)	
λ_t	No	No	Yes	…
Pseudo-R^2	0.641	0.602	0.608	…
Obs.	593	593	593	593

Statistical Significance: *** 1%, ** 5%, * 10%

Results are summarized in Table 7.[42] Many of the coefficients are statistically significant and similar to those estimated using the Murfreesboro data. First, for Equation (6) estimated by NLS, we find that housing prices rise as distance from the quarry increases (the coefficient on ln*D* is positive), but this positive effect is observed *prior to the beginning of quarry operations*. After the quarry opens, the positive (though statistically insignificant) price-distance relationship is attenuated; the estimated Δ coefficient is -0.103 and the null hypothesis of "no effect" for the DiD estimator is rejected at the 5% level. Prior to 2013, the price-

[42] Since we do not observe large differences in the characteristics of homes near to and far from the quarry, we do not apply CEM.

distance elasticity is 0.088 (δ_0), but after 2013 it is -0.033 (δ_1), a small effect that is statistically indistinguishable from zero (F-stat = 0.16, prob = 0.69).

Turning to Equation (4), the price-distance relationship is again positive (and much larger than with NLS) but is now statistically significant prior to the beginning of quarry operations. The Δ coefficient is -0.054, which while negative is no longer statistically different from zero at standard levels. The positive price-distance relationship is attenuated after the quarry began operating, but not to a statistically significant degree. The results are similar for Equation (5). Though not summarized in the table, we note that for MReg and RReg neither of the quarry-distance coefficients is statistically different from zero. The SReg results, also not presented in the table, are not wholly unlike the OLS estimates of Equation (4); the coefficient δ_0 is positive (0.331, t = 4.45) and statistically significant, but the Δ coefficient is negative (-0.055, t = 0.98) and not statistically different from zero.

The lack of robustness to specification leads us to conclude that the most likely effect of the quarry is no effect at all. Also, we acknowledge that the defects in the *Hite Report*'s empirical strategy is as relevant here as before: our randomized inference simulation computes a rejection rate on δ_0 of 65% and for Δ of 67% (at a nominal 10% significance level). While we recognize the limitations of the data and the methods, on whole the results are entirely at odds with the claim that quarries reduce housing prices. If anything, the effect is the opposite.

C. *Austin Quarry in Madera County, California*

Quarry sites often take years for approval. Our model of the Gurley quarry presumed that prices do not reflect the quarry operations until after the quarry is operational. A reasonable argument may be made, however, that home prices might adjust before the quarry opens when the local population becomes aware of the future quarry site. We consider that possibility now.

The Austin Quarry in Madera, California, was approved in September 2016 despite a substantial NIMBY effort.[43] A search of news outlets reveals that public attention to proposed quarry initiated in early 2013 and was very active is

[43] M. Smith, *Supervisors Approve Austin Quarry 3-2*, SIERRA STAR (September 12, 2016) (available at: http://www.sierrastar.com/news/local/article101492412.html).

(Footnote Continued. . . .)

subsequent years.[44] Thus, we define the treatment dummy *T* as having values of one in years after 2013 (and also consider other years). Data is collected for the ten years preceding the treatment date, so the data spans 2007 through 2016.

The Austin Quarry site is well outside of town, but there are two subdivisions proximate (less than three miles) to the site: Bonadelle Racheros-Madera Ranchos and Bonadelle Rancheros Nine. Both subdivisions abut the major highways (Highways 41 and 145) servicing the quarry site. If any homes are to be affected by the quarry, then these are the most likely candidates, and they represent our treatment group. The dummy variable *N* takes a value of 1 for these subdivisions (zero otherwise). Visual inspection of the area points to a number of subdivisions in the vicinity that are neither on the major highways serving the site nor within ten miles of the site: Madera Estates, Madera Country Club, Lake Madera Country Club, Chuk Chanse, Valley Lake Ranchos, Madera Acres, Madera Knolls, and Madera Highlands. A control group will be selected from home sales in these subdivisions.

Estimation of the DiD estimator employs Equation (5). Regressors include the age of the home at the sale data (*AGE*), square footage (*SQFT*), the number of bedrooms (*BED*) and bathrooms (*BATH*), a dummy variable indicating whether the home a two story home (*STRY*), a dummy variable indicating the presence of a fireplace (*FIRE*), a dummy variable indicating whether the home has a swimming pool (*POOL*). Year fixed effects are included.

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[44] B. Wilkinson, *Concerns Over Truck Traffic on Road*, SIERRA STAR (February 32, 2013); G. Smith, *Economic Costs and Benefits of the Proposed Austin Quarry in Madera County* (October 23, 2014) (available at: http://www.noaustinquarry.org/wp-content/uploads/2016/08/Austin-Quarry-Economics-Report.pdf); M.E. Smith, *Progress Continues on Austin Quarry*, SIERRA STAR (February 10, 2016) (available at: http://www.sierrastar.com/news/article87816032.html); B. Wilkinson, *Group Opposes Proposed Rock Quarry*, SIERRA STAR (November 12, 2014) (available at: http://www.sierrastar.com/news/article87802492.html); D. Joseph, *Quarry Issues Need to be Addressed*, SIERRA STAR (December 3, 2014) (available at: http://www.sierrastar.com/opinion/article87803072.html).

Table 8. Descriptive Statistics
Austin Quarry in Madera County, California

Variable	ALL Mean (St.Dev)	*N*=0 Mean (St.Dev)	*N*=1 Mean (St.Dev)	Stan. Diff.
AGE	16.13 (12.16)	16.50 (12.22)	15.21 (11.95)	0.075
SQFT	1811.6 (522.7)	1706.7 (490.6)	2072.9 (509.5)	0.518*
BED	3.32 (0.59)	3.27 (0.54)	3.43 (0.70)	0.179
BATH	1.99 (0.68)	1.83 (0.66)	2.38 (0.56)	0.639*
STRY	0.024 (0.15)	0.016 (0.12)	0.043 (0.20)	0.115
FIRE	0.632 (0.48)	0.730 (0.44)	0.390 (0.49)	0.515*
POOL	0.068 (0.25)	0.033 (0.17)	0.159 (0.36)	0.311*
Price	215.4	195.0	266.3	
Price/*SQFT*	120.8	116.4	131.9	
Obs.	887	633	254	

Descriptive statistics for the treatment and control pool are provided in Table 8. The homes are similar in some respects, but large standardized differences (> 0.25) are found for square footage, the number of bathrooms, and the presence of a fireplace or pool.[45] CEM based on *SQFT*, *BATH*, *FIRE*, and *POOL* reduces the standardized differences to acceptable levels for all the regressors. We are able to match 229 of 254 homes in the treated group to 450 of 633 homes in the control pool, for an estimation sample of 679 home sales.

[45] Imbens and Wooldridge, *supra* n. 8.

Table 9. Regression Results and Descriptive Statistics
Austin Quarry in Madera County, California

	OLS Coef (t-stat)	*CEM-OLS* Coef (t-stat)	*CEM-MReg* Coef (t-stat)	*SReg* Coef (t-stat)
N (δ_0)	0.1166**	0.1277**	0.1194***	0.1913**
	(2.47)	(2.08)	(4.99)	(2.11)
$T{\cdot}N$ (Δ)	0.1663***	0.1005	0.1161***	0.0878
	(2.95)	(1.21)	(3.14)	(1.32)
AGE	0.0017	0.0087***	-0.0003	-0.0055*
	(1.20)	(3.47)	(-0.35)	(-0.35)
SQFT	1.7E-04***	1.3E-04**	3.0E-04***	2.0 E-04***
	(3.40)	(2.05)	(12.68)	(4.39)
BED	0.0349	0.01205***	0.0450**	-0.0542
	(0.90)	(2.63)	(2.49)	(1.54)
BATH	0.0288	-0.0439	-0.0777***	-0.0218
	(1.08)	(-0.60)	(-2.60)	(-0.61)
STRY	-0.0878	-0.0408	0.0043	-0.1378
	(-0.70)	(-0.33)	(0.05)	(-1.29)
FIRE	0.0770**	0.0650*	0.0422***	0.0305
	(2.43)	(1.73)	(2.94)	(0.88)
POOL	0.1833***	0.1577***	0.0853***	0.2346***
	(3.71)	(4.03)	(3.68)	(3.63)
Constant	11.21***	10.92***	11.35***	11.62***
	(98.08)	(70.30)	(20.67)	(83.17)
λ_t	Yes	Yes	Yes	Yes
Spatial Terms (χ^2)				27.17***
Pseudo-R^2	0.482	0.491	0.361	0.186
Obs.	887	679	679	887

Statistical Significance: *** 1%, ** 5%, * 10%

Regression results are summarized in Table 9. For comparison purposes and to illustrate the important effects of covariate balance, estimates for both the full and CEM-weighted samples are provided. The models fit the data well for both samples. For the full sample, which we caution does not rely on balanced data, the estimated δ_0 coefficient (0.117) indicates that prices in the treated group were about 12% higher [$\exp(\delta_0) - 1$] in the pre-treatment period. After the treatment, the prices were even higher ($\Delta = 0.166$), a statistically significant result of about an 18% increase. The remaining coefficients are sensibly sized and many are statistically different from zero. A swimming pool, for instance, raises price by about $38,000.

Turning to the CEM-weighted model, the price difference before the treatment is a bit larger ($\delta_0 = 0.128$), and the difference is statistically significant at standard

levels. As in the full sample, the DiD estimator Δ is positive (0.100), but now it is not statistically significant. For the balanced sample, we cannot reject the null hypothesis that the quarry's announcement effect is zero, though the coefficient is relatively large and the t-statistic is much larger than 1.00. In contrast, for the CEM-weighted MReg, prices are higher in the treated area during both the pre-treatment and treatment period, and both coefficients are statistically different from zero at better than the 1% level.

In the final column of Table 9, we summarize the results from SReg using the full sample. The spatial terms are statistically significant at the 1% level. The results are comparable to the others. Prices are higher in the treated area before the treatment, but we do not see a statistically significant change is seen after the treatment. The DiD estimator Δ is positive and relatively large (0.09), but statistically significant only at the 20% level.

Table 10. Regression Results, Annual Treatment Effect
Austin Quarry in Madera County, California

	2013 Coef (t-stat)	2014 Coef (t-stat)	2015 Coef (t-stat)	2016 Coef (t-stat)
$T{\cdot}N$ (Δ)	0.2721*** (2.65)	0.0018 (0.01)	0.0322 (0.42)	0.3949 (1.41)
Statistical Significance: *** 1%, ** 5%, * 10%				

Finally, we can estimate the Δ coefficient for each year beginning with our chosen treatment date (2013), thereby assessing whether that choice is influencing the estimate.[46] The results by year are summarized in Table 10. Large positive coefficients are observed in years 2013 and 2016 (the latter close to being statistically significant), and smaller positive coefficients for the other years. These results are consistent with those reported in Table 9.

Notably, we do not estimate a price-distance relationship in these equations. Distance from the quarry site is not a regressor. Unlike the distance-based model, the rejection rates for randomized inference (assigning the homes in the treatment group randomly from those in the sample) are very close to the nominal level of the test (11% rejection rate versus 10% nominal test level). The statistical reliability

[46] The coefficients are year specific and do not quantify the average after the treatment year, as do the results from Table 9.

of this approach is much superior to the price-distance approach used in the *Hite Report*.

Taken together, we conclude from these results indicate that the effect of the quarry may very well be zero, at least in the form of an announcement effect. If there is any effect, it is positive. Whether or not the quarry will affect prices, either positively or negatively, after operations begin (assuming they do) is unknowable at this time. In light of the evidence presented here and in prior research, the expectation must be that there will be little to no effect on home prices and, if anything, that effect may be positive.

V. Conclusions

We estimate the effect of rock quarries on home prices with data from four quarry locations across the United States, a wide range of econometric specifications and robustness checks, and a variety of temporal circumstances from the lead-up to quarry installation to subsequent operational periods. We find no compelling statistical evidence that either the anticipation of, or the ongoing operation of, rock quarries negatively impact home prices. While our study extends the literature on estimating the effects of "disamenities," primarily as a critique of existing methods, the empirical problem is difficult and likely requires advanced research methods beyond what we provide here. The primary obstacle to estimating these effects is the lack of data and that lack of data is actually driven by the quarry site selection process, which limits our ability to infer a causal relationship. Thin markets and a subsequent lack of sales data are a serious problem since quarries are today (and typically in the past) located, by design, away from residential density.

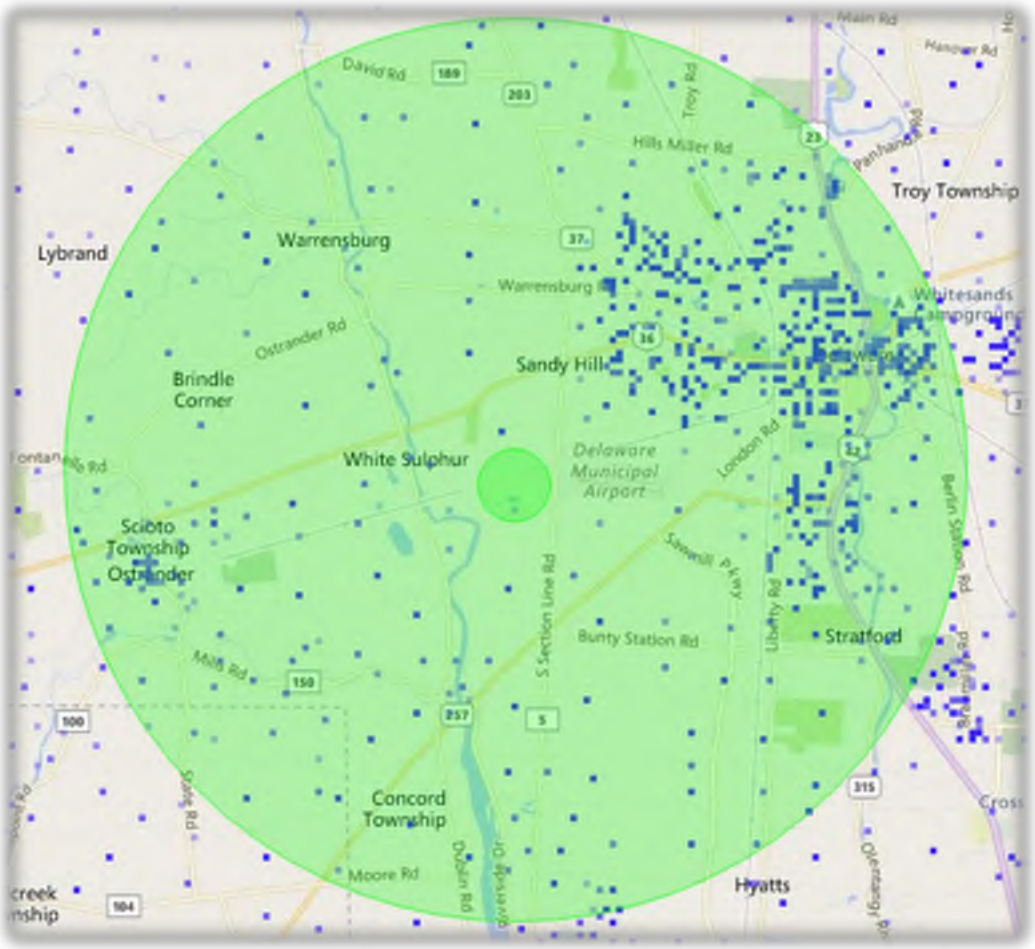
Our study highlights a number of shortcomings in the empirical methodologies generally used to estimate the effect of disamenities on real estate prices. First and foremost, the vast majority of studies do not (or even attempt to) identify the causal effect of disamenities. That is, existing studies are naïve as to the empirical conditions necessary to identify a causal relationship and do not establish credible strategies to estimate the counter-factual outcome—i.e., how the real estate around quarries would have looked, on average, without a landfill or other disamenity. To evaluate the credibility of existing studies and their methodologies, we first employ permutation tests to examine whether or not the existing methodologies yield higher than expected rejection rates of the null hypothesis. We accomplish this by randomly assigning a location in our sample space with a "disamenity" (i.e., a placebo quarry) and then estimate the effect on surrounding home prices. The null hypothesis of "no effect" of the placebo

quarries is rejected in no less than 7 out of 10 simulations, and at a rate as high as 9 out of 10 simulations.

In an attempt to produce a meaningful counter-factual we employ a difference-in-differences estimation strategy which exploits the timing and placement of a quarry. We use this strategy in two different contexts: (1) before and after operations of a quarry in Gurley, Alabama; and (2) before and after local debate (and subsequent approval) of a quarry in Madera County, California. The first exercise estimates the effect of quarry operations on home prices and the second exercise estimates the anticipatory effect of a quarry on home prices. Neither exercise yields evidence of a negative impact on home prices. Given a number of data concerns and model limitations (since our interest is primarily in replication), further research is advised.

