



Consulting Engineers & Scientists

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**PHASE I ENVIRONMENTAL SITE ASSESSMENT**

**MCDONALD'S #211425  
NWQ EAST APPLE AVENUE & SOUTH MILLIRON ROAD  
MUSKEGON, MUSKEGON COUNTY, MICHIGAN**

**Project No. 94089085.34  
Report Date: November 7, 2008**

***Prepared For:***

**McDonald's USA, LLC  
Oak Brook, Illinois**

***Prepared By:***

**Terracon  
Dallas, Texas**

November 7, 2008



Consulting Engineers & Scientists

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Vice President US Restaurant Development  
c/o  
Mr. Bruce Crown  
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Re: Phase I Environmental Site Assessment  
McDonald's #211425  
NWQ East Apple Avenue & South Milliron Road  
Muskegon, Muskegon County, Michigan 49442  
Project No. 94089085.34

Dear Mr. Carras:

Terracon Consultants, Inc. (Terracon) is pleased to submit the enclosed Phase I Environmental Site Assessment report for the above-referenced site. This assessment was performed in accordance with our proposal dated September 16, 2008.

We appreciate the opportunity to perform these services for you. Please contact us if you have questions regarding this information or if we can provide any other services.

Sincerely,

**Terracon**

A handwritten signature in cursive script, appearing to read "Lindy M. Breedon".

Lindy M. Breedon  
Environmental Scientist

A handwritten signature in cursive script, appearing to read "John B. Sallman III".

John B. Sallman III, P.G.  
Environmental Professional  
Principal

Attachments:

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## COMMON ACRONYMS <sup>1</sup>

ACM .....	Asbestos containing material
AST .....	Aboveground storage tank
ASTM .....	American Society for Testing and Materials
AUL .....	Activity and use limitation
BGS.....	Below ground surface
BTEX.....	Benzene, toluene, ethylbenzene, and xylenes
CERCLA.....	Comprehensive Environmental Response, Compensation, and Liability Act
CFR.....	Code of Federal Regulations
DOT.....	US Department of Transportation
EPA.....	US Environmental Protection Agency
HREC.....	Historical recognized environmental condition
LUST .....	Leaking underground storage tank
MCL.....	Maximum contaminant level
MSDS.....	Material safety data sheet
NGVD.....	National Geodetic Vertical Datum
NOV .....	Notice of violation
NPL .....	National Priority List
NRCS.....	US Natural Resource Conservation Service
OSHA.....	Occupational Safety and Health Administration
PCB.....	Poly-chlorinated biphenyl
RCRA.....	Resource Conservation and Recovery Act
REC.....	Recognized environmental condition
SPCC .....	Spill Prevention, Control and Countermeasure
SWPPP .....	Stormwater pollution prevention plan
TEPH.....	Total extractable petroleum hydrocarbons
TPH.....	Total petroleum hydrocarbons
TVPH.....	Total volatile petroleum hydrocarbons
TRI .....	Toxic release inventory
TSCA.....	Toxic Substances Control Act
USGS .....	US Geological Survey
UST .....	Underground storage tank
VCP.....	Voluntary cleanup program
VOC .....	Volatile organic compound

### Units of measure

sq ft or ft <sup>2</sup> .....	square feet
mg/kg .....	milligrams per kilogram
mg/l .....	milligrams per liter
ug/l .....	micrograms per liter
ppb .....	parts per billion
ppm.....	parts per million

<sup>1</sup> A list of acronyms and definitions is included in Appendix B.

**PHASE I ENVIRONMENTAL SITE ASSESSMENT  
MCDONALD'S #211425  
NWQ EAST APPLE AVENUE & SOUTH MILLIRON ROAD  
MUSKEGON, MUSKEGON COUNTY, MICHIGAN**

**Project No. 94089085.34  
Report Date: November 7, 2008**

**EXECUTIVE SUMMARY**

This Phase I ESA was performed in accordance with our proposal dated September 16, 2008, and was conducted consistent with the procedures included in ASTM E 1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The ESA was conducted under the supervision or responsible charge of John B. Sallman III, P.G., environmental professional. Lindy M. Breedon performed the site reconnaissance on October 14, 2008.

A cursory summary of findings is provided below. It should be recognized that details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein.

- The site is located in the northwest quadrant (NWQ) of East Apple Avenue and South Milliron Road in Muskegon, Muskegon County, Michigan. The site is a 6.007-acre tract of land that consists of waist- to shoulder-high native vegetation and forested land. The site has been improved with a stormwater detention pond and partial perimeter fencing.
- Based on a review of historical information, the site has consisted of agricultural land and/or vacant land and/or forested land since at least 1953.

The property to the adjacent north of the site has consisted of agricultural land and/or vacant land and residential buildings since at least 1953. The property to the adjacent east of the site has consisted of agricultural land and/or vacant land since at least 1953 and the present-day Muskegon Charter Township Softball World facility since the late 1980s. The property to the adjacent southeast of the site has consisted of agricultural land and/or vacant land and/or forested land, and residential buildings from at least 1953 until the development of the present-day McDonald's restaurant building and the present-day BP gas station in the early 2000s. The property to the adjacent south has consisted of agricultural land and/or vacant land from at least 1953 until the development of the western portion of a former auto salvage yard in the early 1970s, and the western portion of the present-day U-Haul & Hitch World facility in the late 1980s. The property to the adjacent west of the site consisted of agricultural land and/or vacant land from at least 1953 until the development of the present-day Powerhouse Gym and associated parking lot in the mid 1990s. East Apple Avenue and South Milliron Road have been located to the adjacent south and east of the site, respectively, since at least 1953.

## EXECUTIVE SUMMARY (cont.)



- The regulatory database review indicates that two (2) Michigan Department of Environmental Quality (MDEQ) Underground Storage Tank (UST) facilities and two (2) MDEQ Leaking UST (LUST) facilities were identified within the specified search radii. Based on distance, environmental setting and facility characteristics, as stated in the text of the report, the identified facilities and inquiry results from the local agencies do not appear to constitute a REC to the site at this time.

### Recommendations

Based on the scope of services, limitations and findings of this assessment, Terracon did not identify RECs which, in our opinion, warrant additional investigation at this time.

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MCDONALD'S #211425  
NWQ EAST APPLE AVENUE & SOUTH MILLIRON ROAD  
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**Project No. 94089085.34  
Report Date: November 7, 2008**

**1.0 INTRODUCTION**

**1.1 Site Description**

**Site Description**

<b>Site Name</b>	McDonald's #211425
<b>Site Location/Address</b>	NWQ East Apple Avenue & South Milliron Road, Muskegon, Muskegon County, Michigan
<b>Land Area</b>	6.007 acres
<b>Site Improvements</b>	A stormwater detention pond and partial perimeter fencing.

The site location is depicted on Figure 1 of Appendix A, which was reproduced from a portion of the USGS 7.5-minute series topographic map. A Site Plan of the site and adjoining properties is included as Figure 2 of Appendix A. Acronyms and terms used in this report are described in Appendix B.

**1.2 Scope of Services**

This Phase I ESA was performed in accordance with our proposal dated September 16, 2008, and was conducted consistent with the procedures included in ASTM E 1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The purpose of this ESA was to assist the client in developing information to identify RECs in connection with the site as reflected by the scope of this report. This purpose was undertaken through user-provided information, a regulatory database review, historical and physical records review, interviews, including local government inquiries, as applicable, user-provided information, and a visual noninvasive reconnaissance of the site and adjoining properties. Limitations, ASTM deviations, and significant data gaps (if identified) are evident from reviewing the applicable scope of services and the report text.

**1.3 Standard of Care**

This ESA was performed in accordance with generally accepted practices of this profession, undertaken in similar studies at the same time and in the same geographical area. We have

endeavored to meet this standard of care, but may be limited by conditions encountered during performance, a client-driven scope of work, or inability to review information not received by the report date. Where appropriate, these limitations are discussed in the text of the report, and an evaluation of their significance with respect to our findings has been conducted.

Phase I ESAs, such as the one performed at this site, are of limited scope, are noninvasive and cannot eliminate the potential that hazardous, toxic, or petroleum substances are present or have been released at the site beyond what is identified by the limited scope of this ESA. In conducting the limited scope of services described herein, certain sources of information and public records were not reviewed. It should be recognized that environmental concerns may be documented in public records that were not reviewed. No ESA can wholly eliminate uncertainty regarding the potential for RECs in connection with a property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs. No warranties, express or implied, are intended or made. The limitations herein must be considered when the user of this report formulates opinions as to risks associated with the site or otherwise uses the report for any other purpose. These risks may be further evaluated – but not eliminated – through additional research or assessment. We will, upon request, advise you of additional research or assessment options that may be available and associated costs.

#### **1.4 Additional Scope Limitations, ASTM Deviations and Significant Data Gaps**

Based upon the agreed-on scope of services, this ESA did not include subsurface or other invasive assessments, business environmental risk evaluations, or other services not particularly identified and discussed herein. Reasonable attempts were made to obtain information within the scope and time constraints set forth by the client; however, in some instances, information requested is not, or was not, received by the issuance date of the report. Information obtained for this ESA was received from several sources that we believe to be reliable; nonetheless, the authenticity or reliability of these sources cannot and is not warranted hereunder. This ESA was further limited by the following:

- *Credentials of the company (Statement of Qualifications) have not been included in this report but are available upon request.*
- *Pertinent documents are referred in the text of this report, and a separate reference section has not been included.*
- *Historic information was not provided back to 1940. Uses of the site were described only as far back as 1953 because the site was undeveloped as of this date, and at the direction of the client, land title records were not reviewed.*

- *A written request was submitted to the local government agency regarding documented recognized environmental conditions on the site. Records were not requested for off-site properties.*
- *Reasonable attempts were made to contact local government officials; however, at the issuance of this report, interviews with some local government officials were not performed.*

An evaluation of the significance of these limitations and missing information with respect to our findings has been conducted, and where appropriate, significant data gaps are identified and discussed in the text of the report. However, it should be recognized that an evaluation of significant data gaps is based on the information available at the time of report issuance, and an evaluation of information received after the report issuance date may result in an alteration of our conclusions, recommendations, or opinions. We have no obligation to provide information obtained or discovered by us after the issuance date of the report, or to perform any additional services, regardless of whether the information would affect any conclusions, recommendations, or opinions in the report. This disclaimer specifically applies to any information that has not been provided by the client.

This report represents our service to you as of the report date and constitutes our final document; its text may not be altered after final issuance. Findings in this report are based upon the site's current utilization, information derived from the most recent reconnaissance and from other activities described herein; such information is subject to change. Certain indicators of the presence of hazardous substances or petroleum products may have been latent, inaccessible, unobservable, or not present during the most recent reconnaissance and may subsequently become observable (such as after site renovation or development). Further, these services are not to be construed as legal interpretation or advice.

### **1.5 Reliance**

This ESA report is prepared for the exclusive use and reliance of McDonald's USA, LLC. Use or reliance by any other party is prohibited without the written authorization of McDonald's USA, LLC and Terracon Consultants, Inc. (Terracon).

Reliance on the ESA by the client and all authorized parties will be subject to the terms, conditions and limitations stated in the proposal, ESA report, and Terracon's Agreement for Services. The limitation of liability defined in the Agreement for Services is the aggregate limit of Terracon's liability to the client and all relying parties.

Continued viability of this report is subject to ASTM E 1527-05 Sections 4.6 and 4.8. If the ESA will be used by a different user (third party) than the user for whom the ESA was

originally prepared, the third party must also satisfy the user's responsibilities in Section 6 of ASTM E 1527-05.

## **1.6 Client Provided Information**

Subsequent to the site reconnaissance, client representative Ms. Debbie Gordon, Development Coordinator for McDonald's USA, LLC in Michigan, provided the following information.

### **1.6.1 Specialized Knowledge or Experience**

Ms. Gordon was not aware of specialized knowledge or experience that is material to RECs in connection with the site.

### **1.6.2 Actual Knowledge of Environmental Liens or AULs**

Ms. Gordon did not have actual knowledge of environmental liens or AULs encumbering the site or in connection with the site.

### **1.6.3 Reason for Significantly Lower Purchase Price**

Ms. Gordon was not aware of a significantly lower purchase price because of the presence of hazardous substances or petroleum products.

### **1.6.4 Commonly Known or Reasonably Ascertainable Information**

Ms. Gordon was not aware of commonly known or reasonably ascertainable information within the local community about the site that is material to RECs in connection with the site.

### **1.6.5 Obvious Indicators of Contamination at the Site**

Ms. Gordon was not aware of obvious indicators that point to the presence or likely presence of contamination at the site.

## 2.0 PHYSICAL SETTING

### Physical Setting

PHYSICAL SETTING INFORMATION FOR SITE AND SURROUNDING AREA		SOURCE
Topography (Refer to Appendix A for an excerpt of the Topographic Map)		
Site Elevation	Approximately 650 to 655 feet (NGVD).	USGS Topographic Map, Muskegon East, Michigan Quadrangle Dated 1972 Photorevised 1980
Surface Runoff/ Topographic Gradient	Relatively flat; however, very gently sloping towards the southwest.	
Closest Surface Water	An unnamed tributary of Black Creek, approximately 650 feet to the west-southwest of the site.	
Soil Characteristics		
Soil Type	Roscommon and Au Gres sands, 0 to 6 percent slopes	USDA Natural Resources Conservation Service Web Soil Survey 2.0 accessed October, 2008 and Muskegon County, Michigan USDA, Natural Resources Conservation Service Soil Survey issued October 1968
Description	These two sandy soils occur together as a complex. Roscommon soils are poorly or very poorly drained and Au Gres soils are somewhat poorly drained. Permeability is rapid and available water capacity is low in these soils. Surface runoff is very slow or ponded. These soils have apparent seasonal high water tables near or above the soil surface from fall through spring.	
Geology/Hydrogeology		
Formation	Marshall Formation	Bedrock Geology of Michigan, Michigan Department of Natural Resources 1987
Description	The Marshall Formation consists of glacial materials chiefly derived from the Laurentian and Huronian terranes or from sedimentary rocks originally derived from these terranes.	
Estimated Depth to First Occurrence of Ground water	Approximately 1 to 5 feet below ground surface (bgs).	Michigan Department of Environmental Quality, Water Well and Pump Record website – water wells on adjacent properties
Primary Aquifer	Mississippian aquifer – sandstone	Groundwater Atlas of the U.S., Segment 9, Hydrologic Investigations Atlas 730-E, USGS, 1992
*Hydrogeologic Gradient	Not known – may be inferred to be parallel to topographic gradient (primarily to the southwest).	

\* The groundwater flow direction and the depth to shallow, unconfined groundwater, if present, would likely vary depending upon seasonal variations in rainfall and other hydrogeological features. Without the benefit of on-site groundwater monitoring wells surveyed to a datum, groundwater depth and flow direction beneath the site cannot be directly ascertained.



### 3.0 HISTORICAL USE INFORMATION

Terracon reviewed the following historical sources for indications of RECs. A summary of the historical review is included in Section 3.12. Copies of selected historical documents are included in Appendix C.

#### 3.1 Historical Topographic Maps

Readily available historical USGS topographic maps were reviewed to identify RECs in connection with the site. Reviewed historical topographic maps are summarized below.

- Muskegon East, Michigan, published 1972, photorevised 1980 (1:24,000)

#### Historical Topographic Maps

Direction	Description
Site	Undeveloped land (1972-1980).
North	Undeveloped land (1972-1980), several residential buildings (1972-1980).
East	South Milliron Road (1972-1980), followed by undeveloped land (1972-1980).
Southeast	Undeveloped land (1972-1980), three residential buildings (1972-1980), followed by East Apple Avenue and South Milliron Road (1972-1980).
South	East Apple Avenue (1972-1980), followed by undeveloped land (1972-1980), two residential buildings (1972-1980).
West	Undeveloped land (1972-1980).

#### 3.2 Historical Aerial Photographs

Selected historical aerial photographs from the United States Geological Survey (USGS) and the United States Department of Agriculture (USDA) were reviewed at approximately 10 to 15 year intervals, if readily available, to obtain information concerning the history of development on and near the site. Evaluation of these aerals may be limited by a photo's quality and scale. Selected photographs are summarized below.

- USGS, ID# N/A, 1953, 1"=500'
- USDA, ID# BEI-8AA-99, June 13, 1962, 1"=560'
- USDA, ID# 261211741091, September 25, 1974, 1"=705'
- USGS, ID# N/A, 1976, 1"=500'
- USDA, ID# 108R, 1981, 1"=770'
- USDA, ID# J-9, 1993, 1"=690'
- USGS, ID# N/A, 1997, 1"=500'

- USDA, ID# N/A, 2006, 1"=500'

### Historical Aerial Photographs

Direction	Description
Site	Agricultural land and/or vacant land (1953-2006), forested land (1974, 1981-2006), the present-day stormwater detention pond located on the northwest portion of the site (2006).
North	Agricultural land and/or vacant land (1953-2006), residential buildings (1953-2006), forested land (2006).
East	South Milliron Road (1953-2006), followed by agricultural land and/or vacant land (1953-2006), the present-day Muskegon Charter Township Softball World (1993-2006).
Southeast	Agricultural land and/or vacant land (1953-1997), residential buildings (1953-1997), forested land (1993-1997), the present-day McDonald's restaurant building (2006), the present-day <u>BP gas station</u> (2006), followed by East Apple Avenue and South Milliron Road (1953-2006).
South	East Apple Avenue (1953-2006), followed by agricultural land and/or vacant land (1953-1981), residential buildings (1962-1981), <u>the western portion of a former auto salvage yard</u> (1976-1981), <u>the western portion of the present-day U-Haul &amp; Hitch World facility</u> (1993-2006), the present-day Fun N Sun RV, Inc. facility (1993-2006).
West	Agricultural land and/or vacant land (1953-1962), grading activities (1974-1976), vacant land (1981-1993), the present-day Powerhouse Gym and associated parking lot (1997-2006).

The present-day BP gas station was identified on the 2006 aerial photograph and is further discussed in Section 4.1.

The western portion of a former auto salvage yard was identified on the 1976 and 1981 aerial photographs and is further discussed in Section 3.3.

The western portion of the present-day U-Haul & Hitch World facility was identified on the 1993 through 2006 aerial photographs and is further discussed in Section 4.1.

### 3.3 Historical City Directories

The Bresser's and Polk city directories used in this study were made available through the Grand Rapids Public Library and the State Library of Michigan in Lansing, Michigan (selected years reviewed: 1953, 1958, 1963, 1968, 1974/1975, 1978/1979, 1983/1984, 1988-1989, 1993/1994, 1998, 2003, and 2008) and were reviewed at approximate five year intervals, if readily available. Since these references are copyright protected, reproductions are not provided in this report. Street listings for the site vicinity were not available prior to 1974.

### Historical City Directories

Direction	Description
Site	No listings (1953-2008).
North	<b>885 South Milliron Road</b> – no listings (1953-1975), residential listings (1978-2008).
East	<b>878 South Milliron Road</b> – no listings (1953-1984), Softball World, Inc. (1988-2008). <b>930 South Milliron Road</b> – no listings (1953-1975), residential listings (1978-1989), no listings (1993-2008).
Southeast	<b>3578 East Apple Avenue</b> – no listings (1953-1979), Singleton Realty (1983-1984), no listings (1988-2008). <b>3586 East Apple Avenue</b> – no listings (1953-1998), McDonald's (2003-2008). <b>3592 East Apple Avenue</b> – no listings (1953-1968), residential listings (1974-1984), no listings (1988-1998), <u>Merle Boes, Inc. – gas station</u> (2003-2008).
South	<b>3525 East Apple Avenue</b> – no listings (1953-1968), residential listings (1974-1993), no listings (1994-2008). <b>3555 East Apple Avenue</b> – no listings (1953-1989), Fun N Sun RV, Inc. (1993-2008). <b>3587 East Apple Avenue</b> – no listings (1953-1968), <u>Big Jim Auto Salvage &amp; Service</u> (1974-1975), <u>Big Jim Singleton's</u> (1974-1984), <u>Singleton's Auto Salvage</u> (1983-1984), Singleton's House Rental (1983-1984), <u>U-Haul Center</u> (1988-2008).
West	<b>3480 East Apple Avenue</b> – no listings (1953-1994), Son Shine Designs – women's clothing (1998), Son Shine Design and Gardens – banquet rooms (2003), Powerhouse Gym (2008).

A Merle Boes, Inc. gas station was identified to the adjacent southeast of the site at 3592 East Apple Avenue in the 2003 and 2008 city directories and is further discussed in Section 4.1.

Big Jim Auto Salvage & Service (1974-1975), Big Jim Singleton's (1974-1984), and Singleton's Auto Salvage (1983-1984) were identified to the south of the site, across East Apple Avenue, in the 1974 through 1984 city directories. Based on a review of topographic maps and aerial photographs, the western portion of the former salvage yard was located approximately 140 feet south of the site in a topographic cross-gradient position relative to the site. This facility was not identified in the regulatory database. Based on its distance to the site and topographic cross-gradient position relative to the site, the former salvage yard located south of the site does not appear to constitute a REC in connection with the site at this time.

A U-Haul Center was identified to the south of the site, across East Apple Avenue, in the 1988 through 2008 city directories. Based on a review of aerial photographs, the western portion of the U-Haul Center is located approximately 140 feet. The U-Haul Center is further discussed in Section 4.1.

McDonald's #211425  
Project No. 94089085.34  
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### **3.4 Historical Fire Insurance Maps**

Historical fire insurance maps produced by the Sanborn Map Company were requested from Banks Environmental Data to evaluate past uses and relevant characteristics of the site and surrounding properties. Based upon inquiries to the above-listed Sanborn provider, Sanborn Maps were not available for the site.

### **3.5 Property Tax File Information**

Based on a review of information obtained from Muskegon County website, the current site owner is McDonald's Corporation.

### **3.6 Title Search**

At the direction of the client, a title search was not included as part of the scope of services. Unless notified otherwise, we assume that the client is evaluating this information outside the scope of this report.

### **3.7 Environmental Liens**

Environmental lien records recorded against the site were not provided by the client. At the direction of the client, performance of a review of these records was not included as part of the scope of services and unless notified otherwise, we assume that the client is evaluating this information outside the scope of this report.

### **3.8 Building Department Records**

The City of Muskegon's building records were not reviewed as the site is currently vacant. Historically, the site has consisted of agricultural land and/or vacant land, forested land and a stormwater detention pond.

### **3.9 Zoning/Land Use Records**

Based on a telephone interview with the Muskegon Charter Township Planning and Zoning Department, the site is currently zoned as Neighborhood Commercial (C-1).

### 3.10 Historical Interviews

The following individual was contacted regarding historical use of the site.

#### Interviewee

Interviewer	Interviewee/Phone #	Title	Date/Time
Lindy M. Breedon	Ms. Debbie Gordon / 734-335-9061	Site Owner Representative and Development Coordinator for McDonald's USA, LLC	November 6, 2008 / 2:00 pm

Ms. Debbie Gordon, Development Coordinator for McDonald's USA, LLC in Michigan, representative of the current site owner, was interviewed by email. Ms. Gordon has been associated with the current site since 1997. According to Ms. Gordon, the current site owner is McDonald's Corporation, which has owned the site since 1997, and the previous owner was Ernest and Alice McClathy. Ms. Gordon stated that the site has historically consisted of vacant land. Ms. Gordon was not aware of any current or former structures, septic tanks, USTs/ASTs, grease traps, landfills, or water wells on the site. Ms. Gordon was not aware of any environmental concerns on the site or in the site vicinity. Ms. Gordon was not aware of any pending, threatened or past environmental litigation, proceedings or notices of possible violations of environmental laws or liability in connection with the site.

Terracon reviewed a summary sheet provided electronically to Terracon by the client. The summary sheet consisted of notes regarding the site from a conference call between Ms. Gordon and a McDonald's team on June 25, 2008. Based on a review of this summary sheet, evidence of environmental concerns for the site was not identified.

### 3.11 Prior Report Review

Previous environmental reports, permits and registrations, or geotechnical reports for the site were not provided by the client to Terracon for review.

### 3.12 Historical Use Information Summary

Based on a review of historical information, the site has consisted of agricultural land and/or vacant land and/or forested land since at least 1953.

The property to the adjacent north of the site has consisted of agricultural land and/or vacant land and residential buildings since at least 1953. The property to the adjacent east of the site has consisted of agricultural land and/or vacant land since at least 1953 and the

present-day Muskegon Charter Township Softball World facility since the late 1980s. The property to the adjacent southeast of the site has consisted of agricultural land and/or vacant land and/or forested land, and residential buildings from at least 1953 until the development of the present-day McDonald's restaurant building and the present-day BP gas station in the early 2000s. The property to the adjacent south has consisted of agricultural land and/or vacant land from at least 1953 until the development of the western portion of a former auto salvage yard in the early 1970s, and the western portion of the present-day U-Haul & Hitch World facility in the late 1980s. The property to the adjacent west of the site consisted of agricultural land and/or vacant land from at least 1953 until the development of the present-day Powerhouse Gym and associated parking lot in the mid 1990s. East Apple Avenue and South Milliron Road have been located to the adjacent south and east of the site, respectively, since at least 1953.

#### **4.0 RECORDS REVIEW**

Regulatory database information was provided by Banks Environmental Data, a contract information services company. The purpose of the records review was to identify RECs in connection with the site. Evaluating identified regulatory facilities for potential vapor intrusion conditions was outside the scope of this assessment. Information in this section is subject to the accuracy of the data provided by the information services company and the date at which the information is updated, and the scope herein did not include confirmation of facilities listed as "unmappable" by regulatory databases.

In some of the following subsections, the words up-gradient, cross-gradient and down-gradient refer to the topographic gradient in relation to the site. As stated previously, the groundwater flow direction and the depth to shallow groundwater, if present, would likely vary depending upon seasonal variations in rainfall and the depth to the soil/bedrock interface. Without the benefit of on-site groundwater monitoring wells surveyed to a datum, groundwater depth and flow direction beneath the site cannot be directly ascertained.

#### **4.1 Federal and State/Tribal Databases**

Listed below are the facility listings identified on federal and state/tribal databases within the ASTM-required search distances from the approximate site boundaries. Database definition, descriptions, and the database search report are included in Appendix D.

### Federal and State Databases

Database	Description	Radius (Miles)	Facilities
<u>Federal</u>			
<b>NPL</b>	The NPL is the USEPA's database of uncontrolled or abandoned hazardous waste facilities that have been listed for priority remedial actions under the Superfund Program.	1.0	0
<b>NPL (Delisted)</b>	The NPL Delisted refers to facilities that have been removed from the NPL.	0.5	0
<b>CERCLIS</b>	The CERCLIS database is a compilation of facilities which the EPA has investigated or is currently investigating for a release or threatened release of hazardous substances pursuant to the CERCLA of 1980.	0.5	0
<b>CERCLIS/ NFRAP</b>	CERCLIS/NFRAP refers to facilities that have been removed and archived from EPA's inventory of CERCLA sites.	0.5	0
<b>RCRA CORRACTS/ TSD</b>	The USEPA maintains a database of RCRA facilities associated with treatment, storage, and disposal (TSD) of hazardous waste that are undergoing "corrective action." A "corrective action" order is issued when there has been a release of hazardous waste or constituents into the environment from a RCRA facility.	1.0	0
<b>RCRA Non-CORRACTS/ TSD</b>	The RCRA Non-CORRACTS/TSD Database is a compilation by the USEPA of facilities which report storage, transportation, treatment, or disposal of hazardous waste. Unlike the RCRA CORRACTS/TSD database, the RCRA Non-CORRACTS/TSD database does not include RCRA facilities where corrective action is required.	0.5	0
<b>RCRA Generators</b>	The RCRA Generators database, maintained by the EPA, lists facilities that generate hazardous waste as part of their normal business practices. Generators are listed as either large (LQG), small (SQG), or conditionally exempt (CESQG). LQG produce at least 1000 kg/month of non-acutely hazardous waste or 1 kg/month of acutely hazardous waste. SQG produce 100-1000 kg/month of non-acutely hazardous waste. CESQG are those that generate less than 100 kg/month of non-acutely hazardous waste.	0.1	0
<b>IC / EC</b>	A listing of sites with institutional and/or engineering controls in place. IC 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. EC 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.	Site	0

Database	Description	Radius (Miles)	Facilities
ERNS	The Emergency Response Notification System (ERNS) is a listing compiled by the EPA on reported releases of petroleum and hazardous substances to the air, soil and/or water.	Site	0
<u>State/Tribal</u>			
NPL	State-equivalent and/or Tribal-equivalent database of NPL sites	1.0	0
CERCLIS	State-equivalent and/or Tribal-equivalent database of CERCLIS sites. These facilities may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with facilities where cleanup will be paid for by potentially responsible parties.	0.5	0
SWF / LF	State and/or Tribal database of solid waste facilities located within Michigan. The database information may include the facility name, class, operation type, area, estimated operational life, and owner.	0.5	0
LUST	State and/or Tribal database of leaking underground storage tanks in state of Michigan.	0.5	2
UST	State and/or Tribal database of registered underground storage tanks in the State of Michigan which may include the owner and location of the USTs.	0.1	2
IC/EC	State and/or Tribal equivalent to the Federal IC / EC database list	Site	0
AUL	Activity and use limitations include both engineering controls and institutional controls.	Site	0
VCP	State and/or Tribal facilities included as Voluntary Cleanup Program sites.	0.5	0
Brownfields	State and/or tribal listing of Brownfield properties addressed by Cooperative Agreement Recipients or Targeted Brownfields Assessments.	0.5	0

In addition to the above ASTM-required listings, Terracon reviewed other federal, state, local and proprietary databases provided by the database firm. A list of the additional reviewed databases is included in the regulatory database report included in Appendix D.

The following table summarizes the site-specific information provided by the database and/or gathered by this office for identified facilities. Facilities are listed in order of proximity to the site. Additional discussion for selected facilities may follow the summary table.



### Listed Facilities

Facility Name and Location	Estimated Distance/Direction/Gradient	Database Listings
Unknown Name (southeast adjacent BP gas station) 3592 East Apple Avenue	Adjacent / Southeast / Cross-gradient	UST
U-Haul 3587 East Apple Avenue	140 feet / South / Cross-gradient	UST
Apple Mill Motors 3611 East Apple Avenue	400 feet / Southeast / Cross-gradient	LUST
Muskegon Commerce Bank 3289 East Apple Avenue	1,300 feet / West / Down-gradient	LUST

#### Unknown Name (southeast adjacent BP gas station)

A facility with an unknown name; however, corresponding to the BP gas station located to the adjacent southeast of the site, was identified to the adjacent southeast of the site and in a topographic cross-gradient position relative to the site. Based on a review of historical information, a gas station has been located on this property since the early 2000s. Based on area reconnaissance information, the tankhold is located approximately 155 feet south of the site, and the closest dispenser island is located approximately 135 feet south of the site. Based on a review of the regulatory database report and the Michigan Department of Environmental Quality (MDEQ) UST Storage Tank Facilities List website, one 20,000-gallon gasoline UST and on 15,000-gallon UST with two compartments for gasoline and diesel, were installed at the facility in December 1999. The USTs are constructed of double-walled composite steel and fiberglass and equipped with automatic tank gauging and interstitial monitoring. The UST piping is constructed of double-walled Geoflex and equipped with automatic line leak detectors and interstitial monitoring. A release at this facility has not been reported to the MDEQ. Based on its topographic cross-gradient position relative to the site, the distance to the tankhold and the closest dispenser island, and its non-LUST status, the BP gas station located southeast of the site does not appear to constitute a REC in connection with the site at this time.

#### U-Haul

A U-Haul facility was identified approximately 140 feet south of the site, across East Apple Avenue, in a topographic cross-gradient position relative to the site. Based on a review of historical information, U-Haul had been at this location since the late 1980s. Prior to the present-day U-Haul, this facility operated as an auto salvage yard, previously discussed in Section 3.3. Based on a review of the regulatory database report and the MDEQ UST Storage Tank Facilities List website, the U-Haul facility formerly operated 4 USTs (one 1,000-gallon kerosene UST, one 8,000-gallon diesel UST, and two 10,000-gallon gasoline USTs), which were installed in April 1984 and removed from the ground between on

February 3, 1995. The location of the former USTs is unknown. The USTs were constructed of fiberglass-reinforced plastic (FRP) and the associated piping was constructed of galvanized steel. Tank/pipe release detection methods and spill/overflow prevention measures were not reported in the regulatory database report or on the MDEQ website. A release at this facility was not observed or reported to the MDEQ during the UST removal process.

Based on a review of the regulatory database report, one liquid propane gas AST with an unknown volume was formerly located at the facility during an unknown time. This former AST has been removed from the facility; however, its former location is unknown. In addition, two 1,000-gallon liquid propane gas ASTs are listed as currently in use. The date of installation of these two ASTs is unknown. Based on Terracon's area reconnaissance, the current ASTs are located approximately 400 feet south of the site and are constructed of steel.

Based on its topographic cross-gradient position relative to the site, the distance to the site, the removal of the USTs, its non-LUST status, and the characteristics of propane gas (not a liquid at standard temperature and pressure), the U-Haul facility located south of the site does not appear to constitute a REC in connection with the site at this time.

#### Remaining Facilities

The remaining facility listings do not appear to represent RECs to the site at this time based upon regulatory status, apparent topographic gradient, and relative distance from the site.

Unmapped facilities are those that do not contain sufficient address or location information to evaluate the facility listing locations relative to the site. The report listed six facilities in the unmapped section. Determining the location of unmapped facilities is beyond the scope of this assessment; however, none of these facilities were identified as the site. These facilities are listed in the database report in Appendix D.

## **4.2 Local Agency Inquiries**

### **4.2.1 Muskegon Fire Department**

The City of Muskegon Fire Department was contacted via facsimile regarding environmental records or information indicating environmental concerns for the site. At the issuance of this report, a response has not been received from the Fire Department.

#### **4.2.2 Muskegon City Clerk**

The City of Muskegon City Clerk was contacted by facsimile regarding environmental records or information indicating environmental concerns for the site. Based on a review of the letter response, the City Clerk indicated that the site is not located within the city of Muskegon city limits. At the issuance of this report, a response has not been received from any applicable department.

#### **4.2.3 Muskegon Charter Township Fire Department**

The Muskegon Charter Township Fire Department was contacted via facsimile regarding environmental records or information indicating environmental concerns for the site. At the issuance of this report, a response has not been received from the Fire Department.