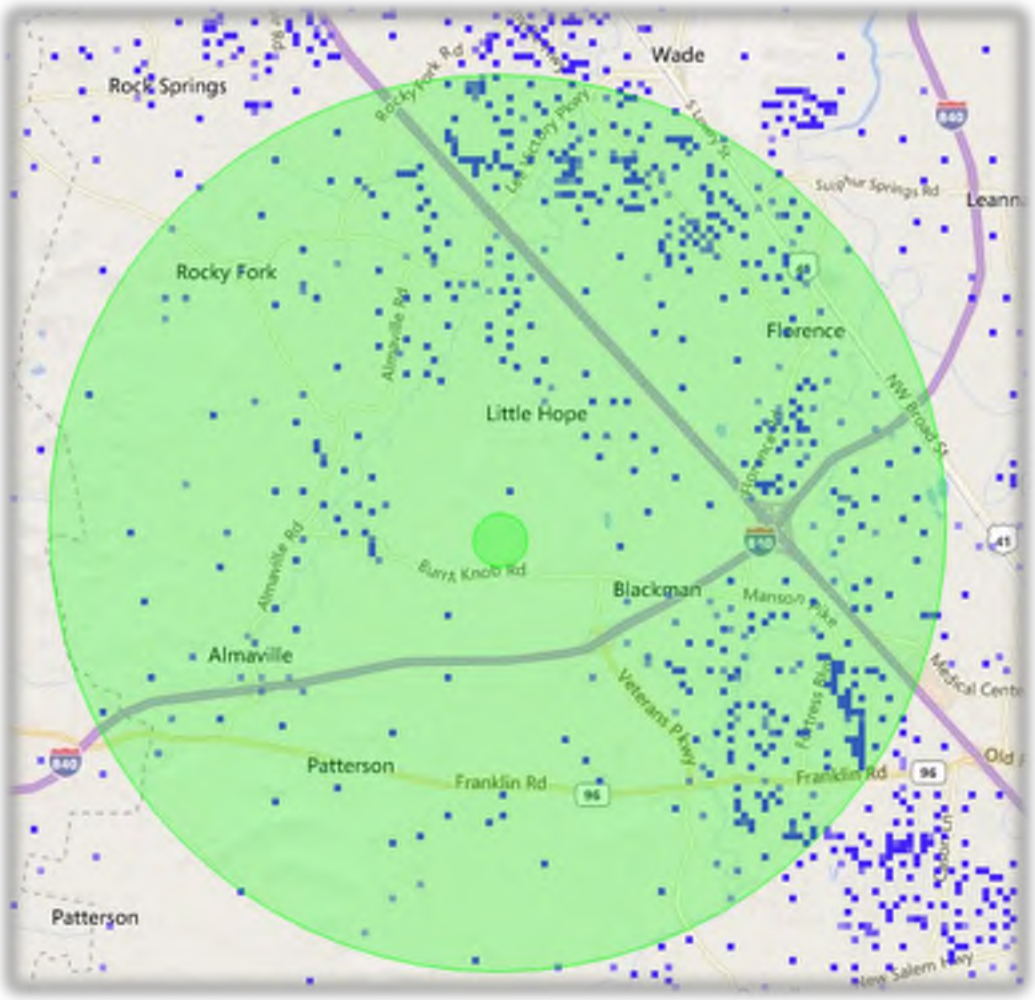
APPENDIX 1. MAP OF NATIONAL LIME & STONE QUARRY NEAR DELAWARE, OHIO

Notes: The small, inner green circle marks the National Lime & Stone Quarry near Delaware, Ohio. The larger green circle is a five-mile radius around the quarry location. The blue dots mark areas of population density using 2010 census data. Map generated using censusviewer.com.



APPENDIX 2. MAP OF ROGERS GROUP QUARRY NEAR MURFREESBORO, TENNESSEE

Notes: The small, inner green circle marks the Rogers Group Quarry near Murfreesboro, Tennessee. The larger green circle is a five-mile radius around the quarry location. The blue dots mark areas of population density using 2010 census data. Map generated using censusviewer.com.



APPENDIX 3. CENSUS BLOCK POPULATION GROWTH NEAR ROGERS GROUP QUARRY NEAR MURFREESBORO, TENNESSEE

Notes: Figures 3A-3C demonstrate population movements for Rutherford County, TN, with emphasis on the Rogers Group quarry. Population is measured using U.S. Census Bureau population data for years 2000, 2010, and 2016. Darker blues imply greater population.

Fig. 3A: Rutherford County, TN, 1990 Population Density

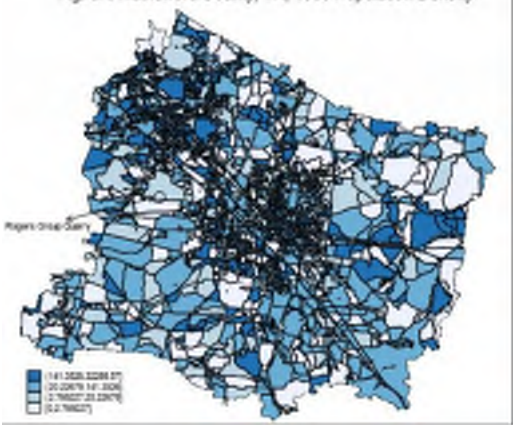


Fig. 3B: Rutherford County, TN 2000 Population Density

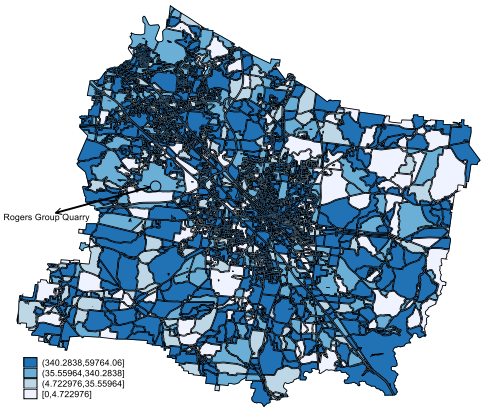
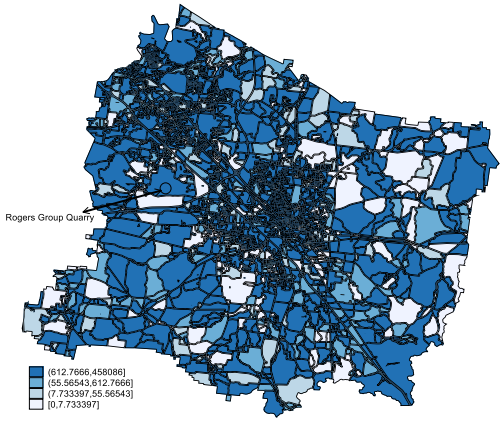
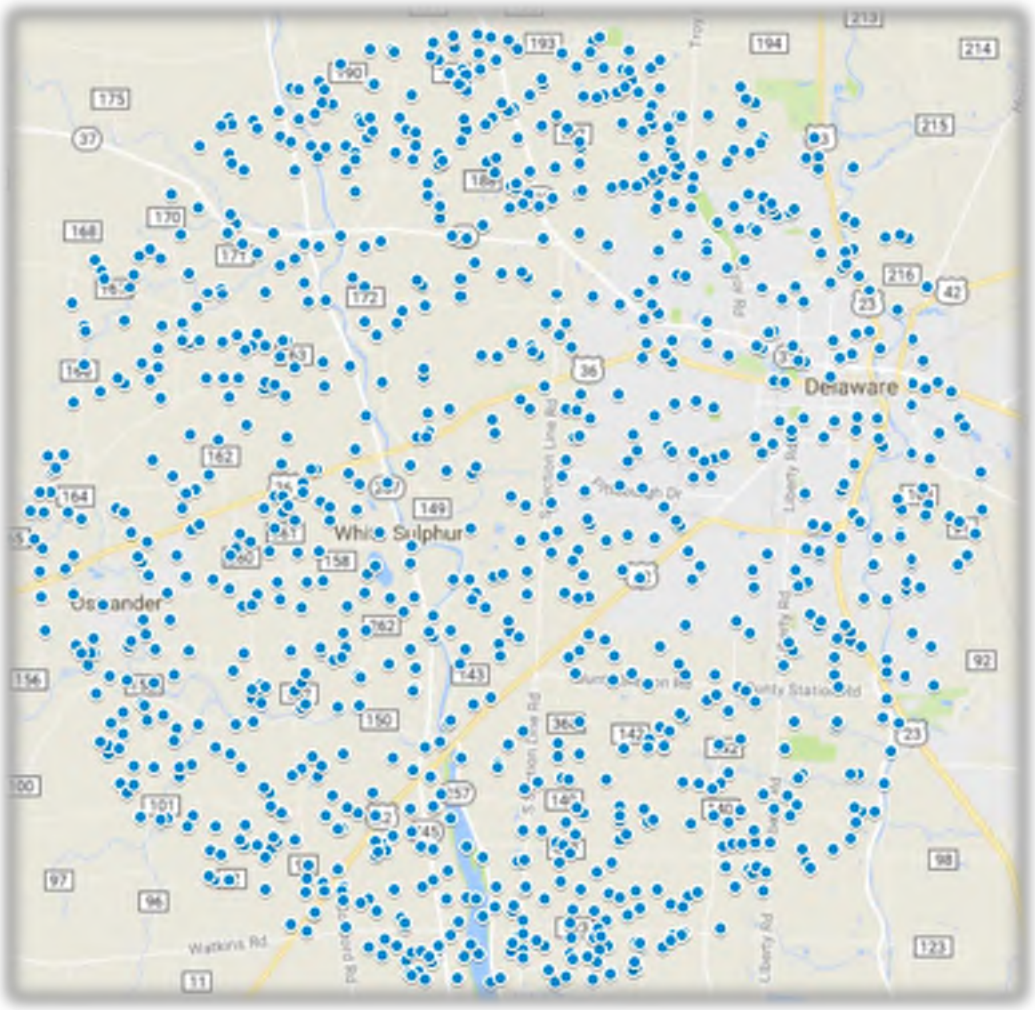


Fig. 3C: Rutherford County, TN 2010 Population Density



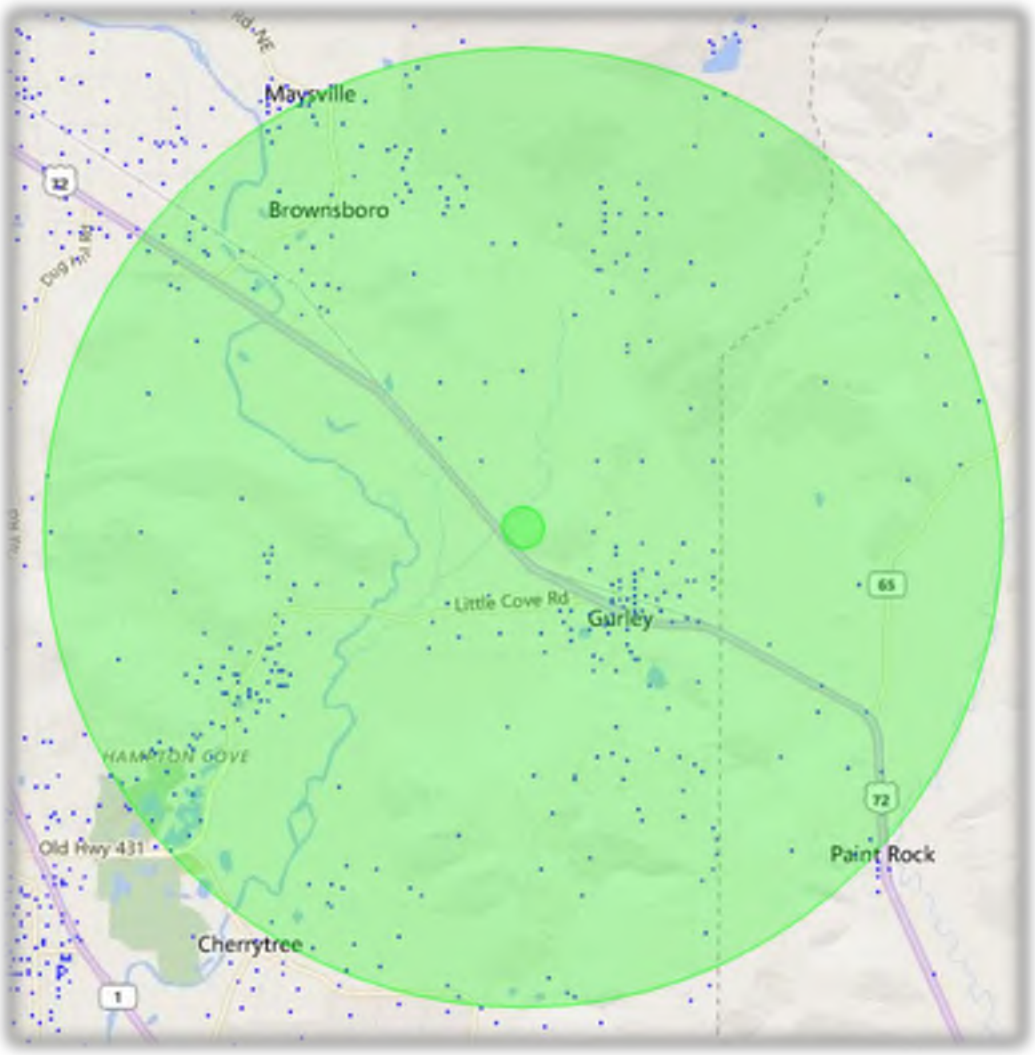
APPENDIX 4. ILLUSTRATIVE MAP OF RANDOM LOCATIONS USED FOR RANDOMIZED INFERENCE ANALYSIS FOR DELAWARE COUNTY

Notes: The blue dots represent the random locations chosen by the randomized inference simulation for Delaware County, Ohio. Map generated using Google maps.



APPENDIX 5. VULCAN QUARRY NEAR GURLEY, ALABAMA

Notes: The small, inner green circle markets the Vulcan Quarry near Gurley, Alabama. The larger green circle is a five-mile radius around the quarry location. The blue dots mark areas of population density using 2010 census data. Map generated using censusviewer.com.



APPENDIX 6. MAP OF AUSTIN QUARRY SITE IN MADERA COUNTY, CALIFORNIA

Notes: The green circle marks the site of the proposed Austin Quarry in Madera County, California. The immediate two areas of population to the South and West of the quarry site—marked in green rectangles—are the "treated" areas. The blue dots mark areas of population density using 2010 census data. The control group is chosen from areas further west and north of Highway 145 toward Madera. Map generated using censusviewer.com.

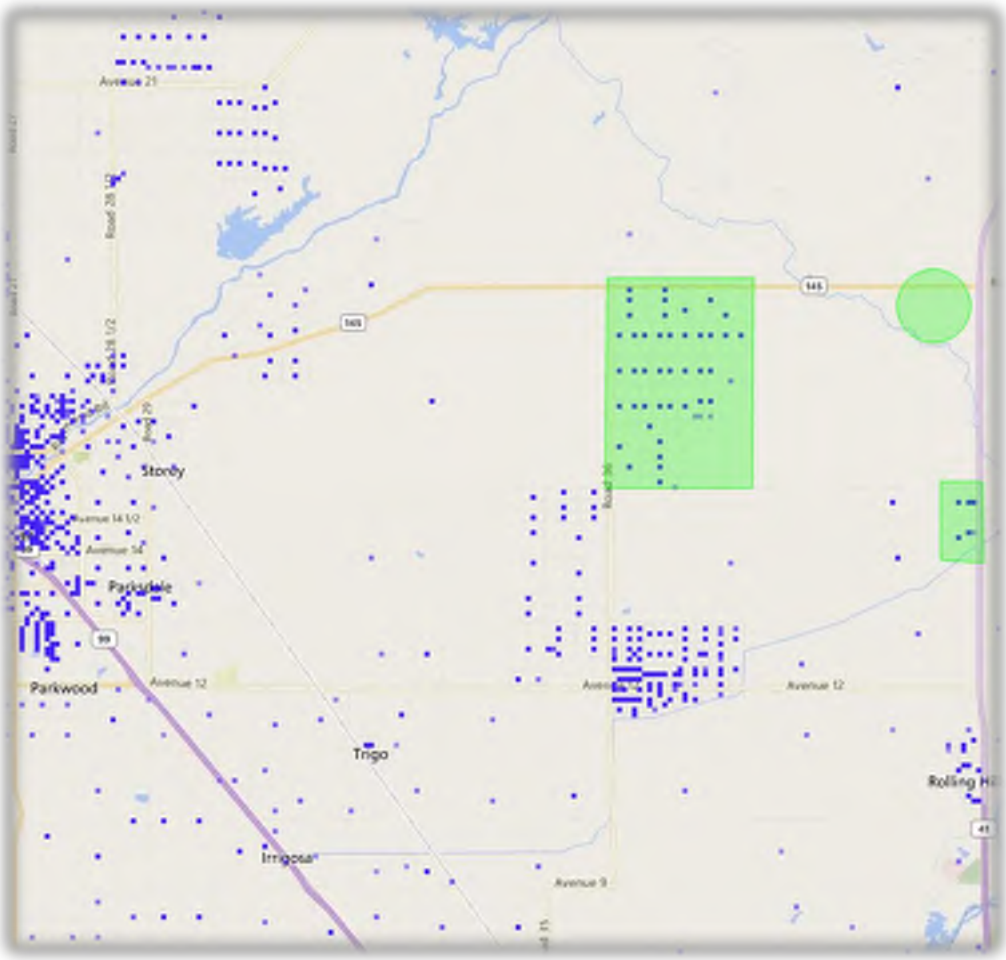


EXHIBIT 12

INDUSTRIAL HYGIENE EXPOSURE ASSESSMENT REPORT

EDW C. LEVY CO.
SELECT AGGREGATES FACILITIES
MICHIGAN

EnSafe Project Number
0888838821/001 and 002

Prepared for:

Edw C. Levy Co.
Select Aggregates Facilities
1642 Schaefer Highway
Dearborn, Michigan 48126

Monitoring Dates: August 28 through 30, October 24 and 25; and November 20, 2024
Report Date: January 20, 2025

Prepared by:

Jacob Rohling, *Industrial Hygienist*
Michael Przybylski, *Industrial Hygienist*

Reviewed by:

Robert J. Goodman CIH, CSP
Senior Project Manager

525 Vine Street, Suite 1755
Cincinnati, Ohio 45202
513-621-7233 | 800-588-7962
www.ensafe.com

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Attachment B Laboratory Analysis Reports
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ACRONYMS

The following are acronyms used in this report:

AL	Action Level
CFR	Code of Federal Regulations
LOQ	level of quantitation
µg/m^3	micrograms per cubic meter
mg/m^3	milligrams per cubic meter of air
MSHA	Mine Safety and Health Administration
OEL	occupational exposure limit
PEL	permissible exposure limit
TWA	time-weighted average (8-hour)

1.0 INTRODUCTION

EnSafe Inc. performed industrial hygiene exposure assessments at four Edw C. Levy Co. aggregates locations throughout Michigan on August 28 through 30, October 24 and 25; and November 20, 2024. Ms. Nicole Platt represented Edw C. Levy Co. and was EnSafe's main point of contact for the assessment.

EnSafe performed personal air monitoring for two, 4-day trips at the following Edw C. Levy Co. aggregates locations, as well as a 1-day trip follow-up to adapt to site routine operations:

- American Aggregates — Grange Hall Road
- Burroughs Materials — Hartland
- American Aggregates — Buno Plant

The objective of the assessments was to evaluate employee exposures to airborne contaminants from routine activities, during a typical shift, as part of Edw C. Levy Co.'s ongoing IH program.

EnSafe attempted to perform monitoring representative of full-shift exposures over the entire shift an approximate 10- or 12-hour period. Employee exposures over the time not monitored during the work shift were assumed to be similar to exposures within the monitoring period.

2.0 MONITORING OVERVIEW

EnSafe performed personal air monitoring for select compounds during the assessment. Table 1 details the monitoring performed.