#### **4.2.4 Muskegon Charter Township Clerk**

The Muskegon Charter Township Clerk was contacted via facsimile regarding environmental records or information indicating environmental concerns for the site. At the issuance of this report, a response has not been received from the Township Clerk.

### **4.3 Records Review Summary**

Based on distance, environmental setting and facility characteristics, as stated in the text of the report, the identified facilities and inquiry results from the local agencies do not appear to constitute a REC to the site at this time.

## **5.0 SITE RECONNAISSANCE**

### **5.1 General Site Information**

Information contained in this section is based on a visual reconnaissance conducted while walking through the site and the accessible interior areas of structures, if any, located on the site. Figure 2 in Appendix A is a Site Plan of the site. Photo documentation of the site at the time of the visual reconnaissance is provided in Appendix E. Credentials of the individuals planning and conducting the site visit are included in Appendix F.

McDonald's #211425  
 Project No. 94089085.34  
 November 7, 2008



### General Site Information

Site Reconnaissance	
<i>Field Personnel</i>	Lindy M. Breedon
<i>Reconnaissance Date</i>	October 14, 2008
<i>Weather Conditions</i>	Sunny, 65°F
<i>Site Contact/Title</i>	Ms. Debbie Gordon / Site Owner Representative
Site Description	
<i>Site Name</i>	McDonald's #211425
<i>Site Location/Address</i>	NWQ East Apple Avenue & South Milliron Road, Muskegon, Muskegon County, Michigan
<i>Land Area</i>	6.007 acres
<i>Site Improvements</i>	A stormwater detention pond and partial perimeter fencing.
<i>Zoning</i>	Neighborhood Commercial (C-1)
<i>Site Topographic Relief</i>	Relatively flat; however, very gently sloping towards the southwest.
Site Utilities	
<i>Electricity</i>	N/A
<i>Drinking Water</i>	N/A
<i>Wastewater</i>	N/A
<i>Natural Gas</i>	N/A

## 5.2 General Description of Site, Occupants and Operations

The site consists of waist- to shoulder-high native vegetation and forested land. The site has been improved with a stormwater detention pond and partial perimeter fencing.

## 5.3 Site Observations

The following table summarizes site observations and interviews. Affirmative responses (designated by an "X") are discussed in more detail following the table.

McDonald's #211425  
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### Site Characteristics

Category	Item or Feature	Observed
<b>Site Operations, Processes, and Equipment</b>	Emergency generators	
	Elevators	
	Air compressors	
	Hydraulic lifts	
	Dry cleaning	
	Photo processing	
	Laboratory hoods and/or incinerators	
	Waste treatment systems and/or water treatment systems	
	Heating and/or cooling systems	
	Other processes or equipment	
<b>Aboveground Chemical or Waste Storage</b>	Aboveground storage tanks	
	Drums, barrels and/or containers $\geq 5$ gallons	
	MSDS	
<b>Underground Chemical or Waste Storage, Drainage or Collection Systems</b>	Underground storage tanks or ancillary UST equipment	
	Sumps, cisterns, catch basins and/or dry wells	
	Grease traps	
	Septic tanks and/or leach fields	
	Oil/water separators	
	Pipeline markers	
	Interior floor drains	
<b>Electrical Transformers/ PCBs</b>	Pad or pole mounted transformers and/or capacitors	X
	Other equipment	
<b>Releases or Potential Releases</b>	Stressed vegetation	
	Stained soil	
	Stained pavement or similar surface	
	Leachate and/or waste seeps	
	Trash, debris and/or other waste materials	
	Dumping or disposal areas	
	Construction/demolition debris and/or dumped fill dirt	
	Surface water discoloration, odor, sheen, and/or free floating product	
	Strong, pungent or noxious odors	
	Exterior pipe discharges and/or other effluent discharges	
<b>Other Notable Site Features</b>	Surface water bodies	X
	Quarries or pits	
	Wells	

## **Electrical Transformers/PCBs**

### Pad or pole mounted transformers and/or capacitors

During Terracon's site visit, seven pole-mounted transformers, likely owned and serviced by the City of Muskegon, were observed along or near site boundaries; however, no information with regard to PCB content of the transformer fluids was observed. Transformers contain mineral oil which may contain minor amounts of PCB and could be considered "PCB contaminated" (PCB content of 50-499 ppm).

City of Muskegon maintains responsibility for the transformer, and if the transformers were "PCB contaminated," the utility company is not required to replace the transformer fluids until a release is identified. However, no evidence of current or prior release was observed in the vicinity of the electrical equipment during the site reconnaissance.

## **Other Notable Site Features**

### Surface Water Bodies

A stormwater detention pond was observed on the northwest portion of the site during the site reconnaissance. In addition, drainage ditches were observed along the eastern, southern and western site boundaries. No evidence of chemical sheens was observed on the surface of the waters and no noxious odors were observed emanating from within the pond or drainage ditches at the time of the site reconnaissance. Evidence of surficial staining, miscellaneous container storage or dumping was not observed in the vicinity of the water bodies. Based on observations made during the site reconnaissance, the on-site pond and drainage ditches do not appear to constitute a REC in connection with the site at this time.

## **5.4 Interviews Conducted During Visual Reconnaissance**

The site consisted of vacant, unoccupied land at the time of the site reconnaissance; hence, interviews were not conducted during the site reconnaissance.

## **5.5 Site Reconnaissance Summary**

No RECs were identified during Terracon's site reconnaissance.

## 6.0 ADJOINING PROPERTY RECONNAISSANCE

Visual observations of adjoining properties (from site boundaries) are summarized below.

### Adjoining Properties

Direction	Description
North	Forested land and a residential building (885 South Milliron Road).
East	South Milliron Road, followed by the Muskegon Charter Township Softball World (878 South Milliron Road), and vacant land.
Southeast	McDonald's restaurant (3586 East Apple Avenue), and <u>a BP gas station</u> (3592 East Apple Avenue).
South	East Apple Avenue, followed by Fun N Sun RV, Inc. and RV and 5 <sup>th</sup> wheel storage (3555 East Apple Avenue), and the western portion of <u>U-Haul &amp; Hitch World</u> (3587 East Apple Avenue).
West	Powerhouse Gym and associated parking lot (3480 East Apple Avenue).

A BP gas station was identified to the adjacent southeast of the site during the area reconnaissance and was previously discussed in Section 4.1.

The western portion of the U-Haul & Hitch World facility was identified south of the site, across East Apple Avenue, during the area reconnaissance and was previously discussed in Section 4.1.

Indications of RECs were not observed with the remaining adjoining properties.

## 7.0 ADDITIONAL SERVICES

Per the agreed scope of services specified in the proposal, additional services (e.g. asbestos sampling, lead-based paint sampling, wetlands evaluation, lead in drinking water testing, radon testing, etc.) were not conducted.

## 8.0 FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

### 8.1 Findings and Conclusions

This Phase I ESA was performed in accordance with our proposal dated September 16, 2008, and was conducted consistent with the procedures included in ASTM E 1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The ESA was conducted under the supervision or responsible charge of John B. Sallman III, P.G., environmental professional. Lindy M. Breedon performed the site reconnaissance on October 14, 2008.

A cursory summary of findings is provided below. It should be recognized that details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein.

- The site is located in the northwest quadrant (NWQ) of East Apple Avenue and South Milliron Road in Muskegon, Muskegon County, Michigan. The site is a 6.007-acre tract of land that consists of waist- to shoulder-high native vegetation and forested land. The site has been improved with a stormwater detention pond and partial perimeter fencing.
- Based on a review of historical information, the site has consisted of agricultural land and/or vacant land and/or forested land since at least 1953.

The property to the adjacent north of the site has consisted of agricultural land and/or vacant land and residential buildings since at least 1953. The property to the adjacent east of the site has consisted of agricultural land and/or vacant land since at least 1953 and the present-day Muskegon Charter Township Softball World facility since the late 1980s. The property to the adjacent southeast of the site has consisted of agricultural land and/or vacant land and/or forested land, and residential buildings from at least 1953 until the development of the present-day McDonald's restaurant building and the present-day BP gas station in the early 2000s. The property to the adjacent south has consisted of agricultural land and/or vacant land from at least 1953 until the development of the western portion of a former auto salvage yard in the early 1970s, and the western portion of the present-day U-Haul & Hitch World facility in the late 1980s. The property to the adjacent west of the site consisted of agricultural land and/or vacant land from at least 1953 until the development of the present-day Powerhouse Gym and associated



parking lot in the mid 1990s. East Apple Avenue and South Milliron Road have been located to the adjacent south and east of the site, respectively, since at least 1953.

- The regulatory database review indicates that two (2) Michigan Department of Environmental Quality (MDEQ) Underground Storage Tank (UST) facilities and two (2) MDEQ Leaking UST (LUST) facilities were identified within the specified search radii. Based on distance, environmental setting and facility characteristics, as stated in the text of the report, the identified facilities and inquiry results from the local agencies do not appear to constitute a REC to the site at this time.

## **8.2 Recommendations**

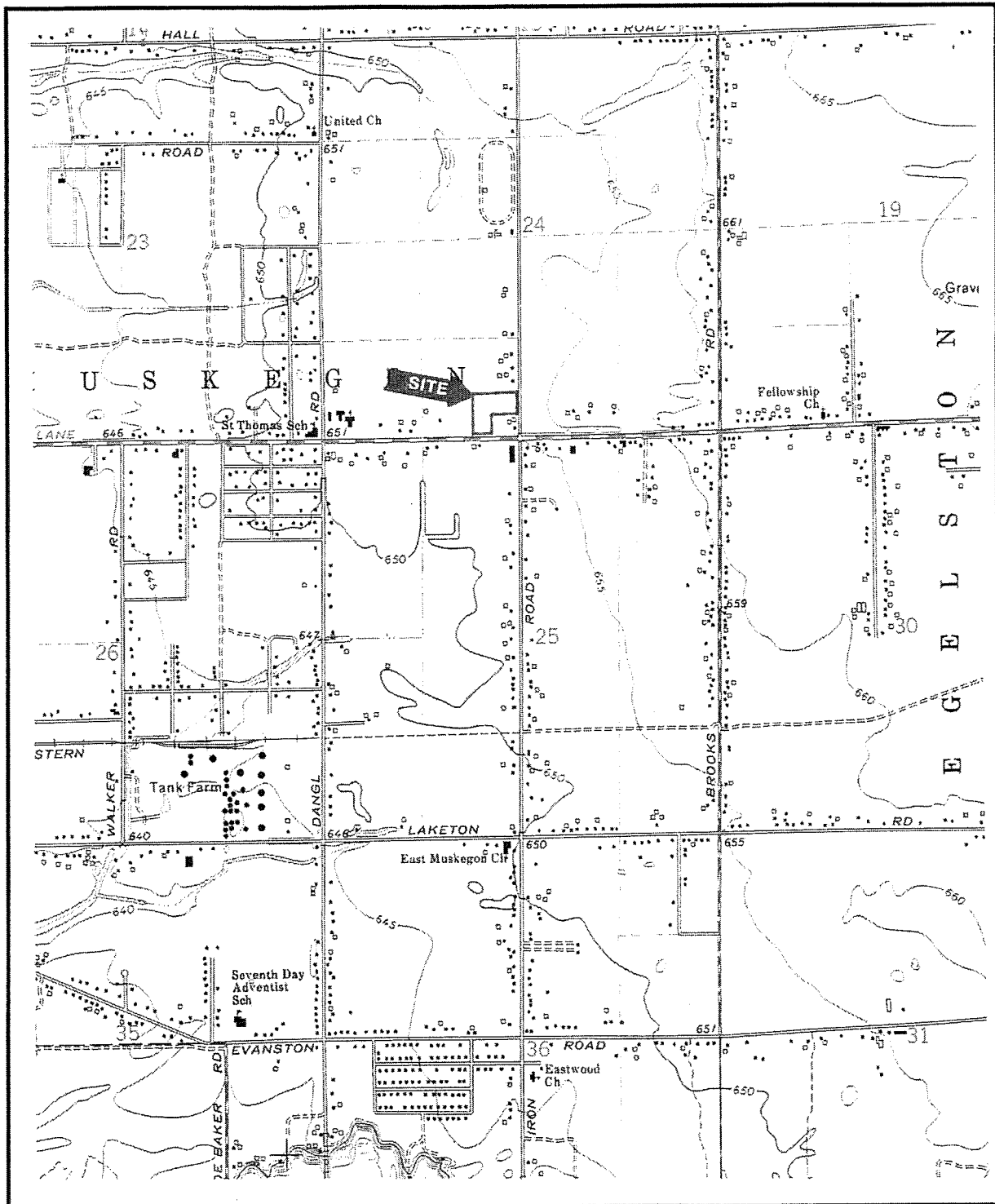
Based on the scope of services, limitations and findings of this assessment, Terracon did not identify RECs which, in our opinion, warrant additional investigation at this time.

## **9.0 DECLARATION**

I, John B. Sallman III, P.G., declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in Section 312.10 of 40 CFR 312; and I have the specific qualifications based on education, training, and experience to assess a site of the nature, history, and setting of the site. I have developed and performed the All Appropriate Inquiries in conformance with the standards and practice set forth in 40 CFR Part 312.

## **APPENDIX A**

**Figure 1 – Topographic Map, Figure 2 – Site Plan**



USGS TOPOGRAPHIC QUADRANGLE MAP

Muskegon East, Michigan

Dated 1972, Photorevised 1980

SCALE: 1" = 2,000'

PROJECT NO. 94089085.34



N



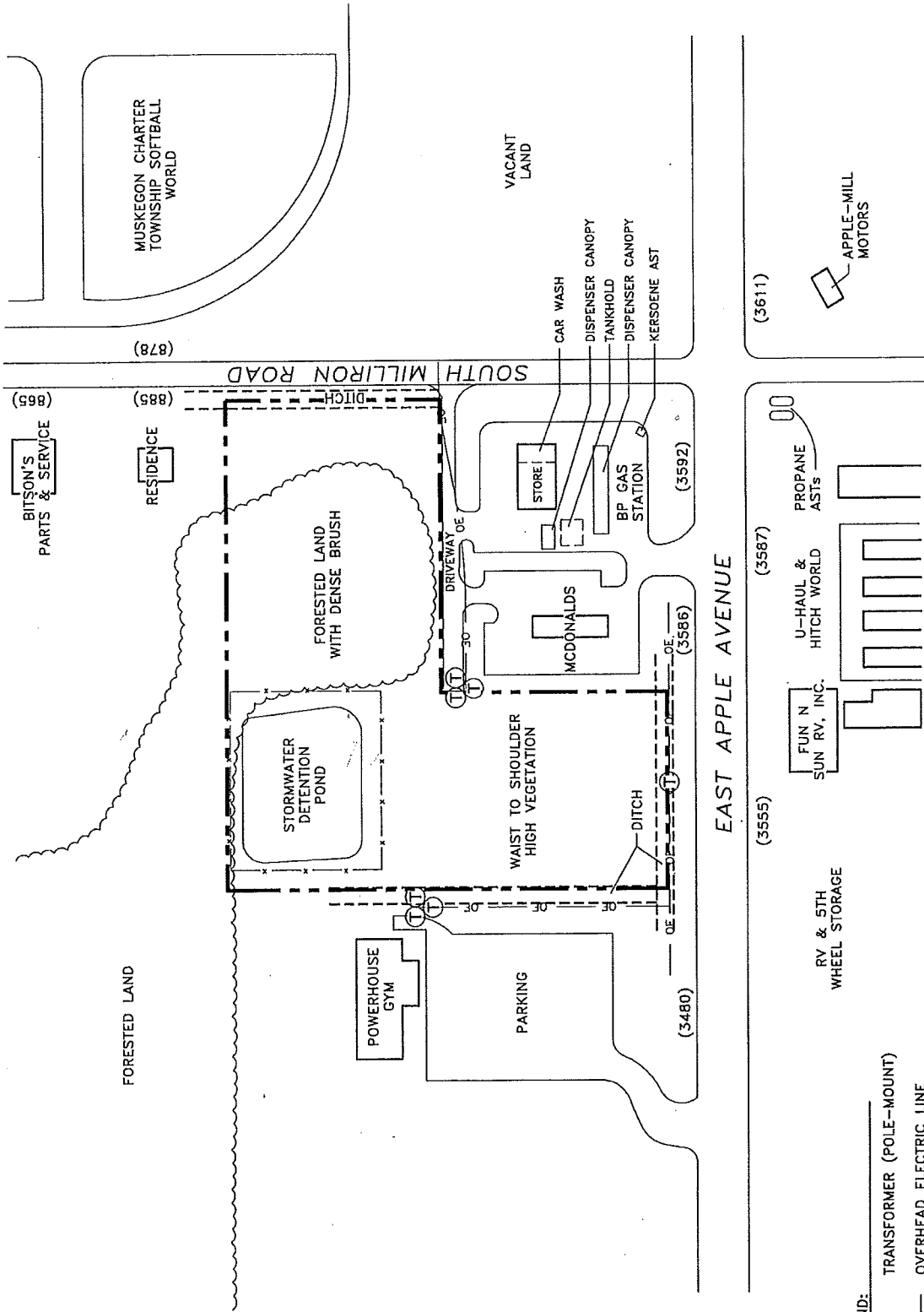
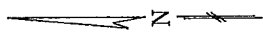
McDonald's #211425

NWQ East Apple Avenue

& South Milliron Road

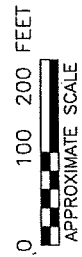
Muskegon, Muskegon County, Michigan

FIGURE 1: TOPOGRAPHIC MAP



- LEGEND:
- (T) TRANSFORMER (POLE-MOUNT)
  - OE — OVERHEAD ELECTRIC LINE
  - x — FENCE

THIS DRAWING SHOULD NOT BE USED SEPARATELY FROM ORIGINAL REPORT.



MCDONALD'S #211425  
NWQ EAST APPLE AVENUE & SOUTH MILLIRON ROAD  
MUSKOGON, MUSKOGON COUNTY, MICHIGAN

## **APPENDIX B**

### **Description of Terms and Acronyms**

## Description of Selected General Terms and Acronyms

Term/Acronym	Description
ACM	<p>Asbestos Containing Material. Asbestos is a naturally occurring mineral, three varieties of which (chrysotile, amosite, crocidolite) have been commonly used as fireproofing or binding agents in construction materials. Exposure to asbestos, as well as ACM, has been documented to cause lung diseases including asbestosis (scarring of the lung), lung cancer and mesothelioma (a cancer of the lung lining).</p> <p>Regulatory agencies have generally defined ACM as a material containing greater than one (1) percent asbestos, however some states (e.g. California) define ACM as materials having 0.1% asbestos. In order to define a homogenous material as non-ACM, a minimum number of samples must be collected from the material dependent upon its type and quantity. Homogenous materials defined as non-ACM must either have 1) no asbestos identified in all of its samples or 2) an identified asbestos concentration below the appropriate regulatory threshold. Asbestos concentrations are generally determined using polarized light microscopy or transmission electron microscopy. Point counting is an analytical method to statistically quantify the percentage of asbestos in a sample. The asbestos component of ACM may either be friable or non-friable. Friable materials, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure and have a higher potential for a fiber release than non-friable ACM. Non-friable ACM are materials that are firmly bound in a matrix by plastic, cement, etc. and, if handled carefully, will not become friable.</p> <p>Federal and state regulations require that either all suspect building materials be presumed ACM or that an asbestos survey be performed prior to renovation, dismantling, demolition, or other activities that may disturb potential ACM. Notifications are required prior to demolition and/or renovation activities that may impact the condition of ACM in a building. ACM removal may be required if the ACM is likely to be disturbed or damaged during the demolition or renovation. Abatement of friable or potentially friable ACM must be performed by a licensed abatement contractor in accordance with state rules and NESHAP. Additionally, OSHA regulations for work classification, worker training and worker protection will apply.</p>
AHERA	Asbestos Hazard Emergency Response Act
AST	Above Ground Storage Tanks. ASTs are generally described as storage tanks less than 10% of which are below ground (i.e., buried). Tanks located in a basement, but not buried, are also considered ASTs. Whether, and the extent to which, an AST is regulated, is determined on a case-by-case basis and depends upon tank size, its contents and the jurisdiction of its location.
BGS	Below Ground Surface
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes. BTEX are VOC components found in gasoline and commonly used as analytical indicators of a petroleum hydrocarbon release.
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act (a.k.a. Superfund). CERCLA is the federal act that regulates abandoned or uncontrolled hazardous waste sites. Under this Act, joint and several liability may be imposed on potentially responsible parties for cleanup-related costs.
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System. An EPA compilation of sites having suspected or actual releases of hazardous substances to the environment. CERCLIS also contains information on site inspections, preliminary assessments and remediation of hazardous waste sites. These sites are typically reported to EPA by states and municipalities or by third parties pursuant to CERCLA Section 103.
CESQG	Conditionally exempt small quantity generators.
CFR	Code of Federal Regulations
DOT	U.S. Department of Transportation
EPA	U.S. Environmental Protection Agency
ERNS	Emergency Response Notification System. An EPA-maintained federal database which stores information on notifications of oil discharges and hazardous substance releases in quantities greater than the applicable reportable quantity under CERCLA. ERNS is a cooperative data-sharing effort between EPA, DOT, and the National Response Center.
ESA	Environmental Site Assessment

## Description of Terms and Acronyms (cont.)

FRP	Fiberglass Reinforced Plastic
Hazardous Substance	As defined under CERCLA, this is (A) any substance designated pursuant to section 1321(b)(2)(A) of Title 33, (B) any element, compound, mixture, solution, or substance designated pursuant to section 9602 of this title; (C) any hazardous waste having characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act (with some exclusions); (D) any toxic pollutant listed under section 1317(a) of 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 EPA Administrator has taken action under section 2606 of Title 15. This term does not include petroleum, including crude oil or any fraction thereof which is not otherwise listed as a hazardous substance under subparagraphs (A) through (F) above, and the term include natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).
Hazardous Waste	This is defined as having characteristics identified or listed under section 3001 of the Solid Waste Disposal Act (with some exceptions). RCRA, as amended by the Solid Waste Disposal Act of 1980, defines this term as a "solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may (A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed."
ILP	Innocent Landowner/Operator Program
LQG	Large quantity generators.
LUST	Leaking Underground Storage Tank. This is a federal term set forth under RCRA for leaking USTs. Some states also utilize this term.
MCL	Maximum Contaminant Level. This Safe Drinking Water concept (and also used by many states as a ground water cleanup criteria) refers to the limit on drinking water contamination that determines whether a supplier can deliver water from a specific source without treatment.
MSDS	Material Safety Data Sheets. Written/printed forms prepared by chemical manufacturers, importers and employers which identify the physical and chemical traits of hazardous chemicals under OSHA's Hazard Communication Standard.
NESHAP	National Emissions Standard for Hazardous Air Pollutants (Federal Clean Air Act). This part of the Clean Air Act regulates emissions of hazardous air pollutants.
NFRAP	Facilities where there is "No Further Remedial Action Planned," as more particularly described under the Records Review section of this report.
NOV	Notice of Violation. A notice of violation or similar citation issued to an entity, company or individual by a state or federal regulatory body indicating a violation of applicable rule or regulations has been identified.
NPDES	National Pollutant Discharge Elimination System (Clean Water Act). The federal permit system for discharges of polluted water.
NPL	National Priorities List, as more particularly described under the Records Review section of this report.
OSHA	Occupational Safety and Health Administration or Occupational Safety and Health Act
PACM	Presumed Asbestos-Containing Material. A material that is suspected of containing or presumed to contain asbestos but which has not been analyzed to confirm the presence or absence of asbestos.
PCB	Polychlorinated Biphenyl. A halogenated organic compound commonly in the form of a viscous liquid or resin, a flowing yellow oil, or a waxy solid. This compound was historically used as dielectric fluid in electrical equipment (such as electrical transformers and capacitors, electrical ballasts, hydraulic and heat transfer fluids), and for numerous heat and fire sensitive applications. PCB was preferred due to its durability, stability (even at high temperatures), good chemical resistance, low volatility, flammability, and conductivity. PCBs, however, do not break down in the environment and are classified by the EPA as a suspected carcinogen. 1978 regulations, under the Toxic Substances Control Act, prohibit manufacturing of PCB-containing equipment; however, some of this equipment may still be in use today.
pCi/l	Pico Curies per Liter of Air. Unit of measurement for Radon and similar radioactive materials.
PLM	Polarized Light Microscopy (see ACM section of the report, if included in the scope of services)
PST	Petroleum Storage Tank. An AST or UST that contains a petroleum product.

## Description of Terms and Acronyms (cont.)

Radon	A radioactive gas resulting from radioactive decay of naturally-occurring radioactive materials in rocks and soils containing uranium, granite, shale, phosphate, and pitchblende. Radon concentrations are measured in Pico Curies per Liter of Air. Exposure to elevated levels of radon creates a risk of lung cancer; this risk generally increases as the level of radon and the duration of exposure increases. Outdoors, radon is diluted to such low concentrations that it usually does not present a health concern. However, radon can accumulate in building basements or similar enclosed spaces to levels that can pose a risk to human health. Indoor radon concentrations depend primarily upon the building's construction, design and the concentration of radon in the underlying soil and ground water. The EPA recommended annual average indoor "action level" concentration for residential structures is 4.0 pCi/l.
RCRA	Resource Conservation and Recovery Act. Federal act regulating solid and hazardous wastes from point of generation to time of disposal ("cradle to grave"). 42 U.S.C. 6901 et seq.
RCRA Generators	The RCRA generators list is part of the RCRIS database maintained by EPA and lists facilities that generate hazardous waste as part of their normal business operations, as more particularly defined under Section 5.0 of this report.
RCRA CORRACTS/TSDs	The USEPA maintains a database of RCRA facilities associated with treatment, storage, and disposal (TSD) of hazardous materials which are undergoing "corrective action". A "corrective action" order is issued when there is a release of hazardous waste or constituents into the environment from a RCRA facility.
RCRA Non-CORRACTS/TSDs	The RCRA Non-CORRACTS/TSD Database is a compilation by the USEPA of facilities which report storage, transportation, treatment, or disposal of hazardous waste. Unlike the RCRA CORRACTS/TSD database, the RCRA Non-CORRACTS/TSD database does not include RCRA facilities where corrective action is required.
RCRA Violators List	RAATS. RCRA Administrative Actions Taken. RAATS information is now contained in the RCRIS database and includes records of administrative enforcement actions against facilities for noncompliance.
RCRIS	Resource Conservation and Recovery Information System, as defined in the Records Review section of this report.
REC	Recognized Environmental Conditions" are defined by ASTM E 1527-05 as "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions of compliance with laws. The term is not intended to include <i>de minimis</i> conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies."
SCL	State "CERCLIS" List (see SPL/State Priority List, below).
SPCC	Spill Prevention, Control and Countermeasures. SPCC plans are required under federal law (Clean Water Act and Oil Pollution Act) for any facility storing petroleum in tanks and/or containers of 55-gallons or more that when taken in aggregate exceed 1,320 gallons. SPCC plans are also required for facilities with underground petroleum storage tanks with capacities of over 42,000 gallons. Many states have similar spill prevention programs, which may have additional requirements.
SPL	State Priority List. State list of confirmed sites having contamination in which the state is actively involved in clean up activities or is actively pursuing potentially responsible parties for clean up. Sometimes referred to as a State "CERCLIS" List.
SQG	Small quantity generators.
SWF	Solid Waste Facility List. A Vista Information Solutions, Inc. database of solid waste facilities listed by state.
TPH	Total Petroleum Hydrocarbons
TRI	Toxic Release Inventory. Routine EPA report on releases of toxic chemicals to the environment based upon information submitted by entities subject to reporting under the Emergency Planning and Community Right to Know Act.
TSCA	Toxic Substances Control Act. A federal law regulating manufacture, import, processing and distribution of chemical substances not specifically regulated by other federal laws (such as asbestos, PCBs, lead-based paint and radon). 15 U.S.C 2601 et seq.
USACE	United States Army Corps of Engineers
USC	United States Code
USGS	United States Geological Survey
USNRCS	United States Department of Agriculture-Natural Resource Conservation Service



## Description of Terms and Acronyms (cont.)

UST	Underground Storage Tank. Most federal and state regulations, as well as ASTM E 1527-05, define this as any tank, incl., underground piping connected to the tank, that is or has been used to contain hazardous substances or petroleum products and the volume of which is 10% or more beneath the surface of the ground (i.e., buried).
VCP	Voluntary Cleanup Program
VOC	Volatile Organic Compound
Wetlands	<p>Areas that are typically saturated with surface or ground water that creates an environment supportive of wetland vegetation (i.e., swamps, marshes, bogs). The Corps of Engineers Wetlands Delineation Manual (Technical Report Y-87-1) defines wetlands as areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. For an area to be considered a jurisdictional wetland, it must meet the following criteria: more than 50 percent of the dominant plant species must be categorized as Obligate, Facultative Wetland, or Facultative on lists of plant species that occur in wetlands; the soil must be hydric; and, wetland hydrology must be present.</p> <p>The federal Clean Water Act which regulates "Muskegon of the US," also regulates wetlands, a program jointly administered by the USACE and the EPA. Muskegon of the U.S. are defined as: (1) Muskegon used in interstate or foreign commerce, including all Muskegon subject to the ebb and flow of tides; (2) all interstate Muskegon including interstate wetlands; (3) all other Muskegon such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, potholes, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, etc., which the use, degradation, or destruction could affect interstate/ foreign commerce; (4) all impoundments of Muskegon otherwise defined as Muskegon of the U. S., (5) tributaries of Muskegon identified in 1 through 4 above; (6) the territorial seas; and (7) wetlands adjacent to Muskegon identified in 1 through 6 above. Only the USACE has the authority to make a final wetlands jurisdictional determination.</p>

## **APPENDIX C**

### **Historical Documentation**



DATED: 1938  
SOURCE: USGS  
SCALE: 1" = 500'



McDonald's #211425  
NWQ East Apple Avenue  
& South Milliron Road  
Muskegon, Muskegon County, Michigan

PROJECT NO. 94089085.34

**AERIAL PHOTOGRAPH**



DATED: 2006  
SOURCE: USDA  
SCALE: 1" = 500'



McDonald's #211425  
NWQ East Apple Avenue  
& South Milliron Road  
Muskegon, Muskegon County, Michigan

PROJECT NO. 94089085.34

**AERIAL PHOTOGRAPH**

ASTM E 1527-05 USER QUESTIONNAIRE  
Page 1 of 2  
Proposal No: 3708326

In order to qualify for one of the Landowner Liability Protections (LLPs) offered by the Small Business Relief and Brownfields Revitalization Act of 2001, the user must respond to the following questions. Failure to provide this information to the environmental professional may result in significant data gaps, which may limit our ability to identify recognized environmental conditions resulting in a determination that "all appropriate inquiry" is not complete. This form represents a type of interview and as such, the user has an obligation to answer all questions in good faith, to the extent of their actual knowledge.

Site Name: \_\_\_\_\_ Site Address: \_\_\_\_\_

1) Are you aware of any environmental cleanup liens against the site that are filed or recorded under federal, tribal, state, or local law (40 CFR 312.25)? ☒ No ☐ Yes If yes, please explain.

2) Are you aware of any activity and use limitations (AULs), such as engineering controls, land use restrictions, or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state, or local law (40 CFR 312.26)? ☒ No ☐ Yes If yes, please explain.

3) As the user of this ESA, do you have any specialized knowledge or experience related to the site or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the site or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business (40 CFR 312.28)? ☒ No ☐ Yes If yes, please explain.

4) Does the purchase price being paid for this site reasonably reflect the fair market value of the site (40 CFR 312.29)? ☐ No ☐ Yes *N/A*

If no, have you considered whether the lower purchase price is because contamination is known or believed to be present at the site (40 CFR 312.29)? ☐ No ☐ Yes If yes, please explain.

5) Are you aware of commonly known or reasonably ascertainable information about the site that would help the environmental professional to identify conditions indicative of releases or threatened releases (40 CFR 312.30)? ☒ No ☐ Yes If yes, please explain.

6) As the user of this ESA, based on your knowledge and experience related to the site, are there any obvious indicators that point to the presence or likely presence of contamination at the site (40 CFR 312.31)? ☒ No ☐ Yes If yes, please explain.

#### Request for Information and Documentation

In addition to the specific questions outlined above, the user is requested to provide the following information and documentation, as available. ASTM requires that this information, if available, be provided to the environmental professional prior to the site visit.

Please return this form with the signed and completed Agreement for Services.

ASTM E 1527-05 USER QUESTIONNAIRE  
Page 2 of 2  
Proposal No: 3708326

Item Supplied <i>xxx</i>	Not Applicable Not Available or Not Known <i>xxx</i>	Item Requested (See Proposal)	Contacts/Comments or Indicate Attachment
		Point of Contact for Access	Name/Phone:
		Current Site Owner	Name/Phone:
		Current Facility Operator	Name/Phone:
		Contacts for Prior Owners	Name/Phone:
		Contacts for Prior Occupants	Name/Phone:
		Access Restrictions	
		Notification of Special Requirements Regarding Confidentiality	
		Legal Description and Diagram / Survey of Site	
		Chain of Title with Grantor/Grantee Summary (back to 1940 or first developed use)	
		Reasons for Conducting ESA	

**Helpful Documents Checklist**

Pursuant to ASTM E 1527-05 § 10.8, do you know whether any of the following documents exist related to the subject property and, if so, whether copies can and will be provided to the environmental professional? Check all that apply.

- |   |   |
|---|---|
| <input type="checkbox"/> Environmental site assessment reports  | <input type="checkbox"/> Notices or other correspondence from any governmental agency relating to past or current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property |
| <input type="checkbox"/> Environmental compliance audit reports   |   |
| <input type="checkbox"/> Geotechnical studies   | <input type="checkbox"/> Registrations for underground injection systems  |
| <input type="checkbox"/> Reports regarding hydrogeologic conditions on the property or surrounding area | <input type="checkbox"/> Environmental permits/plans, solid waste permits, hazardous waste disposal permits, wastewater permits, NPDES permits, underground injection permits, SPCC plans   |
| <input type="checkbox"/> Registrations for above or underground storage tanks                           |   |

Debbie Gordon  
Name (Authorized Client Representative)

Development Coordinator  
Title

[Signature]  
Signature

11.6.08  
Date

Please return this form with the signed and completed Agreement for Services.