Table 1
Air Monitoring Summary

Compound	Type Sample	Duration	Number of Samples
Respirable Particulates and Respirable Crystalline Silica	Personal	TWA	22

EnSafe performed personal air monitoring by clipping the filter/media assembly to the employee's collar for breathing zone collection. The sample media were immediately capped following use and shipped for analysis to SGS Galson Laboratories (Galson) of East Syracuse, New York. Galson is accredited by the American Industrial Hygiene Association to analyze a variety of IH samples.

2.1 Occupational Exposure Limits

Based on the MSHA classification of the aggregates facilities assessed, the air monitoring results for respirable particulates and respirable crystalline silica were compared to the published OELs as described in Table 2.

Table 2
Occupational Exposure Limits

OEL Agency	OEL Name	OEL Type	Duration
MSHA	PEL	Regulatory	8-hour TWA

2.2 Calibration Data

EnSafe performed pre- and post-calibration of the personal air monitoring pumps, using the following calibrator:

Make	Model	Serial Number	Date Factory Calibrated
SKC	chek-mate	23555127	12/5/2023

2.3 Environmental Observations

The following environmental conditions were observed:

Date	Location	Airborne Dust Observed?	Temperature (°F)	Weather Conditions	Rainfall Amount (inches)
09/28/2024	American Aggregates — Grange Hall Road	No	76	Cloudy, winds <10 mph	0.38
09/29/2024	Burroughs Materials — Hartland	No	70	Cloudy, winds <10 mph	0.36
09/30/2024	American Aggregates — Buno Plant	No	75	Cloudy, winds <15 mph	0.00
10/24/2024	American Aggregates — Grange Hall Road	No	43	Cloudy, winds <10 mph	0.00
10/25/2024	Burroughs Materials — Hartland	No	49	Cloudy, winds <15 mph	0.01
11/20/2024	American Aggregates — Buno Plant	No	43	Cloudy, winds <25 mph	0.18

Notes:
°F = degree Fahrenheit
mph = miles per hour

3.0 RESULTS AND CONCLUSIONS

A summary of the air monitoring results including comparison to the applicable MSHA PELs is included in Attachment A. The laboratory analysis reports, for samples submitted to the laboratory,

are provided in Attachment B and include the specific monitoring method utilized for analysis. A discussion of the compounds sampled and the results, are provided below.

3.1 Respirable Particulates

EnSafe collected 22 personal TWA samples for respirable particulates exposure for comparison to the MSHA PEL. The TWA exposures ranged from <0.033 mg/m^3 (Grange Hall Road — pit loader) to 0.11 mg/m^3 (Grange Hall Road — ground man). The results were below the MSHA PEL of 5 mg/m^3.

3.2 Respirable Crystalline Silica

EnSafe collected 37 personal TWA samples for respirable crystalline silica exposure for comparison to the MSHA PEL. The TWA exposures ranged from <5.1 µg/m^3 (several job titles from Grange Hall Road, Hartland, and Buno Plant) to 16 µg/m^3 (Buno Plant — quality control technician). The results were below the MSHA PEL of 50 µg/m^3.

4.0 RECOMMENDATIONS

4.1 Air Monitoring Recommendations

EnSafe recommends the following general recommendations for personal air monitoring results as a percentage of the referenced OEL (see Attachment A).

Air Monitoring General Recommendations		
Shading	**Description**	**Recommended Action**
	Result <10% of OEL; or below LOQ	Continue routine periodic monitoring (6-month frequency) MSHA 30 CFR Section 60.12 (c) and (d)
	Result ≥10% but <50% of OEL	Continue routine periodic monitoring (6-month frequency) MSHA 30 CFR Section 60.12 (c) and (d)
	Result ≥50% of OEL, but ≤OEL	Resample within 3 months in accordance with MSHA 30 CFR Section 60.12 (a)
	Result >OEL	• Investigate elevated exposure and corrective actions. • Report results above the PEL to the MSHA district manager. • Resample within 3 months in accordance with MSHA 30 CFR Section 60.12 (b)

4.2 Employee Notification of Results

Employees who participated in this assessment, and other employees with the potential for similar exposures, should be notified of the results. Notification can be made either individually in writing

or by posting the results in an appropriate location accessible to employees. The results should also be discussed in safety meetings. A health hazard discussion should be part of the facility's ongoing Hazard Communication Program. Attachment C contains the employee notification letters provided for your convenience with notifying employees of their results.

For employees whose exposures are represented by the monitoring results for respirable crystalline silica, employee notification must be in accordance with MSHA 30 CFR Section 60.12 (g).

4.3 Record Retention of Exposure Monitoring Results

Air monitoring reports must be retained at the facility as an exposure record for at least 5 years in accordance with MSHA 30 CFR Section 60.16.

5.0 DISCLAIMER

This report is for the sole use of Edw C. Levy Co. Use of this report by any other party will be at such party's sole risk, and EnSafe disclaims liability for any such use or reliance by third parties. The results presented in this report are indicative of conditions at the time of the assessment. This study does not purport to include every safety or health hazard at this location, and only those areas and exposures specifically mentioned were evaluated. EnSafe disclaims liability for Edw C. Levy Co.'s safety beyond the content of this report. EnSafe prepared this report based upon the direction and information provided by Edw C. Levy Co. and shall not assume responsibility for misinformation that EnSafe could not reasonably determine was incorrect at the time of the performance of work.

Attachment A
Air Monitoring Results

Attachment A-1 — Personal Air Monitoring Results
Edw C. Levy Co. — American Aggregates Grange Hall Road — Holly, Michigan

Employee Name	Work Area	Job Title	Shift Length (hours)	Sample Date	Sample ID	Sample Length (minutes)	Analyte	If below LOQ "<"	Sample Result	OEL (may be adjusted if shift >8 hrs.)	Units	OEL (%)	OEL Reference	Sample Duration	Personal Protective Equipment	Field Notes
Ryan Coleman	Quarry	Dredge Operator	12	8/28/2024	24-0241946	546	Respirable Crystalline Silica	<	**5.2**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves	During the sampling period, the employee operated the open-cab dredge. The employee spent approximately 45 minutes outside of the cab completing routine checks.
							Respirable Particulates	<	**0.046**	5	mg/m³	---	MSHA	TWA		
Ricky Shinavier	Quarry	Plant Operator	12	8/28/2024	24-0241947	615	Respirable Crystalline Silica		**5.2**	50	µg/m³	**10%**	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves	During the sampling period, the employee reported six hours of plant downtime due to a storm the previous night. The employee completed start-up and maintenance tasks.
							Respirable Particulates	<	**0.040**	5	mg/m³	---	MSHA	TWA		
Zachary Coreschi	Quarry	Pit Loader	12	8/28/2024	24-0241933	737	Respirable Crystalline Silica	<	**5.1**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves	During the sampling period, the employee operated a closed-cab pit loader to move and stockpile materials. The employee reported operating the water truck for approximately 40 minutes.
							Respirable Particulates	<	**0.033**	5	mg/m³	---	MSHA	TWA		
Jordan Heinz	Quarry	Shipping Loader	12	8/28/2024	24-0241943	601	Respirable Crystalline Silica	<	**5.2**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves	During the sampling period, the employee operated a closed-cab loader to stockpile aggregate material. The employee also loaded trucks periodically throughout the shift.
							Respirable Particulates	<	**0.041**	5	mg/m³	---	MSHA	TWA		
Kandice Hill	Quarry	Quality Control Technician	10	8/28/2024	24-0241944	532	Respirable Crystalline Silica		**7.5**	50	µg/m³	**15%**	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves	During the sampling period, the employee collected and processed four samples. Processing includes washing, weighing and sieving material.
							Respirable Particulates		**0.059**	5	mg/m³	**1.2%**	MSHA	TWA		
Chase Veres	Quarry	Ground Man	12	8/28/2024	24-0241931	706	Respirable Crystalline Silica	<	**5.1**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves	During the sampling period, the employee completed maintenance on the stacker, dredge, and all loading equipment. The employee also operated a loader for approximately 3 hours, stockpiling material.
							Respirable Particulates	<	**0.035**	5	mg/m³	---	MSHA	TWA		
Ryan Coleman	Quarry	Dredge Operator	12	10/24/2024	24-0241979	712	Respirable Crystalline Silica	<	**5.1**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves	During the sampling period, the employee completed start-up tasks and fueled the dredge. The employee operated the dredge from inside a control room.
							Respirable Particulates		**0.036**	5	mg/m³	**0.7%**	MSHA	TWA		
Earl Studer	Quarry	Plant Operator	12	10/24/2024	24-0241995	716	Respirable Crystalline Silica	<	**5.1**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves	During the sampling period, the employee spent approximately half the shift in a closed control room. The employee reported spending approximately 6 hours performing belt maintenance and using water to clean equipment.
							Respirable Particulates	<	**0.034**	5	mg/m³	---	MSHA	TWA		
Zachary Coreschi	Quarry	Pit Loader	12	10/24/2024	24-0241993	711	Respirable Crystalline Silica	<	**5.1**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves	During the sampling period, the employee operated a closed-cab pit loader to move and stockpile materials. The employee reported operating the water truck for approximately 40 minutes.
							Respirable Particulates	<	**0.034**	5	mg/m³	---	MSHA	TWA		
Jordan Heinz	Quarry	Shipping Loader	12	10/24/2024	24-0241982	718	Respirable Crystalline Silica	<	**5.1**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves	During the sampling period, the employee operated a closed-cab loader to stockpile aggregate material. The employee also loaded trucks periodically throughout the shift.
							Respirable Particulates	<	**0.034**	5	mg/m³	---	MSHA	TWA		
Ricky Shinavier	Quarry	Ground Man	12	10/24/2024	24-0241992	723	Respirable Crystalline Silica		**14**	50	µg/m³	**28%**	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves	During the sampling period, the employee spent approximately 5 hours repairing belts. The employee also stated they moved site assets and completed routine equipment checks throughout the shift.
							Respirable Particulates		**0.11**	5	mg/m³	**2.2%**	MSHA	TWA		
Hunter Raymond	Quarry	Quality Control Technician	10	10/24/2024	24-0241990	343	Respirable Crystalline Silica	<	**5.1**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves	During the sampling period, the employee reported collecting samples at the grange hall road and holly plant locations and analyzing the samples at the holly plant quality laboratory.
							Respirable Particulates	<	**0.071**	5	mg/m³	---	MSHA	TWA		

Result <10% of OEL (or AL if applicable); or if "---", below LOQ
Result ≥10% but <50% of OEL (or AL)
Result ≥50% of OEL (or AL), but ≤OEL
Result >OEL

Calibrator Information
Make/Model: SKC Chek-mate
Serial Number: 23555127
Calibration Date: 12/5/2023

Attachment A-2 — Personal Air Monitoring Results
Edw C. Levy Co. — Burroughs Materials — Hartland, Michigan

Employee Name	Work Area	Job Title	Shift Length (hours)	Sample Date	Sample ID	Sample Length (minutes)	Analyte	If below LOQ "<"	Sample Result	OEL (may be adjusted if shift >8 hrs.)	Units	OEL (%)	OEL Reference	Sample Duration	Personal Protective Equipment	Field Notes
Gene Wedenstorer	Quarry	Loader Operator	12	8/29/2024	24-0241928	674	Respirable Crystalline Silica	<	**5.1**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves	During the sampling period, the employee operated the dredge and completed routine start-up tasks. The employee occasionally completed routine checks outside of the dredge control cab.
							Respirable Particulates	<	**0.036**	5	mg/m³	---	MSHA	TWA		
Jamie Kangas	Quarry	Loader Operator	12	8/29/2024	24-0241938	682	Respirable Crystalline Silica	<	**5.2**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves	During the sampling period, the employee operated a closed-cab loader to stockpile wet dredge. The employee also loaded customer trucks with material.
							Respirable Particulates		**0.042**	5	mg/m³	**0.8%**	MSHA	TWA		
Brett Miller	Quarry	Loader Operator	10	11/20/2024	24-0241983	564	Respirable Crystalline Silica	<	**5.1**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves	During the sampling period, the employee operated the dredge and completed routine start-up tasks. The employee occasionally completed routine checks outside of the dredge control cab.
							Respirable Particulates	<	**0.043**	5	mg/m³	---	MSHA	TWA		
Jamie Kangas	Quarry	Loader Operator	10	11/20/2024	24-0241994	555	Respirable Crystalline Silica	<	**5.2**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves	During the sampling period, the employee operated a closed-cab loader to stockpile wet dredge.
							Respirable Particulates	<	**0.045**	5	mg/m³	---	MSHA	TWA		

Result <10% of OEL (or AL if applicable); or if "---", below LOQ
Result ≥10% but <50% of OEL (or AL)
Result ≥50% of OEL (or AL), but ≤OEL
Result >OEL

Calibrator Information
Make/Model: SKC Chek-mate
Serial Number: 23555127
Calibration Date: 12/5/2023

Attachment A-3 — Personal Air Monitoring Results
Edw C. Levy Co. — American Aggregates Buno Plant — Milford, Michigan

Employee Name	Work Area	Job Title	Shift Length (hours)	Sample Date	Sample ID	Sample Length (minutes)	Analyte	If below LOQ "<"	Sample Result	OEL (may be adjusted if shift >8 hrs.)	Units	OEL (%)	OEL Reference	Sample Duration	Personal Protective Equipment	Field Notes
Brett Miller	Quarry	Pit Loader	12	8/30/2024	24-0241939	613	Respirable Crystalline Silica	<	**6.1**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves	During the sampling period, the employee spent approximately 3 hours moving the mobile plant and completing all start-up tasks. The employee operated a closed-cab loader for the remaining portion of the shift.
							Respirable Particulates	<	**0.040**	5	mg/m³	---	MSHA	TWA		
Ted Bauer	Quarry	Shipping Loader	12	8/30/2024	24-0241945	622	Respirable Crystalline Silica	<	**5.2**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves	During the sampling period, the employee operated a closed-cab loader to load trucks for customers.
							Respirable Particulates	<	**0.040**	5	mg/m³	---	MSHA	TWA		
Dante Ball	Quarry	Quality Control Technician	12	8/30/2024	24-0241932	588	Respirable Crystalline Silica		**16**	50	µg/m³	**32%**	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves	During the sampling period, the employee collected 6 samples. The samples were handled, washed, sieved and weighed during analysis.
							Respirable Particulates		**0.072**	5	mg/m³	**1.4%**	MSHA	TWA		
Brett Miller	Quarry	Pit Loader	12	10/25/2024	24-0241981	610	Respirable Crystalline Silica		**12**	50	µg/m³	**24%**	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves	During the sampling period, the employee fed the plant hopper from the inside of a closed-cab loader. The employee also completed all start-up and shutdown tasks at the plant.
							Respirable Particulates		**0.077**	5	mg/m³	**1.5%**	MSHA	TWA		
Gene Wadenstorer	Quarry	Shipping Loader	12	10/25/2024	24-0241985	610	Respirable Crystalline Silica		**14**	50	µg/m³	**28%**	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves	During the sampling period, the employee operated a closed-cab loader to load trucks for customers.
							Respirable Particulates		**0.078**	5	mg/m³	**1.6%**	MSHA	TWA		
Dante Ball	Quarry	Quality Control Technician	12	10/25/2024	24-0241997	632	Respirable Crystalline Silica	<	**5.1**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves	During the sampling period, the employee collected 8 samples. The samples were handled, washed, sieved and weighed during analysis.
							Respirable Particulates	<	**0.039**	5	mg/m³	---	MSHA	TWA		

Result <10% of OEL (or AL if applicable); or if "---", below LOQ
Result ≥10% but <50% of OEL (or AL)
Result ≥50% of OEL (or AL), but ≤OEL
Result >OEL

Calibrator Information
Make/Model: SKC Chek-mate
Serial Number: 23555127
Calibration Date: 12/5/2023

Attachment B
Laboratory Analysis Reports

SGS GALSON

Mr. Mike Przybylski
EnSafe, Inc.
525 Vine Street
Suite 1755
Cincinnati, OH 45202

September 11, 2024

Account# 13497

Login# L636503

Dear Mike Przybylski:

Enclosed are the analytical results for the samples received by our laboratory on September 04, 2024. All samples on the chain of custody were received in good condition unless otherwise noted. Any additional observations will be noted on the chain of custody.

Please contact client services at (888) 432-5227 if you would like any additional information regarding this report. Thank you for using SGS Galson.

Sincerely,

SGS Galson

Lisa Swab

Lisa Swab
Laboratory Director

Enclosure(s)

Terms and Conditions & General Disclaimers

- This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

- Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Analytical Disclaimers

- Unless otherwise noted within the report, all quality control results associated with the samples were within established control limits or did not impact reported results.

- Note: The findings recorded within this report were drawn from analysis of the sample(s) provided to the laboratory by the Client (or a third party acting at the Client's direction). The laboratory does not have control over the sampling process, including but not limited to the use of field equipment and collection media, as well as the sampling duration, collection volume or any other collection parameter used by the Client. The findings herein constitute no warranty of the sample's representativeness of any sampled environment, and strictly relate to the samples as they were presented to the laboratory. For recommended sampling collection parameters, please refer to the Sampling and Analysis Guide at www.sgsgalson.com.

- Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceding the final result column may have been rounded and therefore, if carried through the calculations, may not yield an identical final result to the one reported.

- The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).

- Unless otherwise noted within the report, results have not been blank corrected for any field blank or method blank data.

Accreditations SGS Galson holds a variety of accreditations and recognitions. Our quality management system conforms with the requirements of ISO/IEC 17025. Where applicable, samples may also be analyzed in accordance with the requirements of ELAP, NELAC, or LELAP under one of the state accrediting bodies listed below. Current Scopes of Accreditation can be viewed at http://www.sgsgalson.com in the accreditations section of the "About" page. To determine if the analyte tested falls under our scope of accreditation, please visit our website or call Client Services at (888) 432-5227.