CLIENT	SITE
<b>TERRACON, INC.-DALLAS</b> Attn: Lindy Breedon 8901 West John Carpenter Fwy., #100 Dallas, TX 75247 Ph. (214)630-1010 Fax 1-214-630-7070	<b>E Apple Ave &amp; S Mill Iron Rd</b> <b>Muskegon, MI 49442</b> <b>(Muskegon County)</b> <b>Client Job # 94089085.34</b>

### **FIRE INSURANCE MAP RESEARCH**

Banks Environmental Data (Banks) has completed your research request to ascertain the likelihood of Fire Insurance Map coverage for the above site. This document reports that Digital Fire Insurance Maps at the Library of Congress have been reviewed based on client-supplied information. The Library of Congress' collection includes all maps submitted to the Library through copyright deposit and a set of maps transferred to the Library from the Bureau of the Census. Maps from the Bureau of the Census include corrections issued by the Sanborn Company that were pasted over the original map sheet. Maps acquired through copyright deposit remain in their original form.

*No Fire Insurance maps depicting the target property were identified.*

**\*\*\*NO COVERAGE\*\*\***

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## **APPENDIX D**

### **Environmental Database Information**





Banks Environmental Data

## **Environmental FirstSearch™ Report**

Target Property: MCDONALD'S #211425

**E APPLE AVE & S MILL IRON ROAD**

**MUSKEGON MI 49442**

Job Number: ES42482

### **PREPARED FOR:**

**TERRACON, INC.-DALLAS**

8901 West John Carpenter Fwy., #100

Dallas, TX 75247

10-07-08



*Tel: (512) 478-0059*

*Fax: (512) 478-1433*

# *Environmental FirstSearch*

## *Search Summary Report*

**Target Site:** E APPLE AVE & S MILL IRON ROAD  
MUSKEGON MI 49442

### FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
NPL	Y	07-09-08	1.00	0	0	0	0	0	0	0
NPL Delisted	Y	07-09-08	0.50	0	0	0	0	-	0	0
CERCLIS	Y	07-09-08	0.50	0	0	0	0	-	0	0
NFRAP	Y	07-09-08	0.50	0	0	0	0	-	0	0
RCRA COR ACT	Y	07-03-08	1.00	0	0	0	0	0	0	0
RCRA TSD	Y	07-03-08	0.50	0	0	0	0	-	0	0
RCRA GEN	Y	07-03-08	0.25	0	0	0	-	-	0	0
Federal IC / EC	Y	10-01-08	0.50	0	0	0	0	-	1	1
ERNS	Y	07-30-08	0.25	0	0	0	-	-	0	0
Tribal Lands	Y	12-01-05	1.00	0	0	0	0	0	1	1
State/Tribal Sites	Y	07-04-08	1.00	0	0	0	0	0	0	0
State Spills 90	Y	NA	0.25	0	0	0	-	-	0	0
State/Tribal SWL	Y	08-06-03	0.50	0	0	0	0	-	0	0
State/Tribal LUST	Y	09-01-08	0.50	0	0	1	1	-	0	2
State/Tribal UST/AST	Y	07-01-08	0.25	0	4	0	-	-	0	4
State/Tribal EC	Y	NA	0.50	0	0	0	0	-	0	0
State/Tribal IC	Y	NA	0.25	0	0	0	-	-	0	0
State/Tribal VCP	Y	NA	0.50	0	0	0	0	-	0	0
State/Tribal Brownfields	Y	10-18-05	0.50	0	0	0	0	-	0	0
State Other	Y	09-15-08	0.25	0	0	0	-	-	4	4
FI Map Coverage	Y	08-20-08	0.12	0	0	-	-	-	0	0
- TOTALS -				0	4	1	1	0	6	12

### Notice of Disclaimer

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to Banks Environmental Data, certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in Banks Environmental Data's databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

### Waiver of Liability

Although Banks Environmental Data uses its best efforts to research the actual location of each site, Banks Environmental Data does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of Banks Environmental Data services proceeding are signifying an understanding of Banks Environmental Data searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

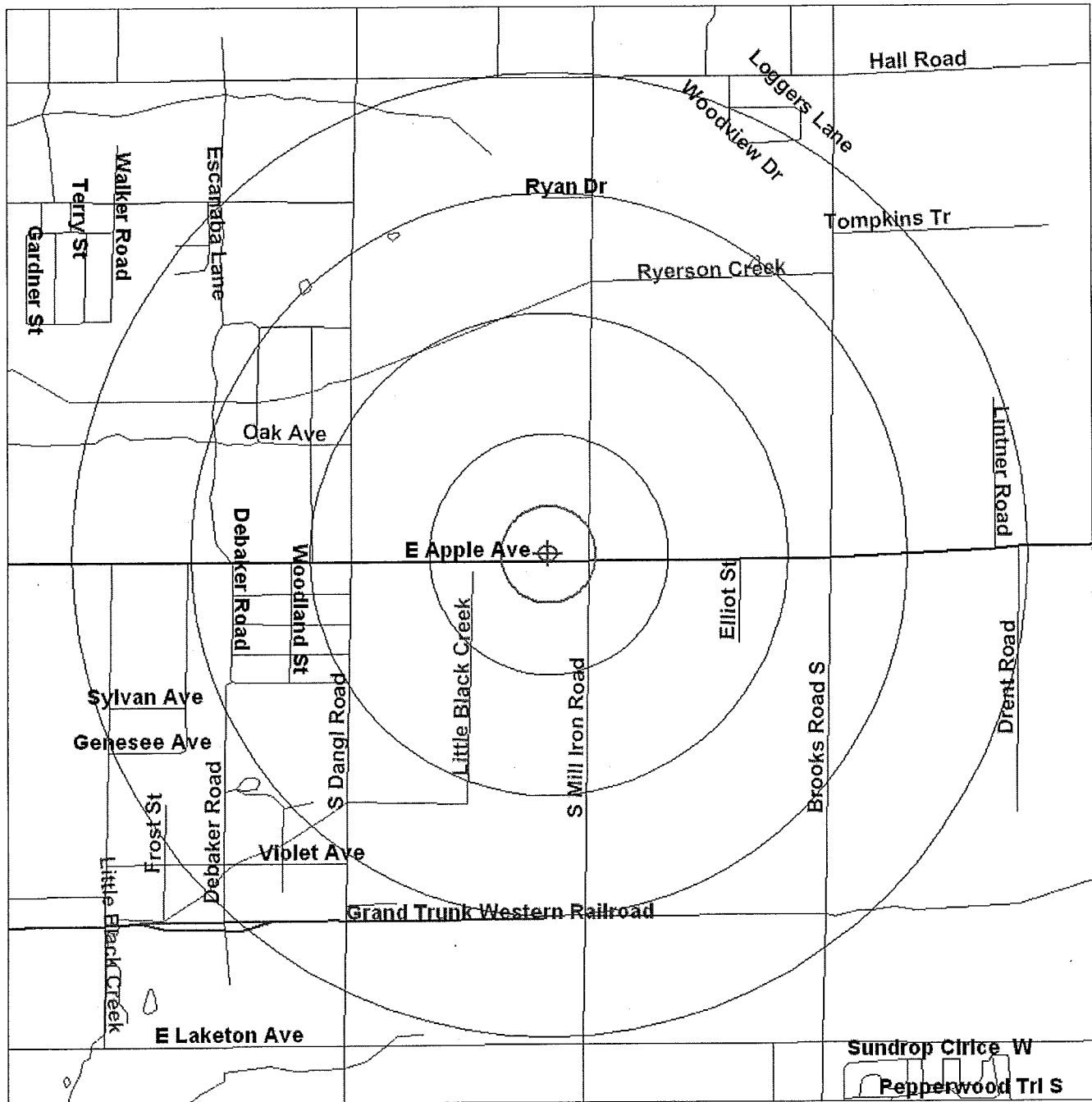


# Environmental FirstSearch

1 Mile Radius  
AAI: NPL, RCRACOR, STATE



**E APPLE AVE & S MILL IRON ROAD, MUSKEGON MI 49442**



Source: 2005 U.S. Census TIGER Files

Target Site (Latitude: 43.234489 Longitude: -86.156123) .....

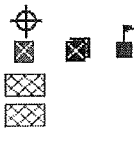
Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste .....

Triballand.....

Railroads .....

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius



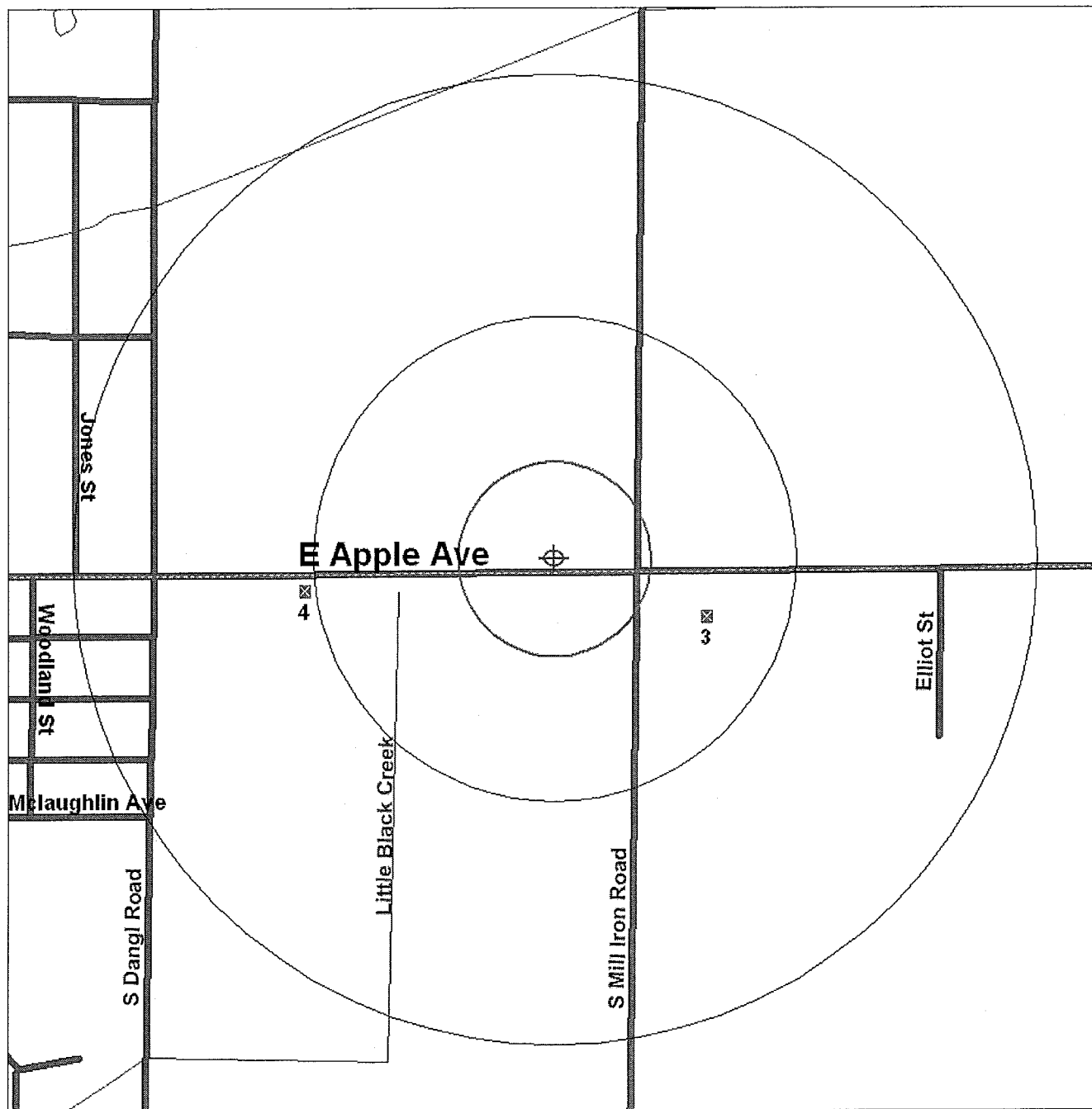


# Environmental FirstSearch

.5 Mile Radius  
AAI: Multiple Databases



E APPLE AVE & S MILL IRON ROAD, MUSKEGON MI 49442



Source: 2005 U.S. Census TIGER Files

Target Site (Latitude: 43.234489 Longitude: -86.156123) .....

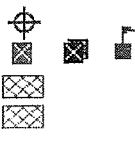
Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

Railroads .....

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius

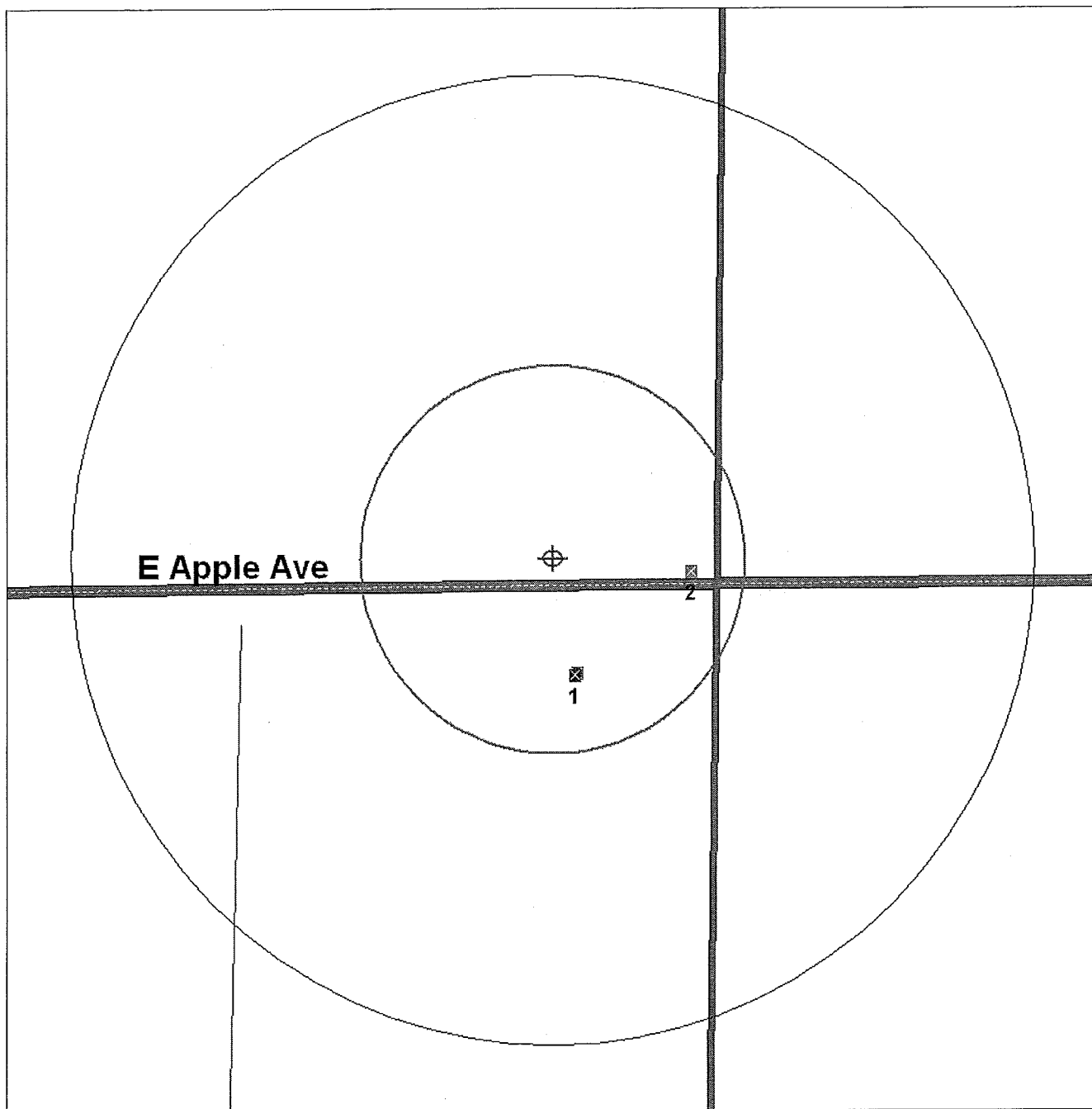




**Environmental FirstSearch**  
.25 Mile Radius  
AAI: SPILLS90, RCRAGEN, ERNS, UST, OTHER



**E APPLE AVE & S MILL IRON ROAD, MUSKEGON MI 49442**



Source: 2005 U.S. Census TIGER Files

Target Site (Latitude: 43.234489 Longitude: -86.156123) .....

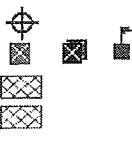
Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand .....

Railroads .....

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius





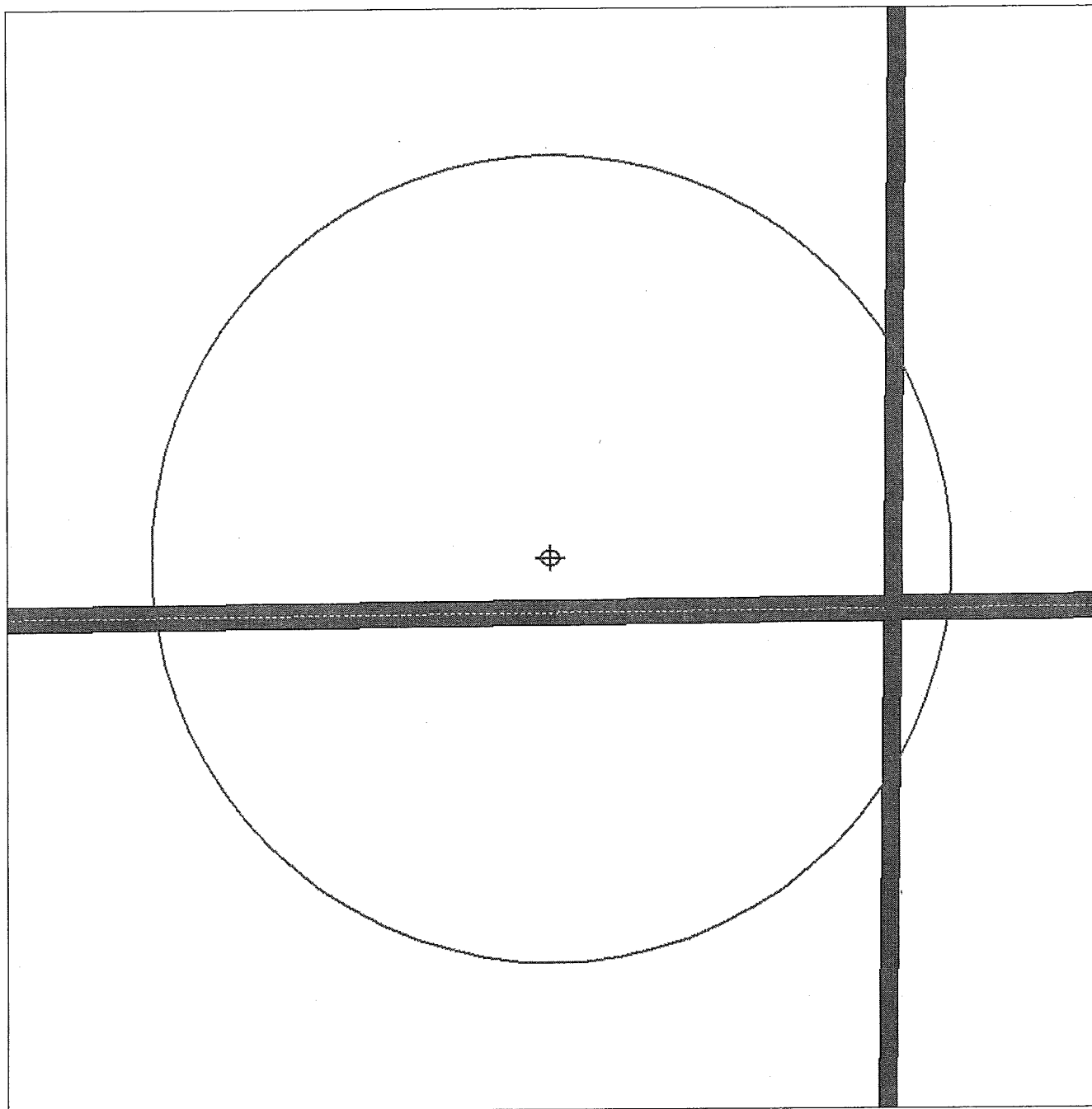
# Environmental FirstSearch

.12 Mile Radius

AAI: FIMAP



E APPLE AVE & S MILL IRON ROAD, MUSKEGON MI 49442



Source: 2005 U.S. Census TIGER Files

Target Site (Latitude: 43.234489 Longitude: -86.156123) .....

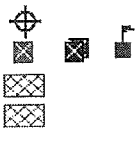
Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste .....

Triballand.....

Railroads .....

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius





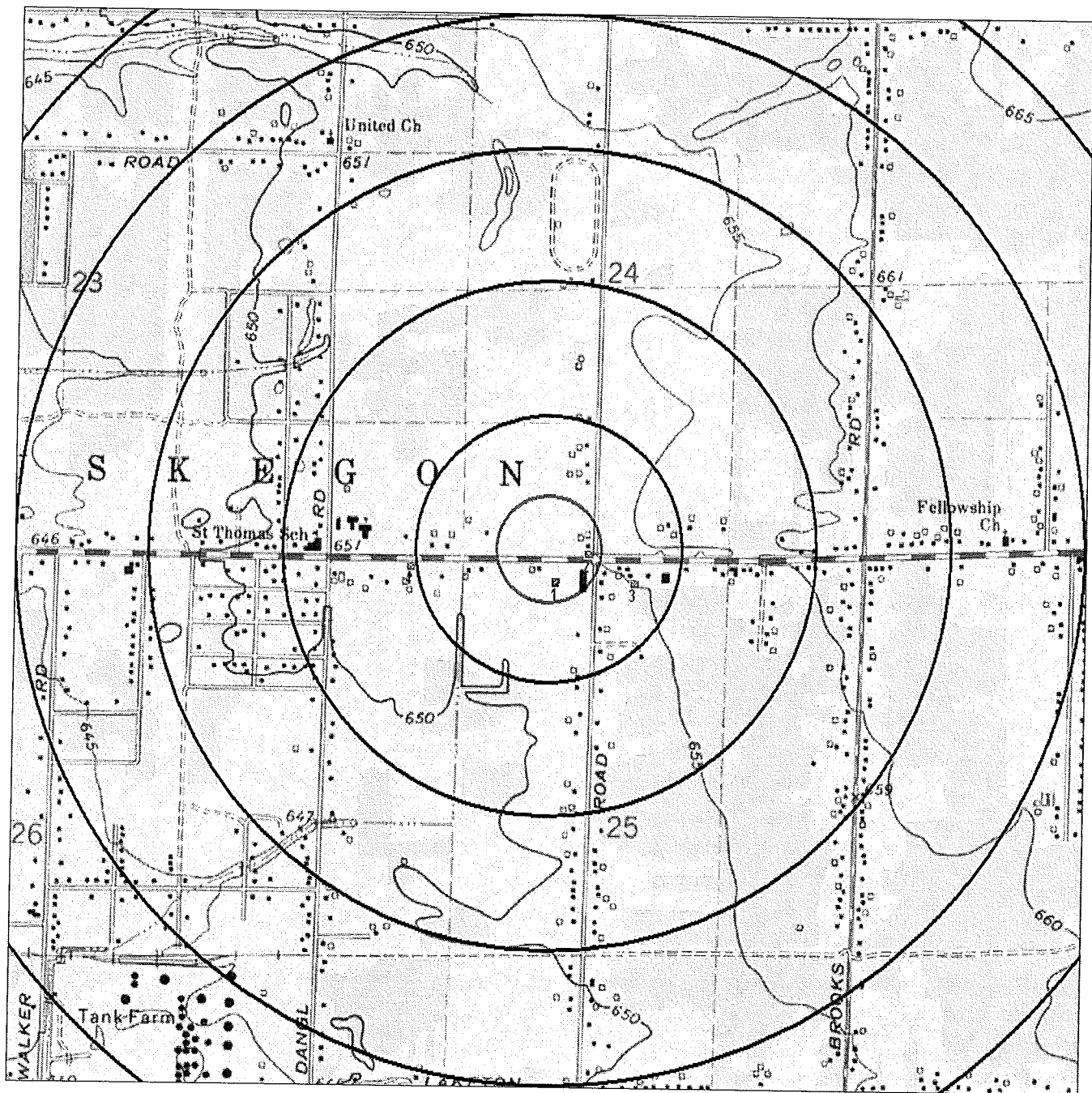
# Environmental FirstSearch

Topo : 1.00 Mile Radius

Single Map



E APPLE AVE & S MILL IRON ROAD, MUSKEGON MI 49442



## Source:

- Target Site (Latitude: 43.234489 Longitude: -86.156123) .....
- Identified Site, Multiple Sites, Receptor .....
- NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste .....
- Tribal Land .....
- Historical Fire Insurance Coverage Map .....
- Map Name: MUSKEGON EAST Date Created: 1972-- Date Revised: 1980-- Elevation: 653
- Map Reference Code: 43086-B2-TF-024
- Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

***Environmental FirstSearch  
Site Information Report***

**Request Date:** 10-07-08  
**Requestor Name:** Lauren Kinler  
**Standard:** AAI

**Search Type:** COORD  
**Job Number:** ES42482  
**Filtered Report**

**Target Site:** E APPLE AVE & S MILL IRON ROAD  
MUSKEGON MI 49442

***Demographics***

<b>Sites:</b> 12	<b>Non-Geocoded:</b> 6	<b>Population:</b> NA
<b>Radon:</b> 0 - 2.4 PCI/L		

***Site Location***

	<u><b>Degrees (Decimal)</b></u>	<u><b>Degrees (Min/Sec)</b></u>		<u><b>UTMs</b></u>
<b>Longitude:</b>	-86.156123	-86:9:22	<b>Easting:</b>	568522.983
<b>Latitude:</b>	43.234489	43:14:4	<b>Northing:</b>	4786985.323
<b>Elevation:</b>	653		<b>Zone:</b>	16

***Comment***

**Comment:**MUSKEGON COUNTY

***Additional Requests/Services***

**Adjacent ZIP Codes:** 0 Mile(s)

**Services:**

ZIP				
Code	City Name	ST	Dist/Dir	Sel

	Requested?	Date
Fire Insurance Maps	No	
Aerial Photographs	No	
Historical Topos	No	
City Directories	No	
Title Search/Env Liens	No	
Municipal Reports	No	
Online Topos	Yes	10-07-08



# *Environmental FirstSearch*

## *Selected Sites Summary Report*

**Target Property:** E APPLE AVE & S MILL IRON ROAD  
MUSKEGON MI 49442

**JOB:** ES42482  
MUSKEGON COUNTY

**TOTAL:** 12      **GEOCODED:** 6      **NON GEOCODED:** 6      **SELECTED:** 12

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
	FED IC / EC	MIDWAY CLEANING 65779613-17/EPA BROWNFIELD	UNKNOWN MUSKEGON MI	NON GC	N/A	1
3	LUST	APPLE MILL MOTORS C-0777-97/OPEN	3611 EAST APPLE AVE MUSKEGON MI 49442	0.17 SE	+ 3	2
4	LUST	MUSKEGON COMMERCE BANK C-0301-07/OPEN	3289 E APPLE AVE MUSKEGON MI 49442	0.26 SW	- 1	3
	OTHER	UNDEVELOPED PROPERTY-N OF APPLE AV BEA-1003-256/BEA	APPLE AVE MUSKEGON MI 49442	NON GC	N/A	4
	OTHER	OUTLOT G , FORMER CWC/TEXTRON PLA BEA-1103/BEA	UNKNOWN MUSKEGON MI	NON GC	N/A	4
	OTHER	FORMER COUNTY OWNED PROPERTY BEA-1824/BEA	APPLE AVE MUSKEGON MI	NON GC	N/A	5
	OTHER	53+/- ACRES, T10N, R16W, SW 1/4 SE BEA-1589/BEA	UNKNOWN MUSKEGON MI	NON GC	N/A	5
	TRIBALLAND	BUREAU OF INDIAN AFFAIRS CONTACT I BIA-49442	UNKNOWN MI 49442	NON GC	N/A	6
1	UST	U-HAULS NEVADA REAL ESTATE CO 0003380/CLOSED	3587 EAST APPLE AVE MUSKEGON MI 49442	0.06 SE	+ 1	7
1	UST	U-HAUL 9261079/AST	3587 EAST APPLE AVE MUSKEGON MI 49442	0.06 SE	+ 1	9
1	UST	U-HAUL 9261068/AST	3587 EAST APPLE AVE MUSKEGON MI 49442	0.06 SE	+ 1	10
2	UST	0040235/ACTIVE	3592 EAST APPLE AVE MUSKEGON MI 49442	0.07 SE	+ 2	11

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** E APPLE AVE & S MILL IRON ROAD  
MUSKEGON MI 49442

**JOB:** ES42482  
MUSKEGON COUNTY

FED IC / EC

<b>SEARCH ID:</b> 12	<b>DIST/DIR:</b> NON GC	<b>ELEVATION:</b>	<b>MAP ID:</b>
----------------------	-------------------------	-------------------	----------------

**NAME:** MIDWAY CLEANING  
**ADDRESS:** UNKNOWN  
MUSKEGON MI  
MUSKEGON

**REV:** 10/1/08  
**ID1:** 65779613-17  
**ID2:** 65779613  
**STATUS:** EPA BROWNFIELD  
**PHONE:**

**CONTACT:**

**SITE INFORMATION:**

**EPA ID:**

**EPA SITE NAME:**

**SITE ALIAS:**

**CONTAMINANTS:**

**TOTAL ACRES:** 0

**CERCLA WASTELAN:** U

**RCRA FACILITY:** U

**AIR AFFECTED:**

**GROUNDWATER AFFECTED:**

**SURFACE WATER AFFECTED:**

**NUMBER OF PARCELS:**

**LOCAL PARCEL NUMBER:**

**ADD DATE:**

**COMMENTS:** LEVERAGED PARCEL ACCOMPLISHMENTS PRE/NON-PILOT PARCEL ACCOMPLISHMENTS  
PARCEL KEY MEASURE DESCRIPTIONS Phase I assessment was started at Midway Cleaning with Pilot funds. The scope of work for the Midway Cleaning property includes a Phase II investigation and a BEA, scheduled for October through December 2001. (QR 8, 7/1/01 - 9/30/01) Phase I and Phase II ESAs were completed with Pilot funding at the Midway Cleaning property. A site safety plan was submitted. A BEA report was also prepared for the property. (QR 9, 10/1/01 - 12/31/01)

**COMMENTS:** PARCEL ACCOMPLISHMENTS

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** E APPLE AVE & S MILL IRON ROAD  
MUSKEGON MI 49442

**JOB:** ES42482  
MUSKEGON COUNTY

LUST

**SEARCH ID:** 5      **DIST/DIR:** 0.17 SE      **ELEVATION:** 656      **MAP ID:** 3

**NAME:** APPLE MILL MOTORS  
**ADDRESS:** 3611 EAST APPLE AVE  
MUSKEGON MI 49442  
MUSKEGON

**REV:** 9/1/08  
**ID1:** C-0777-97  
**ID2:** 5-002103  
**STATUS:** OPEN  
**PHONE:**

**CONTACT:**

**SITE INFORMATION**

**OWNER INFORMATION**

ROGER SCANLON  
3611 E APPLE AVE  
MUSKEGON MI 49442-2752

**OWNER COUNTRY** USA

**CONTACT PERSON:** ( ) -

**FACILITY ID:** 50002103  
**RELEASE SUBSTANCE:** Unknown  
**RELEASE NUMBER:** C-0777-97  
**DISTRICT:** GRAND RAPIDS DISTRICT OFFICE  
**RELEASE DATE:** JUL 25 1996  
**RELEASE STATUS:** OPEN  
**RELEASE CLOSED DATE:**

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** E APPLE AVE & S MILL IRON ROAD  
MUSKEGON MI 49442

**JOB:** ES42482  
MUSKEGON COUNTY

LUST

**SEARCH ID:** 6      **DIST/DIR:** 0.26 SW      **ELEVATION:** 652      **MAP ID:** 4

**NAME:** MUSKEGON COMMERCE BANK  
**ADDRESS:** 3289 E APPLE AVE  
MUSKEGON MI 49444  
MUSKEGON  
**CONTACT:**

**REV:** 9/1/08  
**ID1:** C-0301-07  
**ID2:** 5-005664  
**STATUS:** OPEN  
**PHONE:**

**SITE INFORMATION**

**OWNER INFORMATION**

MUSKEGON COMMERCE BANK  
281 SEMINOLE RD  
MUSKEGON MI 49444

**OWNER COUNTRY** USA  
**CONTACT PERSON:**

**FACILITY ID:** 50005664  
**RELEASE SUBSTANCE:** Unknown,Unknown,Unknown  
**RELEASE NUMBER:** C-0301-07  
**DISTRICT:** GRAND RAPIDS DISTRICT OFFICE  
**RELEASE DATE:** NOV 14 1988  
**RELEASE STATUS:** OPEN  
**RELEASE CLOSED DATE:**

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** E APPLE AVE & S MILL IRON ROAD  
MUSKEGON MI 49442

**JOB:** ES42482  
MUSKEGON COUNTY

OTHER

**SEARCH ID:** 10      **DIST/DIR:** NON GC      **ELEVATION:**      **MAP ID:**

<b>NAME:</b> UNDEVELOPED PROPERTY-N OF APPLE AVE.	<b>REV:</b> 9/15/08
<b>ADDRESS:</b> APPLE AVE	<b>ID1:</b> BEA-1003-256
MUSKEGON MI 49442	<b>ID2:</b> 1239
MUSKEGON	<b>STATUS:</b> BEA
<b>CONTACT:</b>	<b>PHONE:</b>

**SITE INFORMATION**

<b>BEA NUMBER:</b>	1239
<b>DISTRICT:</b>	GRAND RAPIDS
<b>DATE RECEIVED:</b>	7/16/2003 12:59:00 AM
<b>SUBMITTER NAME:</b>	ZP PROPERTIES, LLC
<b>PETITION DISCLOSURE:</b>	0 - DISCLOSURE
<b>PETITION DETERMINATION:</b>	NO REQUEST
<b>CATEGORY:</b>	N - NO CHEMICAL
<b>DETERMINATION 20107a:</b>	NO REQUEST
<b>REVIEWER:</b>	HOPKINSH
<b>DIVISION ASSIGNED:</b>	ERD - ENVIRONMENTAL RESPONSE DIVISION