National/International	Accreditation/Recognition	Lab ID#	Program/Sector
AIHA-LAP, LLC - IHLAP, ELLAP, EMLAP	ISO/IEC 17025 and USEPA NLLAP	Lab ID 100324	Industrial Hygiene, Environmental Lead, Environmental Microbiology

State	Accreditation/Recognition	Lab ID#	Program/Sector
New York (NYSDOH)	ELAP and NELAC (TNI)	Lab ID: 11626	Air Analysis, Solid and Hazardous Waste
Louisiana (LDEQ)	LELAP	Lab ID: 04083	Air Analysis, Solid Chemical Materials

Legend

< - Less than	mg - Milligrams	MDL - Method Detection Limit	ppb - Parts per Billion
> - Greater than	ug - Micrograms	NA - Not Applicable	ppm - Parts per Million
l - Liters	m3 - Cubic Meters	NS - Not Specified	ppbv - ppb Volume
LOQ - Limit of Quantitation	kg - Kilograms	ND - Not Detected	ppmv - ppm Volume
ft2 - Square Feet	cm2 - Square Centimeters	in2 - Square Inches	ng - Nanograms

SGS GALSON

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East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.sgsgalson.com

LABORATORY ANALYSIS REPORT

Client : EnSafe
Site : Edward C. Levy
Project No. : 0888838821-001
Date Sampled : 27-AUG-24 - 30-AUG-24
Date Received : 04-SEP-24

Account No.: 13497
Login No. : L636503

Date Analyzed : 06-SEP-24
Report ID : 1445668

Respirable Dust

Sample ID	Lab ID	Air Vol liter	Total mg	Conc mg/m3
24-0241946	L636503-9	1095.276	<0.050	<0.046
24-0241947	L636503-10	1250.295	<0.050	<0.040
24-0241933	L636503-11	1503.48	<0.050	<0.033
24-0241943	L636503-12	1211.015	<0.050	<0.041
24-0241944	L636503-13	1070.916	0.063	0.059
24-0241931	L636503-14	1433.18	<0.050	<0.035
24-0241928	L636503-15	1371.59	<0.050	<0.036
24-0241938	L636503-16	1370.82	0.057	0.042

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of Quantitation: 0.050 mg
Analytical Method : mod. NIOSH 0600; Gravimetric
Collection Media : PVC PW 37mm

Submitted by: HVN
Date : 11-SEP-24
Supervisor : HVN

Approved by: CMP

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LABORATORY ANALYSIS REPORT

Client : EnSafe
Site : Edward C. Levy
Project No. : 0888838821-001
Date Sampled : 27-AUG-24 - 30-AUG-24
Date Received : 04-SEP-24

Account No.: 13497
Login No. : L636503

Date Analyzed : 06-SEP-24
Report ID : 1445668

Respirable Dust

Sample ID	Lab ID	Air Vol liter	Total mg	Conc mg/m3
24-0241939	L636503-17	1247.455	<0.050	<0.040
24-0241945	L636503-18	1250.842	<0.050	<0.040
24-0241932	L636503-19	1194.228	0.086	0.072
24-0241927	L636503-20	NA	<0.050	NA

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of Quantitation: 0.050 mg
Analytical Method : mod. NIOSH 0600; Gravimetric
Collection Media : PVC PW 37mm

Submitted by: HVN
Date : 11-SEP-24
Supervisor : HVN

Approved by: CMP

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LABORATORY ANALYSIS REPORT

Client : EnSafe
Site : Edward C. Levy
Project No. : 0888838821-001
Date Sampled : 27-AUG-24 - 30-AUG-24
Date Received : 04-SEP-24

Account No.: 13497
Login No. : L636503

Date Analyzed : 06-SEP-24 - 11-SEP-24
Report ID : 1446541

Respirable Crystalline Silica (RCS): Quartz

Sample ID	Lab ID	Analyte	Air Vol l	ug	ug/m3	ug/m3 as 8-hr TWA
24-0241946	L636503-9	Quartz	1095.276	<5.0	<4.6	<5.2
		Cristobalite	NA	NA	NA	NA
		Tridymite	NA	NA	NA	NA
		RCS	1095.276	<5.0	<4.6	<5.2

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of quantitation: Q:5.0ug
Analytical Method : mod. NIOSH 7500/mod. OSHA ID-142; XRD
Collection Media : PVC PW 37mm

Submitted by: JSC
Date : 11-SEP-24
Supervisor : AFB

Approved by: NLO

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LABORATORY ANALYSIS REPORT

Client : EnSafe
Site : Edward C. Levy
Project No. : 0888838821-001
Date Sampled : 27-AUG-24 - 30-AUG-24
Date Received : 04-SEP-24

Account No.: 13497
Login No. : L636503

Date Analyzed : 06-SEP-24 - 11-SEP-24
Report ID : 1446541

Respirable Crystalline Silica (RCS): Quartz

Sample ID	Lab ID	Analyte	Air Vol l	ug	ug/m3	ug/m3 as 8-hr TWA
24-0241947	L636503-10	Quartz	1250.295	5.1	4.1	5.2
		Cristobalite	NA	NA	NA	NA
		Tridymite	NA	NA	NA	NA
		RCS	1250.295	5.1	4.1	5.2
24-0241933	L636503-11	Quartz	1503.48	<5.0	<3.3	<5.1
		Cristobalite	NA	NA	NA	NA
		Tridymite	NA	NA	NA	NA
		RCS	1503.48	<5.0	<3.3	<5.1
24-0241943	L636503-12	Quartz	1211.015	<5.0	<4.1	<5.2
		Cristobalite	NA	NA	NA	NA
		Tridymite	NA	NA	NA	NA
		RCS	1211.015	<5.0	<4.1	<5.2

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of quantitation: Q:5.0ug
Analytical Method : mod. NIOSH 7500/mod. OSHA ID-142; XRD
Collection Media : PVC PW 37mm

Submitted by: JSC
Date : 11-SEP-24
Supervisor : AFB

Approved by: NLO

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LABORATORY ANALYSIS REPORT

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Site : Edward C. Levy
Project No. : 0888838821-001
Date Sampled : 27-AUG-24 - 30-AUG-24
Date Received : 04-SEP-24

Account No.: 13497
Login No. : L636503

Date Analyzed : 06-SEP-24 - 11-SEP-24
Report ID : 1446541

Respirable Crystalline Silica (RCS): Quartz

Sample ID	Lab ID	Analyte	Air Vol l	ug	ug/m3	ug/m3 as 8-hr TWA
24-0241944	L636503-13	Quartz	1070.916	7.3	6.8	7.5
		Cristobalite	NA	NA	NA	NA
		Tridymite	NA	NA	NA	NA
		RCS	1070.916	7.3	6.8	7.5
24-0241931	L636503-14	Quartz	1433.18	<5.0	<3.5	<5.1
		Cristobalite	NA	NA	NA	NA
		Tridymite	NA	NA	NA	NA
		RCS	1433.18	<5.0	<3.5	<5.1
24-0241928	L636503-15	Quartz	1371.59	<5.0	<3.6	<5.1
		Cristobalite	NA	NA	NA	NA
		Tridymite	NA	NA	NA	NA
		RCS	1371.59	<5.0	<3.6	<5.1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of quantitation: Q:5.0ug
Analytical Method : mod. NIOSH 7500/mod. OSHA ID-142; XRD
Collection Media : PVC PW 37mm

Submitted by: JSC
Date : 11-SEP-24
Supervisor : AFB

Approved by: NLO

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LABORATORY ANALYSIS REPORT

Client : EnSafe
Site : Edward C. Levy
Project No. : 0888838821-001
Date Sampled : 27-AUG-24 - 30-AUG-24
Date Received : 04-SEP-24

Account No.: 13497
Login No. : L636503

Date Analyzed : 06-SEP-24 - 11-SEP-24
Report ID : 1446541

Respirable Crystalline Silica (RCS): Quartz

Sample ID	Lab ID	Analyte	Air Vol l	ug	ug/m3	ug/m3 as 8-hr TWA
24-0241938	L636503-16	Quartz	1370.82	<5.0	<3.6	<5.2
		Cristobalite	NA	NA	NA	NA
		Tridymite	NA	NA	NA	NA
		RCS	1370.82	<5.0	<3.6	<5.2
24-0241939	L636503-17	Quartz	1247.455	<6.0	<4.8	<6.1
		Cristobalite	NA	NA	NA	NA
		Tridymite	NA	NA	NA	NA
		RCS	1247.455	<6.0	<4.8	<6.1
24-0241945	L636503-18	Quartz	1250.842	<5.0	<4.0	<5.2
		Cristobalite	NA	NA	NA	NA
		Tridymite	NA	NA	NA	NA
		RCS	1250.842	<5.0	<4.0	<5.2

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of quantitation: Q:5.0ug
Analytical Method : mod. NIOSH 7500/mod. OSHA ID-142; XRD
Collection Media : PVC PW 37mm

Submitted by: JSC
Date : 11-SEP-24
Supervisor : AFB

Approved by: NLO

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LABORATORY ANALYSIS REPORT

Client : EnSafe
Site : Edward C. Levy
Project No. : 0888838821-001
Date Sampled : 27-AUG-24 - 30-AUG-24
Date Received : 04-SEP-24

Account No.: 13497
Login No. : L636503

Date Analyzed : 06-SEP-24 - 11-SEP-24
Report ID : 1446541

Respirable Crystalline Silica (RCS): Quartz

Sample ID	Lab ID	Analyte	Air Vol l	ug	ug/m3	ug/m3 as 8-hr TWA
24-0241932	L636503-19	Quartz	1194.228	16	13	16
		Cristobalite	NA	NA	NA	NA
		Tridymite	NA	NA	NA	NA
		RCS	1194.228	16	13	16
24-0241927	L636503-20	Quartz	NA	<5.0	NA	NA
		Cristobalite	NA	NA	NA	NA
		Tridymite	NA	NA	NA	NA
		RCS	NA	<5.0	NA	NA

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of quantitation: Q:5.0ug
Analytical Method : mod. NIOSH 7500/mod. OSHA ID-142; XRD
Collection Media : PVC PW 37mm

Submitted by: JSC
Date : 11-SEP-24
Supervisor : AFB

Approved by: NLO

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LABORATORY FOOTNOTE REPORT

Client Name : EnSafe
Site : Edward C. Levy
Project No. : 0888838821-001

Date Sampled : 27-AUG-24 - 30-AUG-24 Account No.: 13497
Date Received: 04-SEP-24 Login No. : L636503
Date Analyzed: 06-SEP-24 - 11-SEP-24

L636503 (Report ID: 1445668):
SOPs: GRAV-SOP-6(28), GRAV-SOP-5(35)

L636503 (Report ID: 1445668):
Accuracy and mean recovery data presented below is based on a 95% confidence interval (k=2). The estimated accuracy applies to the media, technology, and SOP referenced in this report and does not account for the uncertainty associated with the sampling process. The accuracy is based solely on spike recovery data from internal quality control samples. Where N/A appears below, insufficient data is available to provide statistical accuracy and mean recovery values for the associated analyte.

Parameter	Accuracy	Mean Recovery
Respirable Dust	+/-7.1%	106%

L636503 (Report ID: 1446541):
The reported RCS value is based on recoveries of silica polymorphs (Quartz, Cristobalite, and/or Tridymite) greater than the reporting level. The presence of silica below the reporting level cannot be ruled out. When all polymorph results are below the reporting level, RCS defaults to the lowest polymorph concentration. The calibration standard used for Tridymite analysis is not NIST traceable; however, when Tridymite is detected above the reporting level, it is included in the RCS calculation.
SOPs: ix-calibrate(19), ix-xrdreview(23), ix-xrdashprep(50), ix-xrdstdprep(39)
The MSHA calculations are based solely on the analysis of the silica polymorphs which were requested for analysis and does not rule out the possible presence of silica polymorphs which were not requested. The 8-hour TWA value is always normalized to a period of 480 minutes regardless of the total sampling time.
TWA = Time Weighted Average
RCS = Respirable Crystalline Silica
We perform a quantitative secondary angle confirmation on all Quartz results greater than 0.025 mg. Secondary angle quantitative confirmation is not possible below 0.025 mg.

L636503-19 (Report ID: 1446541):
We were able to confirm Quartz qualitatively using the secondary angle.

L636503-2 (Report ID: 1446541):
During sample preparation for Silica analysis, larger particles in the sample did not break apart to form an uniform deposit. It is possible that large particulate was not included in the analysis. The impact on reported Silica results is unknown.

L636503-17 (Report ID: 1446541):
Elevated Quartz reporting limit due to matrix interference.

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LABORATORY FOOTNOTE REPORT

Client Name : EnSafe
Site : Edward C. Levy
Project No. : 0888838821-001

Date Sampled : 27-AUG-24 - 30-AUG-24 Account No.: 13497
Date Received: 04-SEP-24 Login No. : L636503
Date Analyzed: 06-SEP-24 - 11-SEP-24

L636503 (Report ID: 1446541):

Accuracy and mean recovery data presented below is based on a 95% confidence interval (k=2). The estimated accuracy applies to the media, technology, and SOP referenced in this report and does not account for the uncertainty associated with the sampling process. The accuracy is based solely on spike recovery data from internal quality control samples. Where N/A appears below, insufficient data is available to provide statistical accuracy and mean recovery values for the associated analyte.

Parameter	Accuracy	Mean Recovery
Quartz	+/-13.7%	89.7%

818409590302
Date:09/04/24
Shipper:FEDEX
Initials:MMM
Prep:UNKNOWN

L636503

102, 104

CHAIN OF CUSTODY

☒	Standard	0%
☐	4 Business Days	35%
☐	3 Business Days	50%
☐	2 Business Days	75%
☐	Next Day by 6pm	100%
☐	Next Day by Noon	150%
☐	Same Day	200%

Acct No.: 13497

Original Prep No.:

Online COC No.: 304727

Report To: Mr. Mike Przybylski
Company Name: EnSafe, Inc.
Address 1: 525 Vine Street
Address 2: Suite 1755
City, State Zip: Cincinnati, OH 45202
Phone No.: 513-621-7233
Cell No.: 513-236-6466
Email reports to: mprzybylski@ensafe.com, ihlab@ensafe.com, tonya.lancaster@sgs.com, bgoodman@ensafe.com, jrohling@ensafe.com
Email EDD to: mprzybylski@ensafe.com, ihlab@ensafe.com, tonya.lancaster@sgs.com, bgoodman@ensafe.com
Comments:

Invoice To: Accounts Payable
Company Name: EnSafe-MEMPHIS, TN
Address 1: 5724 Summer Trees Drive
Address 2:
Company Name: Memphis, TN 38134
Phone No.: 901-372-7962
Email Address: accountspayable@ensafe.com
Comments:

P.O. No.:

Payment info.: ☐ I will call SGS to provide credit card info
☐ Card on File (enter the last five digits on the line below)

Comments:

State Sampled: Michigan
☒ MSHA

Site Name:	Project:	Sampled By:	List description of industry or Processes/Interfaces present in sampling area:
Edward C. Levy	0888838821-001	Jacob Rohling	

Sample ID (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area	Liters Minutes in^2, cm^2, ft^2	Analysis Requested	Method Reference	Internal Notes
24-0241934	08/27/2024	2 LPM PPI with PW PVC	1297.095	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	

☐ If the method(s) indicated on the COC are not our routine/preferred method(s), we will substitute our routine/preferred methods. If this is not acceptable, check here to have us contact you.

Chain of Custody	Print Name / Signature		Date	Time		Print Name / Signature	Date	Time
Relinquished By:	Jacob Rohling	SIGNED ELECTRONICALLY	08/30/2024	18:00	Received By:	Megan M. McGrath	9/4/24	12:18
Relinquished By:					Received By:			

Samples received after 3pm will be considered as next day's business.

Online COC No.: 304727
Prep No.:
Account No.: 13497
Finalized: 09/03/2024 12:39:37

All services are rendered in accordance with the applicable SGS General Conditions of Service accessible via: http://www.sgs.com/en/Terms-and-Conditions.aspx

SGS North America Inc. 6601 Kirkville Road E. Syracuse, NY 13057, USA t +1 888 432 5227 | +1 315 432 5227 www.galsonlabs.com | www.sgs.com

Member of the SGS Group (SGS SA)

CHAIN OF CUSTODY

Comments:

Sample ID (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area	Liters Minutes in^2, cm^2, ft^2	Analysis Requested	Method Reference	Internal Notes
24-0241935	08/27/2024	2 LPM PPI with PW PVC	1311.72	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241936	08/27/2024	2 LPM PPI with PW PVC	1249.248	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241937	08/27/2024	2 LPM PPI with PW PVC	1349.101	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241940	08/27/2024	2 LPM PPI with PW PVC	1168.245	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241929	08/27/2024	2 LPM PPI with PW PVC	1248.808	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241973	08/27/2024	2 LPM PPI with PW PVC	1302.48	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241941	08/27/2024	2 LPM PPI with PW PVC	920.7	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	

☐ If the method(s) indicated on the COC are not our routine/preferred method(s), we will substitute our routine/preferred methods. If this is not acceptable, check here to have us contact you.

Chain of Custody	Print Name / Signature		Date	Time		Print Name / Signature		Date	Time
Relinquished By:	Jacob Rohling	SIGNED ELECTRONICALLY	08/30/2024	18:00	Received By:	Megan M. McGrath	Megan M. McGrath	9/4/24	12:16
Relinquished By:					Received By:				

Samples received after 3pm will be considered as next day's business.

Online COC No. :304727
Prep No.:
Account No. :13497
Finalized :09/03/2024 12:39:37

All services are rendered in accordance with the applicable SGS General Conditions of Service accessible via: http://www.sgs.com/en/Terms-and-Conditions.aspx

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CHAIN OF CUSTODY

Comments:

Sample ID (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area	Liters Minutes in^2, cm^2, ft^2	Analysis Requested	Method Reference	Internal Notes
24-0241946	08/28/2024	2 LPM PPI with PW PVC	1095.276	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241947	08/28/2024	2 LPM PPI with PW PVC	1250.295	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241933	08/28/2024	2 LPM PPI with PW PVC	1503.48	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241943		2 LPM PPI with PW PVC	1211.015	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241944	08/28/2024	2 LPM PPI with PW PVC	1070.916	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241931	08/28/2024	2 LPM PPI with PW PVC	1433.18	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241928	08/29/2024	2 LPM PPI with PW PVC	1371.59	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	

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Chain of Custody	Print Name / Signature		Date	Time		Print Name / Signature		Date	Time
Relinquished By:	Jacob Rohling	SIGNED ELECTRONICALLY	08/30/2024	18:00	Received By:	Megan M. McGrath	Megan M. McGrath	9/4/24	12:18
Relinquished By:					Received By:				

Samples received after 3pm will be considered as next day's business.

Online COC No. :304727
Prep No. :
Account No. :13497
Finalized :09/03/2024 12:39:37

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CHAIN OF CUSTODY

Comments:

Sample ID (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area	Liters Minutes in^2, cm^2, ft^2	Analysis Requested	Method Reference	Internal Notes
24-0241938	08/29/2024	2 LPM PPI with PW PVC	1370.82	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241939	08/30/2024	2 LPM PPI with PW PVC	1247.455	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241945	08/30/2024	2 LPM PPI with PW PVC	1250.842	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241932	08/30/2024	2 LPM PPI with PW PVC	1194.228	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241927	08/30/2024	2 LPM PPI with PW PVC	N/A (BLANK)	N/A	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	

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Chain of Custody	Print Name / Signature		Date	Time		Print Name / Signature		Date	Time
Relinquished By:	Jacob Rohling	SIGNED ELECTRONICALLY	08/30/2024	18:00	Received By:	Megan M. McGrath	Megan M. McGrath	9/4/24	12:18
Relinquished By:					Received By:				

Samples received after 3pm will be considered as next day's business.

Online COC No. :304727
Prep No. :
Account No. :13497
Finalized :09/03/2024 12:39:37

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SGS CHAIN OF CUSTODY

Sampling Time / Air Volume Calculations

Sample No. (Sample Id)	Start Time	Stop Time	Minutes	Flow Rate	Calculated Air Volume
24-0241934	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	645	2.011	1297.095
24-0241935	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	643	2.04	1311.72
24-0241936	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	624	2.002	1249.248
24-0241937	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	661	2.041	1349.101
24-0241940	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	585	1.997	1168.245
24-0241929	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	617	2.024	1248.808
24-0241973	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	648	2.01	1302.48
24-0241941	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	450	2.046	920.7
24-0241946	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	546	2.006	1095.276
24-0241947	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	615	2.033	1250.295
24-0241933	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	737	2.04	1503.48
24-0241943	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	601	2.015	1211.015
24-0241944	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	532	2.013	1070.916
24-0241931	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	706	2.03	1433.18
24-0241928	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	674	2.035	1371.59
24-0241938	8/30/2024 8:06:25 AM	8/30/2024 6:10:00 PM	682	2.01	1370.82
24-0241939	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	613	2.035	1247.455
24-0241945	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	622	2.011	1250.842

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Chain of Custody	Print Name / Signature		Date	Time		Print Name / Signature		Date	Time
Relinquished By:	Jacob Rohling	SIGNED ELECTRONICALLY	08/30/2024	18:00	Received By:	Megan M. McGrath	Megan M. McGrath	9/4/24	12:28
Relinquished By:					Received By:				

Samples received after 3pm will be considered as next day's business.

Online COC No. :304727
Prep No. :
Account No. :13497
Finalized :09/03/2024 12:39:37

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CHAIN OF CUSTODY

Sampling Time / Air Volume Calculations

Sample No. (Sample Id)	Start Time	Stop Time	Minutes	Flow Rate	Calculated Air Volume
24-0241932	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	588	2.031	1194.228

☐ If the method(s) indicated on the COC are not our routine/preferred method(s), we will substitute our routine/preferred methods. If this is not acceptable, check here to have us contact you.

Chain of Custody	Print Name / Signature		Date	Time		Print Name / Signature	Date	Time
Relinquished By:	Jacob Rohling	SIGNED ELECTRONICALLY	08/30/2024	18:00	Received By:	Megan M. McGrath	9/4/24	12:18
Relinquished By:					Received By:			

Samples received after 3pm will be considered as next day's business.

Online COC No. :304727
Prep No. :
Account No. :13497
Finalized :09/03/2024 12:39:37

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CHAIN OF CUSTODY

Sampling Time / Air Volume Calculations

Sample No. (Sample Id)	Start Time	Stop Time	Minutes	Flow Rate	Calculated Air Volume

☐ If the method(s) indicated on the COC are not our routine/preferred method(s), we will substitute our routine/preferred methods. If this is not acceptable, check here to have us contact you.

Chain of Custody	Print Name / Signature		Date	Time		Print Name / Signature		Date	Time
Relinquished By:	Jacob Rohling	SIGNED ELECTRONICALLY	08/30/2024	18:00	Received By:	Megan M. McGrath	Megan M. McGrath	9/4/24	12:18
Relinquished By:					Received By:				

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SGS GALSON

Jacob Rohling
EnSafe, Inc.
525 Vine Street
Suite 1755
Cincinnati, OH 45202

November 06, 2024

Account# 13497

Login# L641839

Dear Jacob Rohling:

Enclosed are the analytical results for the samples received by our laboratory on October 28, 2024. All samples on the chain of custody were received in good condition unless otherwise noted. Any additional observations will be noted on the chain of custody.

Please contact client services at (888) 432-5227 if you would like any additional information regarding this report. Thank you for using SGS Galson.

Sincerely,

SGS Galson

Lisa Swab

Lisa Swab
Laboratory Director

Enclosure(s)

Terms and Conditions & General Disclaimers

- This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.
- Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Analytical Disclaimers

- Unless otherwise noted within the report, all quality control results associated with the samples were within established control limits or did not impact reported results.
- Note: The findings recorded within this report were drawn from analysis of the sample(s) provided to the laboratory by the Client (or a third party acting at the Client's direction). The laboratory does not have control over the sampling process, including but not limited to the use of field equipment and collection media, as well as the sampling duration, collection volume or any other collection parameter used by the Client. The findings herein constitute no warranty of the sample's representativeness of any sampled environment, and strictly relate to the samples as they were presented to the laboratory. For recommended sampling collection parameters, please refer to the Sampling and Analysis Guide at www.sgsgalson.com.
- Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceding the final result column may have been rounded and therefore, if carried through the calculations, may not yield an identical final result to the one reported.
- The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).
- Unless otherwise noted within the report, results have not been blank corrected for any field blank or method blank data.

Accreditations SGS Galson holds a variety of accreditations and recognitions. Our quality management system conforms with the requirements of ISO/IEC 17025. Where applicable, samples may also be analyzed in accordance with the requirements of ELAP, NELAC, or LELAP under one of the state accrediting bodies listed below. Current Scopes of Accreditation can be viewed at http://www.sgsgalson.com in the accreditations section of the "About" page. To determine if the analyte tested falls under our scope of accreditation, please visit our website or call Client Services at (888) 432-5227.

National/International	Accreditation/Recognition	Lab ID#	Program/Sector
AIHA-LAP, LLC - IHLAP, ELLAP, EMLAP	ISO/IEC 17025 and USEPA NLLAP	Lab ID 100324	Industrial Hygiene, Environmental Lead, Environmental Microbiology

State	Accreditation/Recognition	Lab ID#	Program/Sector
New York (NYSDOH)	ELAP and NELAC (TNI)	Lab ID: 11626	Air Analysis, Solid and Hazardous Waste
Louisiana (LDEQ)	LELAP	Lab ID: 04083	Air Analysis, Solid Chemical Materials

Legend

< - Less than	mg - Milligrams	MDL - Method Detection Limit	ppb - Parts per Billion
> - Greater than	ug - Micrograms	NA - Not Applicable	ppm - Parts per Million
l - Liters	m3 - Cubic Meters	NS - Not Specified	ppbv - ppb Volume
LOQ - Limit of Quantitation	kg - Kilograms	ND - Not Detected	ppmv - ppm Volume
ft2 - Square Feet	cm2 - Square Centimeters	in2 - Square Inches	ng - Nanograms

SGS GALSON

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.sgsgalson.com

LABORATORY ANALYSIS REPORT

Client : EnSafe
Site : EDWARD C. LEVY MULTISITE
Project No. : 0888838821-002
Date Sampled : 22-OCT-24 - 25-OCT-24
Date Received : 28-OCT-24

Account No.: 13497
Login No. : L641839
Date Analyzed : 04-NOV-24
Report ID : 1457592

Respirable Dust

Sample ID	Lab ID	Air Vol liter	Total mg	Conc mg/m3
24-0241979	L641839-9	1452.48	0.052	0.036
24-0241995	L641839-10	1454.196	<0.050	<0.034
24-0241993	L641839-11	1457.55	<0.050	<0.034
24-0241982	L641839-12	1453.95	<0.050	<0.034
24-0241992	L641839-13	1459.737	0.16	0.11
24-0241990	L641839-14	705.208	<0.050	<0.071
24-0241981	L641839-15	1258.43	0.097	0.077
24-0241985	L641839-16	1272.46	0.099	0.078
24-0241997	L641839-17	1289.912	<0.050	<0.039

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of Quantitation: 0.050 mg
Analytical Method : mod. NIOSH 0600; Gravimetric
Collection Media : PVC PW 37mm

Submitted by: EAP/PWL
Date : 05-NOV-24
Supervisor : HVN

Approved by: CMP

SGS GALSON

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LABORATORY ANALYSIS REPORT

Client : EnSafe
Site : EDWARD C. LEVY MULTISITE
Project No. : 0888838821-002
Date Sampled : 22-OCT-24 - 25-OCT-24
Date Received : 28-OCT-24

Account No.: 13497
Login No. : L641839
Date Analyzed : 04-NOV-24
Report ID : 1457592

Respirable Dust

Sample ID	Lab ID	Air Vol liter	Total mg	Conc mg/m3
24-0241980	L641839-18	NA	<0.050	NA

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of Quantitation: 0.050 mg
Analytical Method : mod. NIOSH 0600; Gravimetric
Collection Media : PVC PW 37mm

Submitted by: EAP/PWL
Date : 05-NOV-24
Supervisor : HVN

Approved by: CMP

SGS GALSON

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LABORATORY ANALYSIS REPORT

Client : EnSafe
Site : EDWARD C. LEVY MULTISITE
Project No. : 0888838821-002
Date Sampled : 22-OCT-24 - 25-OCT-24
Date Received : 28-OCT-24

Account No.: 13497
Login No. : L641839

Date Analyzed : 04-NOV-24 - 06-NOV-24
Report ID : 1458254

Respirable Crystalline Silica (RCS): Quartz

Sample ID	Lab ID	Analyte	Air Vol l	ug	ug/m3	ug/m3 as 8-hr TWA
24-0241979	L641839-9	Quartz	1452.48	<5.0	<3.4	<5.1
		Cristobalite	NA	NA	NA	NA
		Tridymite	NA	NA	NA	NA
		RCS	1452.48	<5.0	<3.4	<5.1
24-0241995	L641839-10	Quartz	1454.196	<5.0	<3.4	<5.1
		Cristobalite	NA	NA	NA	NA
		Tridymite	NA	NA	NA	NA
		RCS	1454.196	<5.0	<3.4	<5.1

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of quantitation: Q:5.0ug
Analytical Method : mod. NIOSH 7500/mod. OSHA ID-142; XRD
Collection Media : PVC PW 37mm

Submitted by: MLF
Date : 06-NOV-24
Supervisor : AFB

Approved by: NLO

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LABORATORY ANALYSIS REPORT

Client : EnSafe
Site : EDWARD C. LEVY MULTISITE
Project No. : 0888838821-002
Date Sampled : 22-OCT-24 - 25-OCT-24
Date Received : 28-OCT-24

Account No.: 13497
Login No. : L641839

Date Analyzed : 04-NOV-24 - 06-NOV-24
Report ID : 1458254

Respirable Crystalline Silica (RCS): Quartz

Sample ID	Lab ID	Analyte	Air Vol l	ug	ug/m3	ug/m3 as 8-hr TWA
24-0241993	L641839-11	Quartz	1457.55	<5.0	<3.4	<5.1
		Cristobalite	NA	NA	NA	NA
		Tridymite	NA	NA	NA	NA
		RCS	1457.55	<5.0	<3.4	<5.1
24-0241982	L641839-12	Quartz	1453.95	<5.0	<3.4	<5.1
		Cristobalite	NA	NA	NA	NA
		Tridymite	NA	NA	NA	NA
		RCS	1453.95	<5.0	<3.4	<5.1
24-0241992	L641839-13	Quartz	1459.737	14	9.6	14
		Cristobalite	NA	NA	NA	NA
		Tridymite	NA	NA	NA	NA
		RCS	1459.737	14	9.6	14

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of quantitation: Q:5.0ug
Analytical Method : mod. NIOSH 7500/mod. OSHA ID-142; XRD
Collection Media : PVC PW 37mm

Submitted by: MLF
Date : 06-NOV-24
Supervisor : AFB

Approved by: NLO

SGS GALSON

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LABORATORY ANALYSIS REPORT

Client : EnSafe
Site : EDWARD C. LEVY MULTISITE
Project No. : 0888838821-002
Date Sampled : 22-OCT-24 - 25-OCT-24
Date Received : 28-OCT-24

Account No.: 13497
Login No. : L641839

Date Analyzed : 04-NOV-24 - 06-NOV-24
Report ID : 1458254

Respirable Crystalline Silica (RCS): Quartz

Sample ID	Lab ID	Analyte	Air Vol l	ug	ug/m3	ug/m3 as 8-hr TWA
24-0241990	L641839-14	Quartz	705.208	<5.0	<7.1	<5.1
		Cristobalite	NA	NA	NA	NA
		Tridymite	NA	NA	NA	NA
		RCS	705.208	<5.0	<7.1	<5.1
24-0241981	L641839-15	Quartz	1258.43	12	9.8	12
		Cristobalite	NA	NA	NA	NA
		Tridymite	NA	NA	NA	NA
		RCS	1258.43	12	9.8	12
24-0241985	L641839-16	Quartz	1272.46	14	11	14
		Cristobalite	NA	NA	NA	NA
		Tridymite	NA	NA	NA	NA
		RCS	1272.46	14	11	14

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of quantitation: Q:5.0ug
Analytical Method : mod. NIOSH 7500/mod. OSHA ID-142; XRD
Collection Media : PVC PW 37mm

Submitted by: MLF
Date : 06-NOV-24
Supervisor : AFB

Approved by: NLO

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LABORATORY ANALYSIS REPORT

Client : EnSafe
Site : EDWARD C. LEVY MULTISITE
Project No. : 0888838821-002
Date Sampled : 22-OCT-24 - 25-OCT-24
Date Received : 28-OCT-24

Account No.: 13497
Login No. : L641839

Date Analyzed : 04-NOV-24 - 06-NOV-24
Report ID : 1458254

Respirable Crystalline Silica (RCS): Quartz

Sample ID	Lab ID	Analyte	Air Vol l	ug	ug/m3	ug/m3 as 8-hr TWA
24-0241997	L641839-17	Quartz	1289.912	<5.0	<3.9	<5.1
		Cristobalite	NA	NA	NA	NA
		Tridymite	NA	NA	NA	NA
		RCS	1289.912	<5.0	<3.9	<5.1
24-0241980	L641839-18	Quartz	NA	<5.0	NA	NA
		Cristobalite	NA	NA	NA	NA
		Tridymite	NA	NA	NA	NA
		RCS	NA	<5.0	NA	NA

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of quantitation: Q:5.0ug
Analytical Method : mod. NIOSH 7500/mod. OSHA ID-142; XRD
Collection Media : PVC PW 37mm

Submitted by: MLF
Date : 06-NOV-24
Supervisor : AFB

Approved by: NLO

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LABORATORY FOOTNOTE REPORT

Client Name : EnSafe
Site : EDWARD C. LEVY MULTISITE
Project No. : 0888838821-002

Date Sampled : 22-OCT-24 - 25-OCT-24 Account No.: 13497
Date Received: 28-OCT-24 Login No. : L641839
Date Analyzed: 04-NOV-24 - 06-NOV-24

L641839 (Report ID: 1457592):
SOPs: GRAV-SOP-6(28), GRAV-SOP-5(36)

L641839 (Report ID: 1457592):
Accuracy and mean recovery data presented below is based on a 95% confidence interval (k=2). The estimated accuracy applies to the media, technology, and SOP referenced in this report and does not account for the uncertainty associated with the sampling process. The accuracy is based solely on spike recovery data from internal quality control samples. Where N/A appears below, insufficient data is available to provide statistical accuracy and mean recovery values for the associated analyte.

Parameter	Accuracy	Mean Recovery
Respirable Dust	+/-6.3%	104%

L641839 (Report ID: 1458254):
The reported RCS value is based on recoveries of silica polymorphs (Quartz, Cristobalite, and/or Tridymite) greater than the reporting level. The presence of silica below the reporting level cannot be ruled out. When all polymorph results are below the reporting level, RCS defaults to the lowest polymorph concentration. The calibration standard used for Tridymite analysis is not NIST traceable; however, when Tridymite is detected above the reporting level, it is included in the RCS calculation.
SOPs: ix-calibrate(19), ix-xrdreview(23), ix-xrdashprep(50), ix-xrdstdprep(39)
The MSHA calculations are based solely on the analysis of the silica polymorphs which were requested for analysis and does not rule out the possible presence of silica polymorphs which were not requested. The 8-hour TWA value is always normalized to a period of 480 minutes regardless of the total sampling time.
TWA = Time Weighted Average
RCS = Respirable Crystalline Silica
We perform a quantitative secondary angle confirmation on all Quartz results greater than 0.025 mg.
Secondary angle quantitative confirmation is not possible below 0.025 mg.

L641839 (Report ID: 1458254):
Accuracy and mean recovery data presented below is based on a 95% confidence interval (k=2). The estimated accuracy applies to the media, technology, and SOP referenced in this report and does not account for the uncertainty associated with the sampling process. The accuracy is based solely on spike recovery data from internal quality control samples. Where N/A appears below, insufficient data is available to provide statistical accuracy and mean recovery values for the associated analyte.