OTHER

**SEARCH ID:** 9      **DIST/DIR:** NON GC      **ELEVATION:**      **MAP ID:**

<b>NAME:</b> OUTLOT G , FORMER CWC/TEXTRON PLANT 3	<b>REV:</b> 9/15/08
<b>ADDRESS:</b> UNKNOWN	<b>ID1:</b> BEA-1103
MUSKEGON MI	<b>ID2:</b> 124
MUSKEGON	<b>STATUS:</b> BEA
<b>CONTACT:</b>	<b>PHONE:</b>

**SITE INFORMATION**

<b>BEA NUMBER:</b>	124
<b>DISTRICT:</b>	GRAND RAPIDS
<b>DATE RECEIVED:</b>	10/15/1996
<b>SUBMITTER NAME:</b>	FAMILY VIDEO
<b>PETITION DISCLOSURE:</b>	0 - DISCLOSURE
<b>PETITION DETERMINATION:</b>	NO REQUEST
<b>CATEGORY:</b>	N - NO CHEMICAL
<b>DETERMINATION 20107a:</b>	NO REQUEST
<b>REVIEWER:</b>	MOYERR
<b>DIVISION ASSIGNED:</b>	ERD - ENVIRONMENTAL RESPONSE DIVISION

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** E APPLE AVE & S MILL IRON ROAD  
MUSKEGON MI 49442

**JOB:** ES42482  
MUSKEGON COUNTY

OTHER

**SEARCH ID:** 8      **DIST/DIR:** NON GC      **ELEVATION:**      **MAP ID:**

**NAME:** FORMER COUNTY OWNED PROPERTY  
**ADDRESS:** APPLE AVE  
MUSKEGON MI 49442  
MUSKEGON  
**CONTACT:**

**REV:** 9/15/08  
**ID1:** BEA-1824  
**ID2:** 872  
**STATUS:** BEA  
**PHONE:**

**SITE INFORMATION**

**BEA NUMBER:** 872  
**DISTRICT:** GRAND RAPIDS  
**DATE RECEIVED:** 3/7/2001 12:59:00 AM  
**SUBMITTER NAME:** MUSKEGON ENTERPRISES, INC.  
**PETITION DISCLOSURE:** 0 - DISCLOSURE  
**PETITION DETERMINATION:** NO REQUEST  
**CATEGORY:** N - NO CHEMICAL  
**DETERMINATION 20107a:** NO REQUEST  
**REVIEWER:** COLONS  
**DIVISION ASSIGNED:** STD - STORAGE TANK DIVISION

OTHER

**SEARCH ID:** 7      **DIST/DIR:** NON GC      **ELEVATION:**      **MAP ID:**

**NAME:** 53+/- ACRES, T10N, R16W, SW 1/4 SEC. 17,  
**ADDRESS:** UNKNOWN  
MUSKEGON MI  
MUSKEGON  
**CONTACT:**

**REV:** 4/23/03  
**ID1:** BEA-1589  
**ID2:**  
**STATUS:** BEA  
**PHONE:**

**SITE INFORMATION**

**BEA NUMBER:** 635  
**PETITION DISCLOSURE:** 1 - PETITION  
**DISTRICT:** GRAND RAPIDS  
**DATE RECEIVED:** 12/9/1999  
**SUBMITTER NAME:** VERPLANK DOCK CO.  
**PETITION DETERMINATION:** AFFIRMED  
**CATEGORY:** N - NO CHEMICAL  
**DETERMINATION 20107a:** AFFIRMED  
**REVIEWER:** WHITEBL  
**DIVISION ASSIGNED:** ERD - ENVIRONMENTAL RESPONSE DIVISION

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** E APPLE AVE & S MILL IRON ROAD  
MUSKEGON MI 49442

**JOB:** ES42482  
MUSKEGON COUNTY

TRIBALLAND

<b>SEARCH ID:</b> 11	<b>DIST/DIR:</b> NON GC	<b>ELEVATION:</b>	<b>MAP ID:</b>
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<b>NAME:</b> BUREAU OF INDIAN AFFAIRS CONTACT INFORMATION	<b>REV:</b> 01/15/08
<b>ADDRESS:</b> UNKNOWN	<b>ID1:</b> BIA-49442
MI 49442	<b>ID2:</b>
MUSKEGON	<b>STATUS:</b>
<b>CONTACT:</b>	<b>PHONE:</b>

**BUREAU OF INDIAN AFFAIRS CONTACT INFORMATION**

<b>OFFICE:</b>	Midwest Regional Office
<b>CONTACT:</b>	TERRENCE VIRDEN, REGIONAL DIRECTOR
<b>ADDRESS:</b>	One Federal Drive Room 550 FORT SNELLING MN 55111-4007
<b>PHONE:</b>	Phone: 612-713-4400
<b>FAX:</b>	Fax: 612-713-4401

The Native American Consultation Database (NACD) is a tool for identifying consultation contacts for Indian tribes, Alaska Native villages and corporations, and Native Hawaiian organizations. The database is not a comprehensive source of information, but it does provide a starting point for the consultation process by identifying tribal leaders and NAGPRA contacts. This database can be accessed online at the following web address  
<http://home.nps.gov/nacd/>

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** E APPLE AVE & S MILL IRON ROAD  
MUSKEGON MI 49442

**JOB:** ES42482  
MUSKEGON COUNTY

UST

**SEARCH ID:** 3      **DIST/DIR:** 0.06 SE      **ELEVATION:** 654      **MAP ID:** 1

<b>NAME:</b> U-HAULS NEVADA REAL ESTATE CO	<b>REV:</b> 7/1/08
<b>ADDRESS:</b> 3587 EAST APPLE AVE	<b>ID1:</b> 0003380
MUSKEGON MI 49442	<b>ID2:</b> 00003380
MUSKEGON	<b>STATUS:</b> CLOSED
<b>CONTACT:</b> AL LEEK	<b>PHONE:</b> (616) 538-1810

**SITE INFORMATION:**

**TOTAL NUMBER OF TANKS:** 4

**OWNER:** U-HAULS NEVADA REAL ESTATE CO

PO BOX 21502  
PHOENIX AZ

**PHONE:** (602) 263-6647

**TANK INFORMATION:**

**TANK ID:** 1

**TANK STATUS:** REMOVED FROM GROUND

**TANK CAPACITY:** 10000

**INSTALLATION DATE:** APR 24 1984

**PRODUCT:** GASOLINE

**REMOVED/CLOSED:** FEB 3 1995

**TANK RELEASE DETECTION:**

**PIPE RELEASE DETECTION:**

**PIPE MATERIAL:** GALVANIZED STEEL

**PIPE TYPE:**

**CONSTRUCTION MATERIAL:** FIBERGLASS REINFORCED PLASTIC

**IMPRESSED DEVICE:** NO

**TANK ID:** 2

**TANK STATUS:** REMOVED FROM GROUND

**TANK CAPACITY:** 10000

**INSTALLATION DATE:** APR 24 1984

**PRODUCT:** GASOLINE

**REMOVED/CLOSED:** FEB 3 1995

**TANK RELEASE DETECTION:**

**PIPE RELEASE DETECTION:**

**PIPE MATERIAL:** GALVANIZED STEEL

**PIPE TYPE:**

**CONSTRUCTION MATERIAL:** FIBERGLASS REINFORCED PLASTIC

**IMPRESSED DEVICE:** NO

**TANK ID:** 3

**TANK STATUS:** REMOVED FROM GROUND

**TANK CAPACITY:** 8000

**INSTALLATION DATE:** APR 24 1984

**PRODUCT:** DIESEL

**REMOVED/CLOSED:** FEB 3 1995

**TANK RELEASE DETECTION:**

**PIPE RELEASE DETECTION:**

**PIPE MATERIAL:** GALVANIZED STEEL

- Continued on next page -



***Environmental FirstSearch  
Site Detail Report***

**Target Property:** E APPLE AVE & S MILL IRON ROAD  
MUSKEGON MI 49442

**JOB:** ES42482  
MUSKEGON COUNTY

UST

<b>SEARCH ID:</b> 3	<b>DIST/DIR:</b> 0.06 SE	<b>ELEVATION:</b> 654	<b>MAP ID:</b> 1
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**NAME:** U-HAULS NEVADA REAL ESTATE CO  
**ADDRESS:** 3587 EAST APPLE AVE  
MUSKEGON MI 49442  
MUSKEGON  
**CONTACT:** AL LEEK

**REV:** 7/1/08  
**ID1:** 0003380  
**ID2:** 00003380  
**STATUS:** CLOSED  
**PHONE:** (616) 538-1810

<b>PIPE TYPE:</b>	
<b>CONSTRUCTION MATERIAL:</b>	FIBERGLASS REINFORCED PLASTIC
<b>IMPRESSED DEVICE:</b>	NO
<b>TANK ID:</b>	4
<b>TANK STATUS:</b>	REMOVED FROM GROUND
<b>TANK CAPACITY:</b>	1000
<b>INSTALLATION DATE:</b>	APR 24 1984
<b>PRODUCT:</b>	KEROSENE
<b>REMOVED/CLOSED:</b>	FEB 3 1995
<b>TANK RELEASE DETECTION:</b>	
<b>PIPE RELEASE DETECTION:</b>	
<b>PIPE MATERIAL:</b>	GALVANIZED STEEL
<b>PIPE TYPE:</b>	
<b>CONSTRUCTION MATERIAL:</b>	FIBERGLASS REINFORCED PLASTIC
<b>IMPRESSED DEVICE:</b>	NO

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** E APPLE AVE & S MILL IRON ROAD  
MUSKEGON MI 49442

**JOB:** ES42482  
MUSKEGON COUNTY

UST

<b>SEARCH ID:</b> 2	<b>DIST/DIR:</b> 0.06 SE	<b>ELEVATION:</b> 654	<b>MAP ID:</b> 1
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<b>NAME:</b> U-HAUL <b>ADDRESS:</b> 3587 EAST APPLE AVE MUSKEGON MI 49442 MUSKEGON <b>CONTACT:</b>	<b>REV:</b> 7/01/01 <b>ID1:</b> 9261079 <b>ID2:</b> <b>STATUS:</b> AST <b>PHONE:</b>
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**SITE INFORMATION:**

<b>TANK ID:</b>	1
<b>TANK STATUS:</b>	Currently in Use
<b>TANK CAPACITY:</b>	1,000
<b>PRODUCT:</b>	LPG

<b>OWNER:</b>	U-HAUL 3587 APPLE AVE MUSKEGON MI
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<b>PHONE:</b>	( ) -
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<b>TANK ID:</b>	2
<b>TANK STATUS:</b>	Currently in Use
<b>TANK CAPACITY:</b>	1,000
<b>PRODUCT:</b>	LPG

**TANK INFORMATION:**

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** E APPLE AVE & S MILL IRON ROAD  
MUSKEGON MI 49442

**JOB:** ES42482  
MUSKEGON COUNTY

UST

<b>SEARCH ID:</b> 1	<b>DIST/DIR:</b> 0.06 SE	<b>ELEVATION:</b> 654	<b>MAP ID:</b> 1
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**NAME:** U-HAUL  
**ADDRESS:** 3587 EAST APPLE AVE  
MUSKEGON MI 49442  
MUSKEGON

**REV:** 7/01/01  
**ID1:** 9261068  
**ID2:**  
**STATUS:** AST  
**PHONE:**

**CONTACT:**

**SITE INFORMATION:**

**TANK ID:** 1  
**TANK STATUS:** Removed from Ground  
**TANK CAPACITY:**  
**PRODUCT:** LPG

**OWNER:** U-HAUL  
2160 HENRY ST  
MUSKEGON MI

**PHONE:** (616) 759-0971

**TANK INFORMATION:**

**Environmental FirstSearch**  
**Site Detail Report**

**Target Property:** E APPLE AVE & S MILL IRON ROAD  
MUSKEGON MI 49442

**JOB:** ES42482  
MUSKEGON COUNTY

UST

**SEARCH ID:** 4      **DIST/DIR:** 0.07 SE      **ELEVATION:** 655      **MAP ID:** 2

<b>NAME:</b>		<b>REV:</b>	7/1/08
<b>ADDRESS:</b>	3592 EAST APPLE AVE	<b>ID1:</b>	0040235
	MUSKEGON MI 49442	<b>ID2:</b>	00040235
	MUSKEGON	<b>STATUS:</b>	ACTIVE
<b>CONTACT:</b>	MIKE BOES	<b>PHONE:</b>	(616) 392-7036

**SITE INFORMATION:**

**TOTAL NUMBER OF TANKS:** 2

**OWNER:** BEACON BOULEVARD CORP

11372 E LAKEWOOD BLVD  
HOLLAND MI49422-2365

**PHONE:** (616) 392-7036

**TANK INFORMATION:**

**TANK ID:** 1

**TANK STATUS:** CURRENTLY IN USE

**TANK CAPACITY:** 20000

**INSTALLATION DATE:** DEC 22 1999

**PRODUCT:** GASOLINE

**REMOVED/CLOSED:**

**TANK RELEASE DETECTION:** AUTOMATIC TANK GAUGING,INTER MONITORING DOUBLE WALLED TANK

**PIPE RELEASE DETECTION:** AUTOMATIC LINE LEAK DETECTORS,INTERSTITIAL MONITORING DOUBLE WALLED PIPING

**PIPE MATERIAL:**

**PIPE TYPE:** PRESSURE

**CONSTRUCTION MATERIAL:** COMPOSITE(STEEL W/FIBERGLASS),DOUBLE WALLED

**IMPRESSED DEVICE:** NO

**TANK ID:** 2

**TANK STATUS:** CURRENTLY IN USE

**TANK CAPACITY:** 15000

**INSTALLATION DATE:** DEC 22 1999

**PRODUCT:** GASOLINE,DIESEL

**REMOVED/CLOSED:**

**TANK RELEASE DETECTION:** AUTOMATIC TANK GAUGING,INTER MONITORING DOUBLE WALLED TANK

**PIPE RELEASE DETECTION:** AUTOMATIC LINE LEAK DETECTORS,INTERSTITIAL MONITORING DOUBLE WALLED PIPING

**PIPE MATERIAL:**

**PIPE TYPE:** PRESSURE

**CONSTRUCTION MATERIAL:** COMPOSITE(STEEL W/FIBERGLASS),DOUBLE WALLED

**IMPRESSED DEVICE:** NO

## Environmental FirstSearch Descriptions

**NPL: EPA NATIONAL PRIORITY LIST** - The National Priorities List is a list of the worst hazardous waste sites that have been identified by Superfund. Sites are only put on the list after they have been scored using the Hazard Ranking System (HRS), and have been subjected to public comment. Any site on the NPL is eligible for cleanup using Superfund Trust money.

A Superfund site is any land in the United States that has been contaminated by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment.

FINAL - Currently on the Final NPL

PROPOSED - Proposed for NPL

**NPL DELISTED: EPA NATIONAL PRIORITY LIST Subset** - Database of delisted NPL sites. 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.

DELISTED - Deleted from the Final NPL

**CERCLIS: EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM (CERCLIS)**- CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL.

PART OF NPL- Site is part of NPL site

DELETED - Deleted from the Final NPL

FINAL - Currently on the Final NPL

NOT PROPOSED - Not on the NPL

NOT VALID - Not Valid Site or Incident

PROPOSED - Proposed for NPL

REMOVED - Removed from Proposed NPL

SCAN PLAN - Pre-proposal Site

WITHDRAWN - Withdrawn

**NFRAP: EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM ARCHIVED SITES** - database of Archive designated CERCLA sites that, to the best of EPA's knowledge, assessment has been completed and has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

NFRAP – No Further Remedial Action Plan

P - Site is part of NPL site

D - Deleted from the Final NPL

F - Currently on the Final NPL

N - Not on the NPL

O - Not Valid Site or Incident

P - Proposed for NPL

R - Removed from Proposed NPL

S - Pre-proposal Site

W – Withdrawn

**RCRA COR ACT: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES** - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984. RCRAInfo facilities that have reported violations and subject to corrective actions.

**RCRA TSD: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM**

TREATMENT, STORAGE, and DISPOSAL FACILITIES. - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

Facilities that treat, store, dispose, or incinerate hazardous waste.

**RCRA GEN: EPA/MA DEP/CT DEP** RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM GENERATORS - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

Facilities that generate or transport hazardous waste or meet other RCRA requirements.

LGN - Large Quantity Generators

SGN - Small Quantity Generators

VGN - Conditionally Exempt Generator.

Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List) facilities.

CONNECTICUT HAZARDOUS WASTE MANIFEST - Database of all shipments of hazardous waste within, into or from Connecticut. The data includes date of shipment, transporter and TSD info, and material shipped and quantity. This data is appended to the details of existing generator records.

MASSACHUSETTES HAZARDOUS WASTE GENERATOR - database of generators that are regulated under the MA DEP.

VQN-MA = generates less than 220 pounds or 27 gallons per month of hazardous waste or waste oil.

SQN-MA = generates 220 to 2,200 pounds or 27 to 270 gallons per month of waste oil.

LQG-MA = generates greater than 2,200 lbs of hazardous waste or waste oil per month.

**Federal IC / EC: EPA** BROWNFIELD MANAGEMENT SYSTEM (BMS) - database designed to assist EPA in collecting, tracking, and updating information, as well as reporting on the major activities and accomplishments of the various Brownfield grant Programs.