Parameter	Accuracy	Mean Recovery
Quartz	+/-13.8%	86%

L641839

SGS

CHAIN OF CUSTODY

30 371

Turn Around Time (TAT)	surcharge
☒ MEL Standard	0%
☐ 4 Business Days	35%
☐ 3 Business Days	50%
☐ 2 Business Days	75%
☐ Next Day by 6pm	100%
☐ Next Day by Noon	150%
☐ Same Day	200%

Client Acct No.: 13497

Original Prep No.:

Online COC No.: 309192

Report To: Jacob Rohling
Company Name: EnSafe, Inc.
Address 1: 525 Vine Street
Address 2: Suite 1755
City, State Zip: Cincinnati, OH 45202
Phone No.: 901-372-7962
Cell No.: 859-609-2491
Email reports to: jrohling@ensafe.com, ihlab@ensafe.com, mprzybylski@ensafe.com
Email EDD to: jrohling@ensafe.com, ihlab@ensafe.com, mprzybylski@ensafe.com
Comments:

Invoice To: Accounts Payable
Company Name: EnSafe-MEMPHIS, TN
Address 1: 5724 Summer Trees Drive
Address 2:
Company Name: Memphis, TN 38134
Phone No.: 901-372-7962
Email Address: accountspayable@ensafe.com
Comments:
P.O. No.:
Payment info.: ☐ I will call SGS to provide credit card info
☐ Card on File (enter the last five digits on the line below)

Comments:

State Sampled: MI ☒ MSHA

Site Name: Edward C. Levy Multisite
Project: 0888838821-002
Sampled By: Jacob Rohling
List description of industry or Processes/Interfaces present in sampling area:

Sample ID (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area	Liters Minutes in², cm², ft²	Analysis Requested	Method Reference	Internal Notes
24-0256043	10/23/2024	2 LPM PPI with PW PVC	1321.604	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241999	10/23/2024	2 LPM PPI with PW PVC	1289.925	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	

☐ If the method(s) indicated on the COC are not our routine/preferred method(s), we will substitute our routine/preferred methods. If this is not acceptable, check here to have us contact you.

Chain of Custody	Print Name / Signature	Date	Time		Print Name / Signature	Date	Time
Relinquished By:	Jacob Rohling	10/25/2024	17:09	Received By:	Yasmine B Rivas / Yasmine B Rivas	~~10/30/24~~	~~0824~~
Relinquished By:				Received By:		10/28/24	1 [illegible]

Samples received after 3pm will be considered as next day's business.

Online COC No. :309192
Prep No. :
Account No. :13497
Finalized :10/25/2024 21:10:17

All services are rendered in accordance with the applicable SGS General Conditions of Service accessible via: http://www.sgs.com/en/Terms-and-Conditions.aspx

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CHAIN OF CUSTODY

Comments:

Sample ID (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area	Liters Minutes in^2, cm^2, ft^2	Analysis Requested	Method Reference	Internal Notes
24-0304657	10/22/2024	2 LPM PPI with PW PVC	1311.05	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0304656	10/22/2024	2 LPM PPI with PW PVC	1078.949	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241996	10/23/2024	2 LPM PPI with PW PVC	1286.752	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0256039	10/23/2024	2 LPM PPI with PW PVC	1519.542	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241998	10/23/2024	2 LPM PPI with PW PVC	1266.72	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241979	10/24/2024	2 LPM PPI with PW PVC	1452.48	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241995	10/24/2024	2 LPM PPI with PW PVC	1454.196	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	

☐ If the method(s) indicated on the COC are not our routine/preferred method(s), we will substitute our routine/preferred methods. If this is not acceptable, check here to have us contact you.

Chain of Custody	Print Name / Signature	Date	Time		Print Name / Signature	Date	Time
Relinquished By:	Jacob Rohling	10/25/2024	17:09	Received By:	Jasmine Brewer	10/25/24	1709
Relinquished By:				Received By:		10/25/24	1700

Samples received after 3pm will be considered as next day's business.

Online COC No. :309192
Prep No. :
Account No. :13497
Finalized :10/25/2024 21:10:17

All services are rendered in accordance with the applicable SGS General Conditions of Service accessible via: http://www.sgs.com/en/Terms-and-Conditions.aspx

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CHAIN OF CUSTODY

Comments:

Sample ID (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area	Liters Minutes in^2, cm^2, ft^2	Analysis Requested	Method Reference	Internal Notes
24-0241993	10/23/2024	2 LPM PPI with PW PVC	1457.55	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241982	10/24/2024	2 LPM PPI with PW PVC	1453.95	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241992	10/24/2024	2 LPM PPI with PW PVC	1459.737	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241990	10/24/2024	2 LPM PPI with PW PVC	705.208	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241981	10/25/2024	2 LPM PPI with PW PVC	1258.43	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241985	10/25/2024	2 LPM PPI with PW PVC	1272.46	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241997	10/25/2024	2 LPM PPI with PW PVC	1289.912	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	

☐ If the method(s) indicated on the COC are not our routine/preferred method(s), we will substitute our routine/preferred methods. If this is not acceptable, check here to have us contact you.

Chain of Custody	Print Name / Signature		Date	Time		Print Name / Signature		Date	Time
Relinquished By:	Jacob Rohling		10/25/2024	17:09	Received By:	Yasmine B Rivas	Yasmine B Rivas	10/25/24	0824
Relinquished By:					Received By:			10/28/24	1200

Samples received after 3pm will be considered as next day's business.

Online COC No. :309192
Prep No. :
Account No. :13497
Finalized :10/25/2024 21:10:17

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CHAIN OF CUSTODY

Comments:

Sample ID (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area	Liters Minutes in^2, cm^2, ft^2	Analysis Requested	Method Reference	Internal Notes
24-0241980	10/25/2024	2 LPM PPI with PW PVC	N/A (BLANK)	N/A	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	

☐ If the method(s) indicated on the COC are not our routine/preferred method(s), we will substitute our routine/preferred methods. If this is not acceptable, check here to have us contact you.

Chain of Custody	Print Name / Signature		Date	Time		Print Name / Signature	Date	Time
Relinquished By:	Jacob Rohling		10/25/2024	17:09	Received By:	Yasmine Brivas / Yasmine Brivas	[illegible]	[illegible]
Relinquished By:					Received By:		10/25/24	1200

Samples received after 3pm will be considered as next day's business.

Online COC No. :309192
Prep No. :
Account No. :13497
Finalized :10/25/2024 21:10:17

All services are rendered in accordance with the applicable SGS General Conditions of Service accessible via: http://www.sgs.com/en/Terms-and-Conditions.aspx

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CHAIN OF CUSTODY

Sampling Time / Air Volume Calculations

Sample No. (Sample Id)	Start Time	Stop Time	Minutes	Flow Rate	Calculated Air Volume
24-0256043	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	652	2.027	1321.604
24-0241999	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	637	2.025	1289.925
24-0304657	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	650	2.017	1311.05
24-0304656	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	523	2.063	1078.949
24-0241996	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	632	2.036	1286.752
24-0256039	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	738	2.059	1519.542
24-0241998	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	624	2.03	1266.72
24-0241979	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	712	2.04	1452.48
24-0241995	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	716	2.031	1454.196
24-0241993	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	711	2.05	1457.55
24-0241982	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	718	2.025	1453.95
24-0241992	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	723	2.019	1459.737
24-0241990	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	343	2.056	705.208
24-0241981	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	610	2.063	1258.43
24-0241985	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	610	2.086	1272.46
24-0241997	12/31/1970 7:00:00 PM	12/31/1970 7:00:00 PM	632	2.041	1289.912

☐ If the method(s) indicated on the COC are not our routine/preferred method(s), we will substitute our routine/preferred methods. If this is not acceptable, check here to have us contact you.

Chain of Custody	Print Name / Signature		Date	Time		Print Name / Signature		Date	Time
Relinquished By:	Jacob Rohling		10/25/2024	17:09	Received By:	Yasmine B Rivas	Yasmine B Rivas	10/25/24	08
Relinquished By:					Received By:			10/28/24	1210

Samples received after 3pm will be considered as next day's business.

Online COC No. 309192
Prep No. :
Account No. :13497
Finalized :10/25/2024 21:10:17

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CHAIN OF CUSTODY

Sampling Time / Air Volume Calculations

Sample No. (Sample Id)	Start Time	Stop Time	Minutes	Flow Rate	Calculated Air Volume

☐ If the method(s) indicated on the COC are not our routine/preferred method(s), we will substitute our routine/preferred methods. If this is not acceptable, check here to have us contact you.

Chain of Custody	Print Name / Signature		Date	Time		Print Name / Signature	Date	Time
Relinquished By:	Jacob Rohling		10/25/2024	17:09	Received By:	Yasmine Blinds	10/30/24	
Relinquished By:					Received By:		10/25/24 1705	

Samples received after 3pm will be considered as next day's business.

Online COC No. :309192
Prep No. :
Account No. :13497
Finalized :10/25/2024 21:10:17

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SGS GALSON

Mike Przybylski
EnSafe, Inc.
525 Vine Street
Suite 1755
Cincinnati, OH 45202

December 02, 2024

Account# 13497

Login# L644300

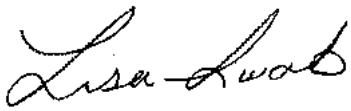
Dear Mike Przybylski:

Enclosed are the analytical results for the samples received by our laboratory on November 21, 2024. All samples on the chain of custody were received in good condition unless otherwise noted. Any additional observations will be noted on the chain of custody.

Please contact client services at (888) 432-5227 if you would like any additional information regarding this report. Thank you for using SGS Galson.

Sincerely,

SGS Galson



Lisa Swab
Laboratory Director

Enclosure(s)

Terms and Conditions & General Disclaimers

- This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.
- Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Analytical Disclaimers

- Unless otherwise noted within the report, all quality control results associated with the samples were within established control limits or did not impact reported results.
- Note: The findings recorded within this report were drawn from analysis of the sample(s) provided to the laboratory by the Client (or a third party acting at the Client's direction). The laboratory does not have control over the sampling process, including but not limited to the use of field equipment and collection media, as well as the sampling duration, collection volume or any other collection parameter used by the Client. The findings herein constitute no warranty of the sample's representativeness of any sampled environment, and strictly relate to the samples as they were presented to the laboratory. For recommended sampling collection parameters, please refer to the Sampling and Analysis Guide at www.sgsgalson.com.
- Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceding the final result column may have been rounded and therefore, if carried through the calculations, may not yield an identical final result to the one reported.
- The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).
- Unless otherwise noted within the report, results have not been blank corrected for any field blank or method blank data.

Accreditations SGS Galson holds a variety of accreditations and recognitions. Our quality management system conforms with the requirements of ISO/IEC 17025. Where applicable, samples may also be analyzed in accordance with the requirements of ELAP, NELAC, or LELAP under one of the state accrediting bodies listed below. Current Scopes of Accreditation can be viewed at http://www.sgsgalson.com in the accreditations section of the "About" page. To determine if the analyte tested falls under our scope of accreditation, please visit our website or call Client Services at (888) 432-5227.

National/International	Accreditation/Recognition	Lab ID#	Program/Sector
AIHA-LAP, LLC - IHLAP, ELLAP, EMLAP	ISO/IEC 17025 and USEPA NLLAP	Lab ID 100324	Industrial Hygiene, Environmental Lead, Environmental Microbiology

State	Accreditation/Recognition	Lab ID#	Program/Sector
New York (NYSDOH)	ELAP and NELAC (TNI)	Lab ID: 11626	Air Analysis, Solid and Hazardous Waste
Louisiana (LDEQ)	LELAP	Lab ID: 04083	Air Analysis, Solid Chemical Materials

Legend

< - Less than	mg - Milligrams	MDL - Method Detection Limit	ppb - Parts per Billion
> - Greater than	ug - Micrograms	NA - Not Applicable	ppm - Parts per Million
l - Liters	m3 - Cubic Meters	NS - Not Specified	ppbv - ppb Volume
LOQ - Limit of Quantitation	kg - Kilograms	ND - Not Detected	ppmv - ppm Volume
ft2 - Square Feet	cm2 - Square Centimeters	in2 - Square Inches	ng - Nanograms

SGS GALSON

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.sgsgalson.com

LABORATORY ANALYSIS REPORT

Client : EnSafe
Site : Edw C. Levy Co. - Hartland, MI
Project No. : 0888838821-002
Date Sampled : 20-NOV-24
Date Received : 21-NOV-24

Account No.: 13497
Login No. : L644300
Date Analyzed : 22-NOV-24
Report ID : 1462698

Respirable Dust

Sample ID	Lab ID	Air Vol liter	Total mg	Conc mg/m3
24-0241991	L644300-1	NA	<0.050	NA
24-0241983	L644300-2	1154.295	<0.050	<0.043
24-0241994	L644300-3	1113.33	<0.050	<0.045

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of Quantitation: 0.050 mg
Analytical Method : mod. NIOSH 0600; Gravimetric
Collection Media : PVC PW 37mm

Submitted by: EAP
Date : 27-NOV-24
Supervisor : HVN

Approved by: HVN

SGS GALSON

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.sgsgalson.com

LABORATORY ANALYSIS REPORT

Client : EnSafe
Site : Edw C. Levy Co. - Hartland, MI
Project No. : 0888838821-002
Date Sampled : 20-NOV-24
Date Received : 21-NOV-24

Account No.: 13497
Login No. : L644300
Date Analyzed : 22-NOV-24 - 26-NOV-24
Report ID : 1462424

Respirable Crystalline Silica (RCS): Quartz

Sample ID	Lab ID	Analyte	Air Vol l	ug	ug/m3	ug/m3 as 8-hr TWA
24-0241991	L644300-1	Quartz	NA	<5.0	NA	NA
		Cristobalite	NA	NA	NA	NA
		Tridymite	NA	NA	NA	NA
		RCS	NA	<5.0	NA	NA
24-0241983	L644300-2	Quartz	1154.295	<5.0	<4.3	<5.1
		Cristobalite	NA	NA	NA	NA
		Tridymite	NA	NA	NA	NA
		RCS	1154.295	<5.0	<4.3	<5.1
24-0241994	L644300-3	Quartz	1113.33	<5.0	<4.5	<5.2
		Cristobalite	NA	NA	NA	NA
		Tridymite	NA	NA	NA	NA
		RCS	1113.33	<5.0	<4.5	<5.2

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of quantitation: Q:5.0ug
Analytical Method : mod. NIOSH 7500/mod. OSHA ID-142; XRD
Collection Media : PVC PW 37mm

Submitted by: JSC/CKB
Date : 02-DEC-24
Supervisor : AFB

Approved by: CMR

SGS GALSON

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.sgsgalson.com

LABORATORY FOOTNOTE REPORT

Client Name : EnSafe
Site : Edw C. Levy Co. - Hartland, MI
Project No. : 0888838821-002

Date Sampled : 20-NOV-24 Account No.: 13497
Date Received: 21-NOV-24 Login No. : L644300
Date Analyzed: 22-NOV-24 - 26-NOV-24

L644300 (Report ID: 1462698):
SOPs: GRAV-SOP-6(28), GRAV-SOP-5(36)

L644300 (Report ID: 1462698):
Accuracy and mean recovery data presented below is based on a 95% confidence interval (k=2). The estimated accuracy applies to the media, technology, and SOP referenced in this report and does not account for the uncertainty associated with the sampling process. The accuracy is based solely on spike recovery data from internal quality control samples. Where N/A appears below, insufficient data is available to provide statistical accuracy and mean recovery values for the associated analyte.

Parameter	Accuracy	Mean Recovery
Respirable Dust	+/-6.3%	104%

L644300 (Report ID: 1462424):
The reported RCS value is based on recoveries of silica polymorphs (Quartz, Cristobalite, and/or Tridymite) greater than the reporting level. The presence of silica below the reporting level cannot be ruled out. When all polymorph results are below the reporting level, RCS defaults to the lowest polymorph concentration. The calibration standard used for Tridymite analysis is not NIST traceable; however, when Tridymite is detected above the reporting level, it is included in the RCS calculation.
SOPs: ix-calibrate(19), ix-xrdreview(24), ix-xrdashprep(50), ix-xrdstdprep(39)
The MSHA calculations are based solely on the analysis of the silica polymorphs which were requested for analysis and does not rule out the possible presence of silica polymorphs which were not requested. The 8-hour TWA value is always normalized to a period of 480 minutes regardless of the total sampling time.
TWA = Time Weighted Average
RCS = Respirable Crystalline Silica

L644300 (Report ID: 1462424):
Accuracy and mean recovery data presented below is based on a 95% confidence interval (k=2). The estimated accuracy applies to the media, technology, and SOP referenced in this report and does not account for the uncertainty associated with the sampling process. The accuracy is based solely on spike recovery data from internal quality control samples. Where N/A appears below, insufficient data is available to provide statistical accuracy and mean recovery values for the associated analyte.

Parameter	Accuracy	Mean Recovery
Quartz	+/-13.8%	86%

SGS L644300

CHAIN OF CUSTODY

Turn Around Time (TAT)		surcharge
☒	Standard	0%
☐	4 Business Days	35%
☐	3 Business Days	50%
☐	2 Business Days	75%
☐	Next Day by 6pm	100%
☐	Next Day by Noon	150%
☐	Same Day	200%

Client Acct No.: 13497

Original Prep No.:

Online COC No.: 311133

Report To: Mike Przybylski
Company Name: EnSafe, Inc.
Address 1: 525 Vine Street
Address 2: Suite 1755
City, State Zip: Cincinnati, OH 45202
Phone No.: 513-621-7233
Cell No.: 513-236-6466
Email reports to: mprzybylski@ensafe.com, ihlab@ensafe.com, tonya.lancaster@sgs.com, bgoodman@ensafe.com, jrohling@ensafe.com
Email EDD to: mprzybylski@ensafe.com, ihlab@ensafe.com, tonya.lancaster@sgs.com, bgoodman@ensafe.com, jrohling@ensafe.com
Comments:

Invoice To: Accounts Payable
Company Name: EnSafe-MEMPHIS, TN
Address 1: 5724 Summer Trees Drive
Address 2:
Company Name: Memphis, TN 38134
Phone No.: 901-372-7962
Email Address: accountspayable@ensafe.com
Comments:
P.O. No.:
Payment info.: ☐ I will call SGS to provide credit card info
☐ Card on File (enter the last five digits on the line below)

Comments:

State Sampled: MI

☒ MSHA

Site Name: Edw C. Levy Co. - Hartland, MI

Project: 0888838821-002

Sampled By: EnSafe

List description of industry or Processes/Interfaces present in sampling area:

Sample ID (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area	Liters Minutes in^2, cm^2, ft^2	Analysis Requested	Method Reference	Internal Notes
24-0241991	11/20/2024	2 LPM PPI with PW PVC	N/A (BLANK)	N/A	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	

☐ If the method(s) indicated on the COC are not our routine/preferred method(s), we will substitute our routine/preferred methods. If this is not acceptable, check here to have us contact you.

Chain of Custody	Print Name / Signature		Date	Time		Print Name / Signature	Date	Time
Relinquished By:	Mike Przybylski	SIGNED ELECTRONICALLY	11/20/2024	17:26	Received By:	Kris Stone	11/21/24	1415
Relinquished By:					Received By:			

Samples received after 3pm will be considered as next day's business.

Online COC No. :311133
Prep No. :
Account No. :13497
Finalized :11/21/2024 15:26:42

All services are rendered in accordance with the applicable SGS General Conditions of Service accessible via: http://www.sgs.com/en/Terms-and-Conditions.aspx

SGS North America Inc. 6601 Kirkville Road E. Syracuse, NY 13057, USA | +1 888 432 5227 | +1 315 432 5227 www.gaisonlabs.com | www.sgs.com

Member of the SGS Group (SGS SA)

SGS CHAIN OF CUSTODY

Comments:

Sample ID (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area	Liters Minutes in^2, cm^2, ft^2	Analysis Requested	Method Reference	Internal Notes
24-0241983	11/20/2024	2 LPM PPI with PW PVC	1154.295	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	
24-0241994	11/20/2024	2 LPM PPI with PW PVC	1113.33	L	Silica, crystalline quartz (with respirable dust)	mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD	

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SGS CHAIN OF CUSTODY

Sampling Time / Air Volume Calculations

Sample No. (Sample Id)	Start Time	Stop Time	Minutes	Flow Rate	Calculated Air Volume
24-0241983	11/20/2024 6:48:12 AM	11/20/2024 4:12:26 PM	565	2.043	1154.295
24-0241994	11/20/2024 6:49:51 AM	11/20/2024 4:04:07 PM	555	2.006	1113.33

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Attachment C
Employee Notification Letters

Employee Notification Letter — Air Sampling
Edw C. Levy Co. — Michigan Aggregates

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Employee Signature/Date

Result <10% of OEL; or if "---" below LOQ
Result ≥10% but <50% of OEL
Result ≥ Action Level (50% of OEL), but ≤OEL
Result >OEL

Employee Name	Work Area	Job Title	Shift Length (hours)	Sample Date	Sample ID	Sample Length (minutes)	Analyte	If below LOQ "<"	Sample Result	OEL (may be adjusted if shift >8 hrs.)	Units	OEL (%)	OEL Reference	Sample Duration	Personal Protective Equipment
Ryan Coleman	Quarry	Dredge Operator	12	8/28/2024	24-0241946	546	Respirable Crystalline Silica	<	**5.2**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves
							Respirable Particulates	<	**0.046**	5	mg/m³	---	MSHA	TWA	
Ryan Coleman	Quarry	Dredge Operator	12	10/24/2024	24-0241979	712	Respirable Crystalline Silica	<	**5.1**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves
							Respirable Particulates		**0.036**	5	mg/m³	**0.7%**	MSHA	TWA	

OEL = occupational exposure limit
TWA = time-weighted average
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Ricky Shinavier	Quarry	Plant Operator	12	8/28/2024	24-0241947	615	Respirable Crystalline Silica		**5.2**	50	µg/m³	**10%**	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves
							Respirable Particulates	<	**0.040**	5	mg/m³	**---**	MSHA	TWA	
Ricky Shinavier	Quarry	Ground Man	12	10/24/2024	24-0241992	723	Respirable Crystalline Silica		**14**	50	µg/m³	**28%**	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves
							Respirable Particulates		**0.11**	5	mg/m³	**2.2%**	MSHA	TWA	

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Zachary Coreschi	Quarry	Pit Loader	12	8/28/2024	24-0241933	737	Respirable Crystalline Silica	<	**5.1**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves
							Respirable Particulates	<	**0.033**	5	mg/m³	---	MSHA	TWA	
Zachary Coreschi	Quarry	Pit Loader	12	10/24/2024	24-0241993	711	Respirable Crystalline Silica	<	**5.1**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves
							Respirable Particulates	<	**0.034**	5	mg/m³	---	MSHA	TWA	

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Jordan Heinz	Quarry	Shipping Loader	12	8/28/2024	24-0241943	601	Respirable Crystalline Silica	<	**5.2**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves
							Respirable Particulates	<	**0.041**	5	mg/m³	---	MSHA	TWA	
Jordan Heinz	Quarry	Shipping Loader	12	10/24/2024	24-0241982	718	Respirable Crystalline Silica	<	**5.1**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves
							Respirable Particulates	<	**0.034**	5	mg/m³	---	MSHA	TWA	

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Kandice Hill	Quarry	Quality Control Technician	10	8/28/2024	24-0241944	532	Respirable Crystalline Silica		**7.5**	50	µg/m³	**15%**	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves
							Respirable Particulates		**0.059**	5	mg/m³	**1.2%**	MSHA	TWA	

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Chase Veres	Quarry	Ground Man	12	8/28/2024	24-0241931	706	Respirable Crystalline Silica	<	**5.1**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves
							Respirable Particulates	<	**0.035**	5	mg/m³	---	MSHA	TWA	

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Earl Studer	Quarry	Plant Operator	12	10/24/2024	24-0241995	716	Respirable Crystalline Silica	<	**5.1**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves
							Respirable Particulates	<	**0.034**	5	mg/m³	---	MSHA	TWA	

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Hunter Raymond	Quarry	Quality Control Technician	10	10/24/2024	24-0241990	343	Respirable Crystalline Silica	<	**5.1**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves
							Respirable Particulates	<	**0.071**	5	mg/m³	---	MSHA	TWA	

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Gene Wedenstorer	Quarry	Loader Operator	12	8/29/2024	24-0241928	674	Respirable Crystalline Silica	<	**5.1**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves
							Respirable Particulates	<	**0.036**	5	mg/m³	---	MSHA	TWA	

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Jamie Kangas	Quarry	Loader Operator	12	8/29/2024	24-0241938	682	Respirable Crystalline Silica	<	**5.2**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves
							Respirable Particulates		**0.042**	5	mg/m³	**0.8%**	MSHA	TWA	
Jamie Kangas	Quarry	Loader Operator	10	11/20/2024	24-0241994	555	Respirable Crystalline Silica	<	**5.2**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves
							Respirable Particulates	<	**0.045**	5	mg/m³	---	MSHA	TWA	

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Brett Miller	Quarry	Pit Loader	12	8/30/2024	24-0241939	613	Respirable Crystalline Silica	<	**6.1**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves
							Respirable Particulates	<	**0.040**	5	mg/m³	---	MSHA	TWA	
Brett Miller	Quarry	Pit Loader	12	10/25/2024	24-0241981	610	Respirable Crystalline Silica		**12**	50	µg/m³	**24%**	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves
							Respirable Particulates		**0.077**	5	mg/m³	**1.5%**	MSHA	TWA	
Brett Miller	Quarry	Loader Operator	10	11/20/2024	24-0241983	564	Respirable Crystalline Silica	<	**5.1**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves
							Respirable Particulates	<	**0.043**	5	mg/m³	---	MSHA	TWA	

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Employee Notification Letter — Air Sampling
Edw C. Levy Co. — Michigan Aggregates

On the date noted below, you participated in exposure monitoring while performing various tasks in your work area. The monitoring was conducted by EnSafe Inc. Please find below the results of your monitoring event, along with the associated exposure limit.

Airborne exposure results were compared to their applicable MSHA permissible exposure limits and action level. MSHA PELs are based on a full-shift exposure (including extended shifts) and calculated as an 8-hr TWA.

The results do not consider reduction in exposure due to personal protective equipment worn. Continue to wear personal protective equipment in accordance with company policy. Please note that many factors can influence the results of sampling. A change in workplace conditions or work processes may warrant additional sampling.

We appreciate your participation in this exposure evaluation. If you have any questions, please contact your safety representative.

Company Representative Signature/Date

Employee Signature/Date

Result <10% of OEL; or if "---" below LOQ
Result ≥10% but <50% of OEL
Result ≥ Action Level (50% of OEL), but ≤OEL
Result >OEL

Employee Name	Work Area	Job Title	Shift Length (hours)	Sample Date	Sample ID	Sample Length (minutes)	Analyte	If below LOQ "<"	Sample Result	OEL (may be adjusted if shift >8 hrs.)	Units	OEL (%)	OEL Reference	Sample Duration	Personal Protective Equipment
Ted Bauer	Quarry	Shipping Loader	12	8/30/2024	24-0241945	622	Respirable Crystalline Silica	<	**5.2**	50	µg/m³	---	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves
							Respirable Particulates	<	**0.040**	5	mg/m³	---	MSHA	TWA	

OEL = occupational exposure limit
TWA = time-weighted average
ppm = parts per million
mg/m^3 = milligrams per cubic meter
LOQ = level of quantitation
$\mu g/m^3$ = micrograms per cubic meter
STEL = short-term exposure limit

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Dante Ball	Quarry	Quality Control Technician	12	8/30/2024	24-0241932	588	Respirable Crystalline Silica		**16**	50	µg/m³	**32%**	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves
							Respirable Particulates		**0.072**	5	mg/m³	**1.4%**	MSHA	TWA	
Dante Ball	Quarry	Quality Control Technician	12	10/25/2024	24-0241997	632	Respirable Crystalline Silica	<	**5.1**	50	µg/m³	**---**	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves
							Respirable Particulates	<	**0.039**	5	mg/m³	**---**	MSHA	TWA	

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Employee Name	Work Area	Job Title	Shift Length (hours)	Sample Date	Sample ID	Sample Length (minutes)	Analyte	If below LOQ "<"	Sample Result	OEL (may be adjusted if shift >8 hrs.)	Units	OEL (%)	OEL Reference	Sample Duration	Personal Protective Equipment
Gene Wadenstorer	Quarry	Shipping Loader	12	10/25/2024	24-0241985	610	Respirable Crystalline Silica		**14**	50	µg/m³	**28%**	MSHA	TWA	Hard hat, safety shoes, safety glasses, gloves
							Respirable Particulates		**0.078**	5	mg/m³	**1.6%**	MSHA	TWA	

OEL = occupational exposure limit
TWA = time-weighted average
ppm = parts per million
mg/m^3 = milligrams per cubic meter
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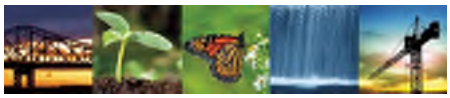
EXHIBIT 13



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Built on trust.

GEOTECHNICAL
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CONSTRUCTION MANAGEMENT

17975 West Sarah Lane
Suite 100
Brookfield, WI 53045
T: 262.754.2560
F: 262.923.7758
www.gza.com

February 28, 2025
File No. 20.0158691.01

Mr. Thomas Forster II
Varnum LLP
101 North Main Street, Suite 525
Ann Arbor, Michigan 48104

Re: Focused Noise Estimation Report
Proposed Crushing Operation
14435 Horning Road
Brooklyn, Michigan 49230

Dear Mr. Forster:

In accordance with your request, GZA GeoEnvironmental, Inc. (GZA) is pleased to provide this Focused Noise Estimation Report to Varnum LLP, on behalf of Edward C. Levy Co. ("Client"), to estimate sound pressure levels (SPLs) (noise) for a proposed sand and gravel mining and processing operation in Norvell Township at 14435 Horning Road in Brooklyn, Michigan ("Site"). This report is subject to the Limitations provided in **Attachment 1**.

BACKGROUND

GZA understands that the Client plans to operate a sand and gravel processing plant, as shown on **Figure 1**, and requested that GZA evaluate the noise levels at surrounding potential receptor locations. The potential receptor locations that we evaluated are illustrated on **Figure 1**. The estimated distance from the noise source, the processing plant, to each potential receptor location was provided to GZA and is listed in **Table 1**.

GZA also understands that the proposed plant Site will be on the mine floor surrounded by a 25- to 30-foot vertical pit bank (walls). Client is intending to construct approximately 15-foot-high berms around the perimeter of the mining operation. The perimeter berms will provide sound attenuation and serve as a visual barrier.

NOISE EVALUATION

Locating the processing plant on the mine floor will minimize the potential noise impacts on neighboring receptor locations. The processing plant will include a crusher, screens, wash plant, conveyors, front end loaders, customer trucks, and similar equipment. The plant will match the specifications of the plant located in Washtenaw County, known as the Pleasant Lake Aggregates (PLA) site, with the addition of a crusher. To estimate potential sound levels at the proposed Site, sound measurements were measured at the PLA site during operating hours. The PLA site operates the following equipment:

- 22 stackers/conveyors;
- 6 screens;
- 4 feeders/hoppers;
- 1 log washer;
- 4 cyclones; and
- 2 classifiers.

On December 20, 2023, GZA mobilized to PLA and measured the sound level using five calibrated sound level meters (Quest SoundPro™ DL sound level meters). The sound level meters were positioned at an approximate hearing level at five locations: proximal to the production equipment and at 150, 300, 500, and 1,750 feet from the production equipment. During the sampling event, the production equipment operated from 11:00 to 13:00. The sound level meters measured the sound level using an "A weighting". The sound levels are reported as the average sound level or equivalent continuous sound level (Leq) that was measured at each of the five sampling locations. The sample location, location description, start and stop time, and the average recorded sound level measured in A-weighted decibels (dBA) is provided in Table A, below.

Table A. Noise Sampling Collected at PLA Site on December 20, 2023.

Sample Location	Location Description	Start Time	Stop Time	Average Sound Level (dBA) (No production equipment operating)	Average Sound Level (dBA) (production equipment operating)	Overall Average Sound Level (dBA) (Total Sampling Period)
M1	Proximal to operating equipment	7:13:51	13:16:15	66.6	66.9	66.7
M2	150 feet from operating equipment	7:33:06	13:02:47	Not available	Not available	54.2
M3	300 feet from operating equipment	7:59:33	13:31:39	45.9	49.2	48.9
M4	500 feet from operating equipment	10:09:33	13:40:51	44.0	47.2	43.3
M5	1,750 feet from operating equipment (at east property line)	8:29:29	13:51:25	41.8	42.5	42.1

The average sound levels measured during the sampling event at PLA ranged from 66.7 dBA proximal to the operating equipment to 41.8 dBA 1,750 feet from the equipment at the east property line. The differences in the sound levels measured when the production equipment was operating compared to not were minimal; however, a distance reduction in the sound levels from the plant operations were considerable.

NOISE ESTIMATION

The proposed Norvell Township processing operation will also include a crusher that was not present or operating at PLA when the sound levels were recorded. Stone crushers are typically the loudest part of the mining and processing operations; therefore, we also estimated the noise levels attributed to the crusher at potential receptor locations. Sound levels are not additive, i.e. the sound generated by the proposed operation is not simply the sound levels at PLA mathematically added to the sound generated by a stone crusher. Rather the sound levels generated by the loudest source of sound, in this case the crusher, is the determining factor in the overall sound levels encountered at the potential receptor locations.

It is GZA's understanding that a Kleeman Mobicone MCO 110(i) Pro track-mounted cone crusher or a Kleeman Mobirex MR130(i) Pro track-mounted impact crusher may be utilized. Sound level readings related to either of these specific crushers were not provided in the manufacturer's specification and technical documents. GZA identified noise readings provided for the Kleeman Mobicat MC 110(i) EVO2 mobile jaw crusher.[1] The manufacturer provided a maximum noise reading of 90 decibels (dB), measured near the operating crusher without a noise protection package. GZA assumed the noise reading was measured 1 foot from the system operating at normal speed. The 90 dB value is consistent with other crushers evaluated by GZA.

[1] https://www.wirtgen-group.com/binary/full/o195131v101_MOBICAT_MC110_EVO2_enUS.pdf.

SPLs are expressed in dB, a measure of the relative loudness of sounds in air at various frequencies using a logarithmic scale. Sound is also measured on the A-weighted scale with units of dBA to account for the sensitivity of the human ear to different frequencies. Several factors can affect sound levels, including distance and obstructions or barriers between the source and the receptor.

When estimating the sound level at a receptor, the inverse square law is utilized. The inverse square law states that for every doubling of the distance between the noise source and the receptor, the SPL will be reduced by 6 dB, as measured at the receptor. The inverse square law assumes the noise travels within a free field, which is a region in space where sound may propagate free from any form of obstruction and, thus, overestimates the true noise levels in the natural environment where ground cover and physical barriers or obstructions will decrease the perceived noise level. The inverse square law is utilized to estimate the sound level at neighboring residences and other identified receptor locations using the distance between the receptor and the crusher. The distances between the crusher and potential receptor locations were provided to GZA by the Client, the resulting dB reductions are summarized in **Table 1**.

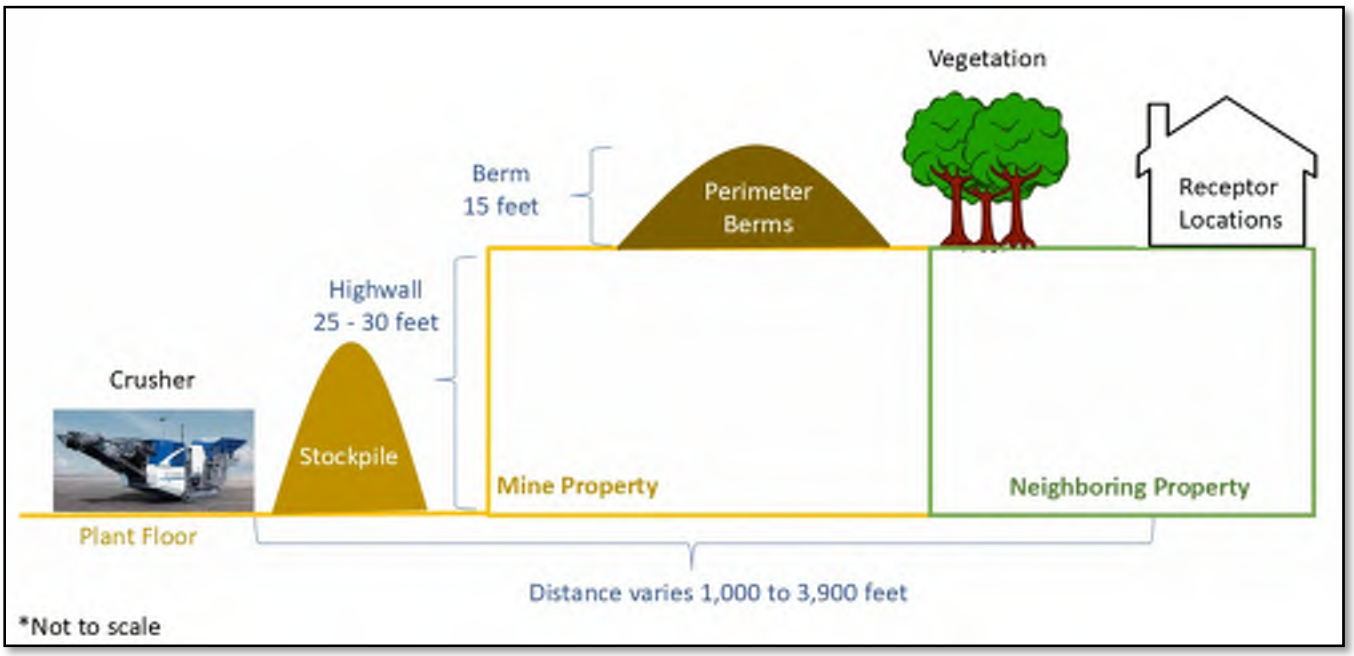
Changes in topography, terrain, ground cover, and obstructions or physical barriers between the source and a potential receptor further reduces the noise level perceived at a receptor location. Shielding of the sound waves refers to objects that will create a sound barrier or obstruction between the noise source and the receptor. There are proposed perimeter berms around the plant area with a height of 15 feet. Additionally, the vertical pit bank walls are anticipated to range between 25 and 30 feet from the crusher equipment on the pit floor to the neighboring receptors. The United States Department of Transportation's (DOT) Federal Highway Administration (FHWA) reports that barriers such as trees, walls, and mounds at eye-level (approximately 1.5 meters or 5 feet) will reduce the noise level received by the receptor by 5 dB and each additional 1.5 meters (5 feet) in height of the barrier will decrease the noise level by 1.5 dB with a maximum noise attenuation, or reduction, of up to 15 dB.[2,3]

In reviewing aerial images of the Site and surrounding areas, which included the receptors located north, east, and south, trees and other vegetative ground covering were identified that will provide an additional sound barrier for some receptors. GZA notes that most of the adjacent properties do not have trees between the mine and receptor. Based on information obtained from the FHWA, 30 meters (approximately 100 feet) of dense vegetation (measured horizontally) can reduce noise levels by 3 to 5 dB.[3]

The measurements provided on the attached **Table 1** show noise reductions for three of eight receptor locations north of the mine labeled 2, 3, and 5 due to vegetation. **Figure 2** below is a rendering of the Site boundary, location, perimeter berm size, and positioning of the crusher equipment in relation to the potential receptor locations.

[2] US DOT, FHWA, Office of Planning, Environment, & Realty, Highway Traffic Noise, http://www.fhwa.dot.gov/environment/noise/noise_barriers/design_construction/keepdown.cfm.
[3] https://www.fhwa.dot.gov/ENVIRonment/noise/noise_compatible_planning/federal_approach/audible_landscape/al04.cfm.

Figure 2 - Rendering of Site and Positioning of Crusher in Relation to the Potential Receptor Locations*



To calculate SPLs at the potential receptors, closest property line, and neighboring residential properties, GZA made the following assumptions in its calculations:

- The sound level measured 1 foot from the proposed operating crusher is 90 dB.
- The distance from the crusher to each potential receptor location was measured using aerial photographs to range from 1,000 to 3,900 feet, as summarized in **Table 1**.
- Material will be stockpiled within the plant area at a height of 30 feet.
- The vertical mine bank/walls are expected to range from 25 to 30 feet.
- Perimeter berms will be 15 feet high around the plant and mining area.
- DOT's FHWA reports that a berm, fence, or other vertical barrier between the source and receptor will reduce the noise level received by the receptor by 5 dB for the initial 5 feet of vertical barrier and each additional 1.5 meters (5 feet) in height of the barrier will decrease the noise level by 1.5 dB with a maximum noise attenuation, or reduction, of up to 15 dB. Therefore, because the vertical distance from the plant floor to top of the perimeter berms is anticipated to range from 40 to 45 feet, a vertical noise reduction value of -15 dB was applied to the estimated sound level.
- Trees and vegetation present between the mine and receptors to the north resulted in a minimum noise reduction of 3 dB, which was applied for every 100 feet of dense vegetation identified.

Table 1 provides the estimated sound levels that may be perceived outside of the potential receptor and residential locations. The calculated sound levels estimated at the eight potential receptors, as shown in **Figure 1** and **Table 1**, range from 0 to 8 dB. **Table 2** provides a general reference to describe typical SPLs, measured as dB, associated with different noise sources. The estimated noise range is less than a whisper (**Table 2**).

The Norvell Township Ordinance No. 22, *Anti-Noise and Public Nuisance Ordinance*, with an effective date of June 10, 1987 ("Norvell Township Noise Ordinance"), identifies noise limitations for residential, agricultural, and industrial zoning districts. It is GZA's understanding that the proposed Site is zoned as an agricultural zoning district with a noise limitation between 7:00 a.m. and 10:00 p.m. of 65 dB(A). The Norvell Township Noise Ordinance further states that an area is deemed a residential zoning district if "…agricultural districts located within 1000 feet of any dwelling under separate ownership." The residential noise limitation is 55 dB(A) from 7:00 a.m. to 10:00 p.m. Based on the sound measurements collected at the PLA site and the estimated noise levels associated with the operation of the crusher and perceived at potential receptors, the sound levels at the potential receptors would be below the agricultural and residential zoning noise limitations.

We appreciate the opportunity to submit this report. Should you have any questions or comments, please contact the undersigned at your convenience.

Respectfully,

GZA GeoEnvironmental, Inc.

Kimberly A. Hoppe Parr, Ph.D., CIH
Senior Project Manager

Mark J. Krumenacher, P.G.
Senior Principal

J:\158600to158699\158691\UPDATE Noise Estimate Report 2.2025\FINAL 20.0158691.01 Focused Noise Est Rpt_Brooklyn MI 2-28-25.docx

Attachments: Tables 1 and 2
Figure 1
Limitations

cc: Mr. Thomas E. Green, P.E., Edward C. Levy Co.

TABLES

TABLE 1
Proposed Crusher
Brooklyn, Michigan

Location	Distance Reduction from Initial Sound = 90 dB		Reduction in Sound by Vertical Highwall, Perimeter Berm, and Vegetation							
	Approximate Distance Between Receptor and Crusher Location[a] (feet)	Sound Level after Distance Reduction in Free Field[b] (dB)	Direction of Receptor from Crusher	Vertical Height of Highwall (feet)	Perimeter Berm Height[c] (feet)	Combined Vertical Height (feet)	Anticipated Noise Reduction from Vertical Barrier[c] (feet)	Width of Vegetation Between Crusher and Receptor (feet)	Vegetation Reduction[d] (dB)	Estimated Sound Level[e] (dB)
1	2,200	23.2	S	25-30	15	40-45	-15	0	0	8
2	1,100	29.2	N	25-30	15	40-45	-15	430	-12.9	1
3	1,000	30	N	25-30	15	40-45	-15	370	-11.1	4
4	3,900	18.2	NE	25-30	15	40-45	-15	0	0	3
5	3,000	20.5	N	25-30	15	40-45	-15	1,430	-42.9	0
6	2,700	21.4	SE	25-30	15	40-45	-15	0	0	6
7	2,700	21.4	SE	25-30	15	40-45	-15	0	0	6
8	3,400	19.4	SE	25-30	15	40-45	-15	0	0	4

Notes:

(a) Approximate distances between receptor locations and proposed crusher location were provided to GZA.

(b) Sound level after distance reduction attributed to distance from the point source was calculated using the inverse square law (http://hyperphysics.phy-astr.gsu.edu/hbase/Acoustic/isprob2.html)

(c) Sound level reductions attributed to shielding from the height of the vertical highwall and perimeter berm were combined for a total of -15 dB, as obtained from the US DOT, FHWA.

(d) Sound level reductions attributed to shielding from vegetation were calculated using reductions obtained from the US DOT, FHWA.

(e) Estimated sound levels at potential receptor levels after accounting for distance and sound reduction(s).

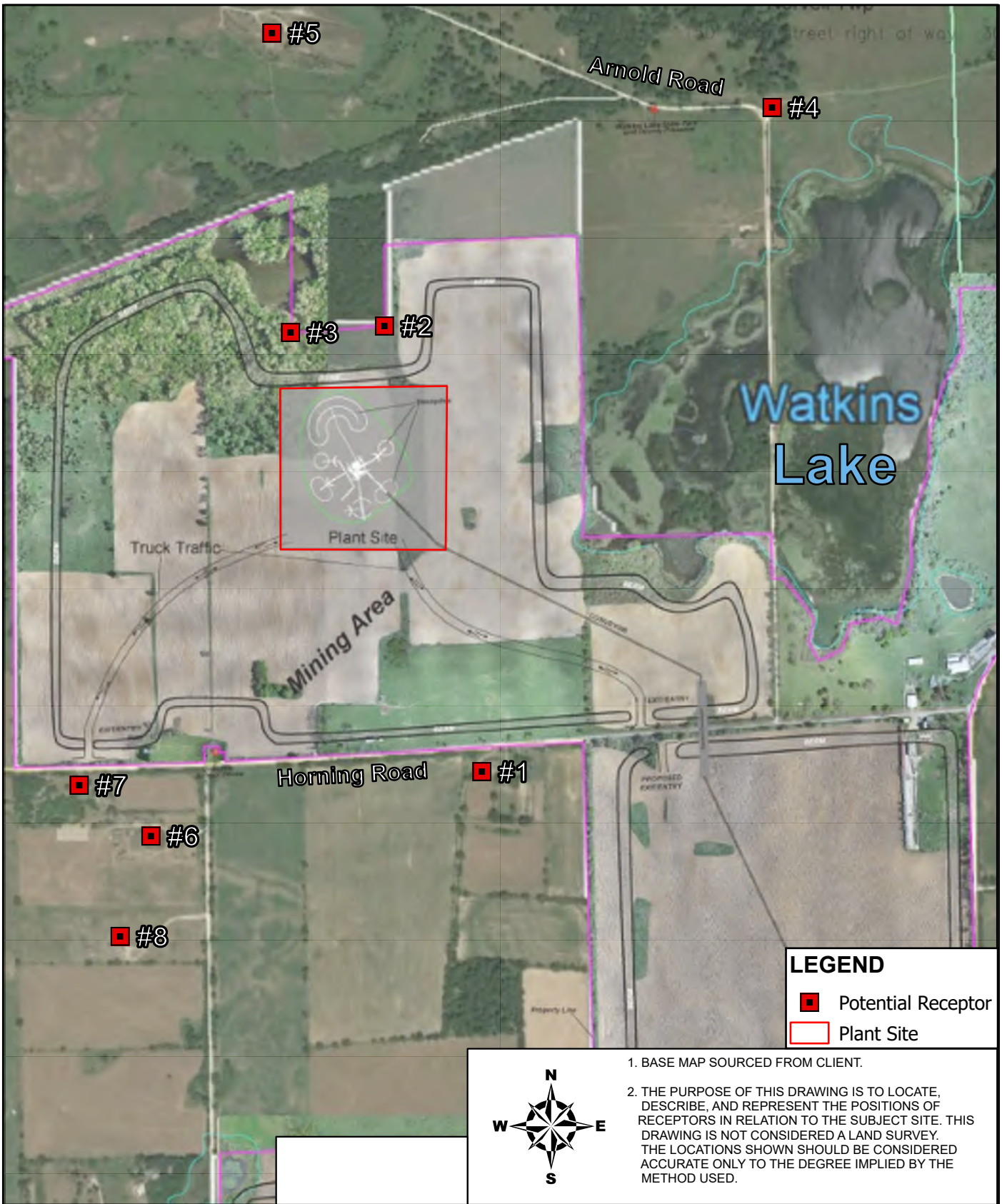
TABLE 2
dB Levels of Common Noise Sources

SPL (dB)	Noise Source
150	Firework
130	Jet at Take-off, Shotgun Firing
120	Thunderclap
110	Chain Saw
100	Farm Tractor, Train
95	Motorcycle
90	Lawnmower, Food Blender
80	City Traffic, Garbage Disposal
70	Business Office, Washing Machine, Dishwasher
60	Conversational Speech, Air Conditioner [half as loud as 70 dB]
55	Crickets/tree frogs
50	Quiet suburb, Conversation at Home [one-fourth as loud as 70 dB]
40	Refrigerator hum, Library [one-eighth as loud as 70 dB]
30	Whisper, Quiet rural area [one-sixteenth as loud as 70 dB]
20	Whisper at 5 feet, Rustling Leaves

Sources:

1. Centers for Disease Control and Prevention at: https://www.cdc.gov/nceh/hearing_loss/what_noises_cause_hearing_loss.html.
2. Purdue University, Department of Chemistry at: https://www.chem.purdue.edu/chemsafety/Training/PPETrain/dblevels.htm.

FIGURE



1. BASE MAP SOURCED FROM CLIENT.

2. THE PURPOSE OF THIS DRAWING IS TO LOCATE, DESCRIBE, AND REPRESENT THE POSITIONS OF RECEPTORS IN RELATION TO THE SUBJECT SITE. THIS DRAWING IS NOT CONSIDERED A LAND SURVEY. THE LOCATIONS SHOWN SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.

UNLESS SPECIFICALLY STATED BY WRITTEN AGREEMENT, THIS DRAWING IS THE SOLE PROPERTY OF GZA GEOENVIRONMENTAL, INC. (GZA). THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR THE USE BY GZA'S CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA, ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY THE CLIENT OR OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA.

0 500 1,000 2,000

SCALE IN FEET

PROPOSED SAND AND GRAVEL PIT
14435 HORNING ROAD
BROOKLYN, MI

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR:
EDW. C. LEVY CO.
9300 DIX AVENUE
DEARBORN, MICHIGAN

SITE LAYOUT AND POTENTIAL RECEPTORS

PROJ MGR: KP	REVIEWED BY: KP	CHECKED BY: MK	FIG 1
DESIGNED BY: ANM	DRAWN BY: ANM	SCALE: SEE ABOVE	
DATE: 02/12/2025	PROJECT NO: 20.0158691	REVISION NO:	SHEET NO: 1 OF 1

© 2025 - GZA GeoEnvironmental, Inc. \\GZAWaukesha\Jobs\158600to158699\158691\Figures\ArcGIS 2024\20.0158691.gbd\Figure 1_Noise Report 2024\Figure 1_Noise Report 2024.aprx, February 12, 2025 - 11:26 AM, Andrew.Mackensen

ATTACHMENT 1

Limitations

LIMITATIONS

Use of Report

1. GZA GeoEnvironmental, Inc. (GZA) has prepared this report on behalf of, and for the exclusive use of Client for the stated purpose(s) and location(s) identified in the report. Use of this report, in whole or in part, at other locations, or for other purposes, may lead to inappropriate conclusions and we do not accept any responsibility for the consequences of such use(s). Further, reliance by any party not identified in the agreement, for any use, without our prior written permission, shall be at that party's risk, and without any liability to GZA.

Standard of Care

2. GZA's services were performed using the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. No warranty, expressed or implied, is made.

3. The observations, findings, conclusions, and recommendations in this report were made under the conditions observed or discovered at the site during our visit(s) and described herein. The conclusions presented in this report were based solely upon the services described in this report and not upon scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by Client. Where and when applicable, the conclusions and recommendations provided in this report are based, in part, upon observations made on-site and the data obtained from a limited number of indoor and/or outdoor biological, chemical, or physical samples collected from different locations during various times of day and are contingent upon their validity. The nature and extent of variations between these sample results may not become evident until further investigation has been conducted. If variations or other latent or hidden conditions then appear evident after further investigation, it may be necessary to reevaluate the recommendations of this report. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their distribution may occur due to the life cycle or decomposition of these contaminants and ambient conditions. Should additional data become available in the future, these data should be reviewed by GZA, and the conclusions and recommendations presented therein modified accordingly.

4. Where quantitative laboratory analyses have been conducted by an outside laboratory, GZA has exclusively relied upon the data provided and has not conducted an independent evaluation of the reliability of these data, including, but not limited to, the analytical methods, equipment, or analyst(s). GZA utilizes laboratories which maintain accreditation by the American Industrial Hygiene Association or other appropriate accreditation(s), certification(s), or licensure.

5. Chemical, physical, or biological analyses, or a combination thereof, may have been performed for specific parameters during the course of this study, as detailed in the report. Additional constituents for which searches were not conducted during the current study may be present at the site.

Compliance with Codes and Regulations

6. The regulatory compliance status described in this report, where and when applicable, has been evaluated based on our interpretation of industry guidelines and regulations, and where appropriate, the interpretations provided by the applicable regulatory authority personnel at the time of this work. In some cases, these interpretations require subjective judgment and GZA cannot guarantee or warrant that all applicable regulatory authority personnel will interpret the regulations in the same manner as GZA and the agency personnel with whom we have spoken have interpreted them. Applicable regulatory authorities' interpretations, requirements and enforcement policies vary from district office to district office, from state to state and between federal and state agencies. In

addition, statutes, rules, standards, regulations and interagency and intra-agency policies may be changed from time to time.

Interpretation of Data

7. The purpose of our work was to evaluate airborne concentrations of specific contaminants for comparison to current available industry recommended and/or regulatory guidelines or exposure limits if and where applicable. No attempt was made to evaluate potential health effects among any exposed person or group of people.

8. GZA's findings and conclusions must not be considered as scientific certainties, but rather as our professional opinions concerning the significance of the limited data gathered during the course of the work and the visual observations made on-site. No warranty, express or implied, is made. Specifically, GZA does not and cannot represent that the site contains no hazardous material, oil, or other latent or hidden conditions beyond that observed by GZA during its work. Additionally, GZA makes no warranty that any response action or recommended action will achieve all of its objectives or that the findings of this work will be upheld by an applicable regulatory authority.

9. The conclusions and recommendations contained in this report are based on limited environmental sampling and were arrived at in accordance with generally accepted standards of industrial hygiene and toxicology practices. The sampling results can be considered representative of the conditions present at the site only during the sampling period and only to the extent the sampling results are considered accurate, as indicated in the report. Sampling results are not necessarily representative of conditions at the site at times other than during the sampling period, or at locations at the site other than where sampling is performed.

New Information

10. In the event that the Client or others authorized to use this report obtain information on environmental regulatory compliance issues at the site not contained in this report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this work, may modify the conclusions stated in this report.

Additional Services

11. GZA recommends that we be retained to provide further investigation or abatement, if necessary, which would allow GZA to: (1) observe compliance with the concepts and recommendations contained herein; (2) evaluate whether the manner of implementation creates a potential new finding; and (3) evaluate whether the manner of implementation affects or changes the conditions on which our opinions were made.