FEDERAL ENGINEERING AND INSTITUTIONAL CONTROLS- Superfund sites that have either an engineering or an institutional control. The data includes the control and the media contaminated.

**ERNS: EPA/NRC** EMERGENCY RESPONSE NOTIFICATION SYSTEM (ERNS) - Database of incidents reported to the National Response Center. These incidents include chemical spills, accidents involving chemicals (such as fires or explosions), oil spills, transportation accidents that involve oil or chemicals, releases of radioactive materials, sightings of oil sheens on bodies of water, terrorist incidents involving chemicals, incidents where illegally dumped chemicals have been found, and drills intended to prepare responders to handle these kinds of incidents. Data since January 2001 has been received from the National Response System database as the EPA no longer maintains this data.

**Tribal Lands: DOI/BIA** INDIAN LANDS OF THE UNITED STATES - Database of areas with boundaries established by treaty, statute, and (or) executive or court order, recognized by the Federal Government as territory in which American Indian tribes have primary governmental authority. The Indian Lands of the United States map layer shows areas of 640 acres or more, administered by the Bureau of Indian Affairs. Included are Federally-administered lands within a reservation which may or may not be considered part of the reservation.

BUREAU OF INDIAN AFFAIRS CONTACT - Regional contact information for the Bureau of Indian Affairs offices.

**State/Tribal Sites: MI DEQ** LIST OF CONTAMINATED SITES - database of Part 201 Sites. The data includes sic\_classification, contaminant, total score and score date.

**State/Tribal SWL: MI DEQ** SOLID WASTE LANDFILLS AND DISPOSAL SITES - database of solid waste landfills, disposal sites and transfers stations

**State/Tribal LUST: MI DEQ** LEAKING UNDERGROUND STORAGE TANK SITES LIST - database of sites that are open and corrective actions have not been completed as well as closed where corrective actions

have been completed.

**State/Tribal UST/AST:** *MI DEQ* UNDERGROUND STORAGE TANK FACILITIES LIST - database of active and closed facilities that are regulated under Part 211, Underground Storage Tank Regulations, of the Natural Resources and Environment Protection Act, 1994 PA 451 as amended (Act 451).

**State/Tribal Brownfields:** *MI DEQ* AVAILABLE BROWNFIELD PROPERTIES LISTING - database of specific brownfields sites that the Department of Environmental Quality has funded or assisted with cleanup at (including Part 201 and Part 213 sites).

**RADON:** *NTIS* NATIONAL RADON DATABASE - EPA radon data from 1990-1991 national radon project collected for a variety of zip codes across the United States.

**State Other:** *US DOJ* NATIONAL CLANDESTINE LABORATORY REGISTER - Database of 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 U.S. Department of Justice ("the Department"), and the Department has not verified the entry and does not guarantee its accuracy. All sites that are included in this data set will have an id that starts with NCLR.

**State Other:** *MI DEQ* BASELINE ENVIRONMENTAL ASSESSMENT(BEA) SITES - database of sites in which Baseline Environmental Assessments were performed. Under Part 211, Underground Storage Tank Regulations, of the Natural Resources and Environment Protection Act, 1994 PA 451 as amended (Act 451), Baseline Environmental Assessments are defined as an evaluation of environmental conditions which exist at a facility at the time of purchase, occupancy, or foreclosure that reasonably defines the existing conditions and circumstances at the facility so that in the event of a subsequent release, there is a means of distinguishing the new release from existing contamination.

**FI Map Coverage:** *PROPRIETARY* FIRE INSURANCE MAP AVAILABILITY - Database of historical fire insurance map availability.

## Environmental FirstSearch Database Sources

**NPL:** *EPA* Environmental Protection Agency

*Updated quarterly*

**NPL DELISTED:** *EPA* Environmental Protection Agency

*Updated quarterly*

**CERCLIS:** *EPA* Environmental Protection Agency

*Updated quarterly*

**NFRAP:** *EPA* Environmental Protection Agency.

*Updated quarterly*

**RCRA COR ACT:** *EPA* Environmental Protection Agency.

*Updated quarterly*

**RCRA TSD:** *EPA* Environmental Protection Agency.

*Updated quarterly*

**RCRA GEN:** *EPA/MA DEP/CT DEP* Environmental Protection Agency, Massachusetts Department of Environmental Protection, Connecticut Department of Environmental Protection

*Updated quarterly*

**Federal IC / EC:** *EPA* Environmental Protection Agency

*Updated quarterly*

**ERNS:** *EPA/NRC* Environmental Protection Agency

*Updated annually*

**Tribal Lands:** *DOI/BIA* United States Department of the Interior

*Updated annually*

**State/Tribal Sites:** *MI DEQ* Michigan Department of Environmental Quality.

*Updated annually*



**State/Tribal SWL:** *MI DEQ* Michigan Department of Environmental Quality.

*Updated annually*

**State/Tribal LUST:** *MI DEQ* Michigan Department of Environmental Quality.

*Updated quarterly*

**State/Tribal UST/AST:** *MI DEQ* Michigan Department of Environmental Quality.

*Updated quarterly*

**State/Tribal Brownfields:** *MI DEQ* Michigan Department of Environmental Quality.

*Updated quarterly*

**RADON:** *NTIS* Environmental Protection Agency, National Technical Information Services

*Updated periodically*

**State Other:** *US DOJ* U.S. Department of Justice

*Updated when available*

**State Other:** *MI DEQ* Michigan Department of Environmental Quality.

*Updated quarterly*

**FI Map Coverage:** *PROPRIETARY* Library of Congress

Catalogue of Maps Published by Sanborn Mapping and Geographic Information Service in February 1988®

ProQuest

Other internally produced datasets

*Updated quarterly*

***Environmental FirstSearch***  
***Street Name Report for Streets within 1 Mile(s) of Target Property***

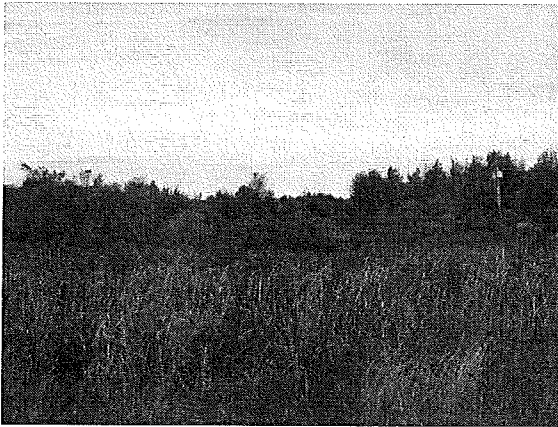
**Target Property:** E APPLE AVE & S MILL IRON ROAD  
MUSKEGON MI 49442

**JOB:** ES42482  
MUSKEGON COUNTY

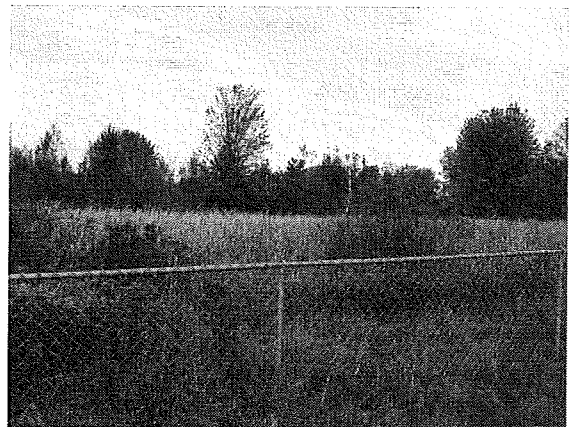
<b>Street Name</b>	<b>Dist/Dir</b>	<b>Street Name</b>	<b>Dist/Dir</b>
Apple Ave	0.01 SE		
Brooks Rd	0.59 SE		
Brooks Rd S	0.59 SE		
Debaker Rd	0.66 SW		
Donald Ave	0.44 SW		
Drent Rd	0.98 SE		
E Apple Ave	0.01 SE		
Elliot St	0.40 SE		
Escanaba Ln	0.96 NW		
Forest Edge Rd	0.94 NE		
Frost St	0.95 SW		
Genesee Ave	0.86 SW		
Glenrick Ave	0.47 SW		
Hall Rd	0.99 NW		
Jones St	0.50 SW		
Lenore Ave	0.42 SW		
Lintner Rd	0.93 NE		
Marquette Ave	0.84 NW		
McLaughlin Ave	0.50 SW		
Morningside St	0.76 SW		
Munising Ln	0.96 NW		
Oak Ave	0.48 NW		
Ryan Dr	0.74 NW		
S Dangle Rd	0.42 SW		
S Mill Iron Rd	0.08 SE		
S Walker Rd	0.92 SW		
State Highway 46	0.01 SE		
Sylvan Ave	0.82 SW		
Timberwood Rd	1.00 NE		
Todd St	0.76 SW		
Tompkins Tr	0.89 NE		
Violet Ave	0.77 SW		
Wesley Ave	0.63 NW		
Willow Wood Dr	1.00 NW		
Woodland St	0.54 SW		
Woodview Dr	0.94 NE		

## **APPENDIX E**

### **Site Photographs**



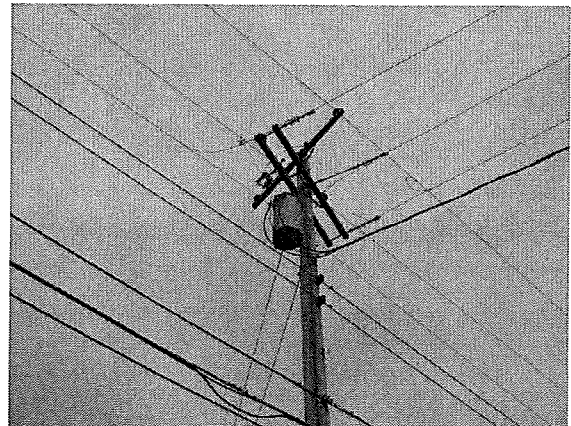
**Photo #1** View of the southern portion of the site looking north.



**Photo #2** View of the on-site stormwater detention pond.



**Photo #3** View of the east portion of the site looking west.



**Photo #4** View of an on-site pole-mounted transformer.



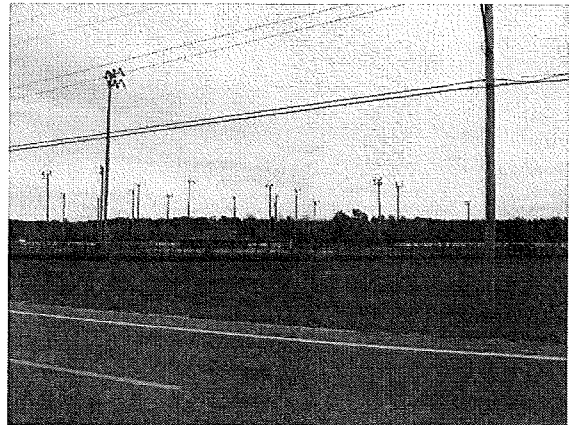
**Photo #5** View of a drainage ditch located along the western site boundary.



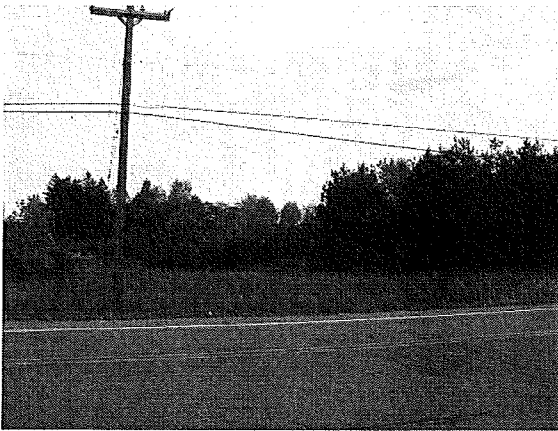
**Photo #6** View of forested land located to the adjacent north of the site.



**Photo #7** View of a residential building located to the adjacent north of the site.



**Photo #8** View of South Milliron Road followed by the Muskegon Charter Township Softball World located to the adjacent east of the site.



**Photo #9** View of South Milliron Road followed by vacant land located to the adjacent east of the site.



**Photo #10** View of a McDonald's restaurant and a BP gas station located to the adjacent southeast of the site, looking northeast.



**Photo #11** View of a McDonald's restaurant located to the adjacent southeast of the site, looking southeast.



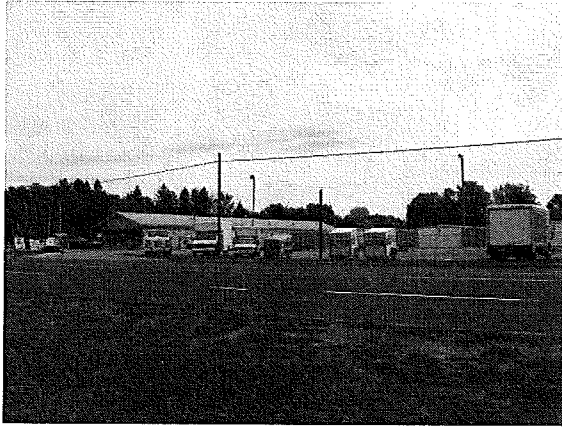
**Photo #12** View of the BP gas station located to the adjacent southeast of the site, looking south.

McDonald's #211425

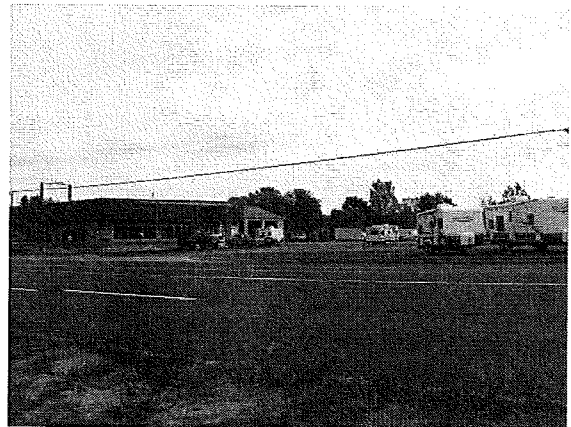
94089085.34

Date Photos Taken: October 14, 2008

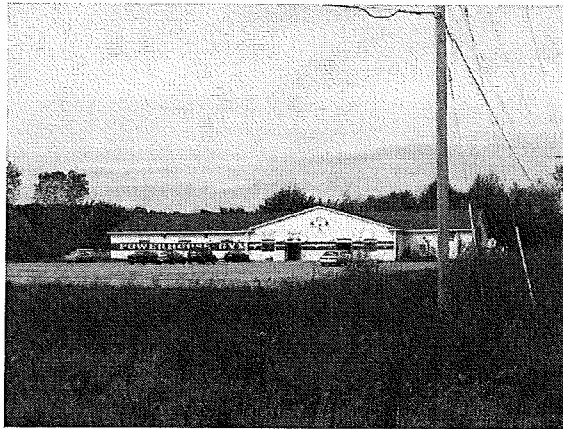
Terracon



**Photo #13** View of East Apple Avenue followed by the western portion of the U-Haul & Hitch World located to the adjacent south of the site.



**Photo #14** View of East Apple Avenue followed by Fun N Sun RV, Inc. located to the adjacent south of the site.



**Photo #15** View of the Powerhouse Gym and associated parking lot located to the adjacent west of the site.

## **APPENDIX F**

### **Credentials**

## LINDY M. BREEDON

### ENVIRONMENTAL SCIENTIST

#### PROFESSIONAL EXPERIENCE

Ms. Breedon has experience in ordering environmental database reports, proper identification of the site, gathering and organizing data for historical investigations, interpretation of aerial and topographic maps as well as organizing the entire file for use by the project manager. Ms. Breedon has performed these services for all types of Phase I Environmental Site Assessments on a wide variety of properties.

Ms. Breedon performs and conducts project management duties for Phase I Environmental Site Assessments which include site reconnaissance, historical interviews, regulatory database review, city directory and regulatory agency file research and analysis; compilation, review, and analysis of aerial photographs and topographic maps.

#### PROJECT EXPERIENCE

- Gas Stations
- High-rise Office Buildings
- Oil & Gas Transfer Facilities
- Single Occupancy Buildings
- Multi-tenant Buildings
- Repair Shops
- Marinas
- Apartment Complexes
- Undeveloped/Vacant Land
- Agricultural Land

## Terracon

#### EDUCATION

*Bachelor of Science, Environmental  
Science and Physical Geography,  
Nipissing University, Canada, 2005*  
*Geomatics Certificate, Nipissing  
University, Canada, 2005*

#### CERTIFICATIONS

*EPA Accredited Asbestos Inspector*  
*TDSHS Licensed Asbestos Inspector  
(License No. 602832)*  
*TDSHS Licensed Mold Assessment  
Technician (License No. MAT1024)*  
*TDSHS Lead Inspector and Risk  
Assessor Training Program  
(Certificate No. 08003 and 08002)*  
*TDSHS Licensed Lead Risk Assessor  
(License No. 2070861)*  
*American Red Cross Standard First Aid  
& CPR Training*

#### WORK HISTORY

*Terracon - Environmental Scientist, April  
2006 – present.*  
*Geospec Engineering, Ltd., Canada –  
Environmental Assistant, September  
2005 – March 2006.*

#### AFFILIATIONS

*The North Texas Association of  
Environmental Professionals*



# JOHN B. SALLMAN, P.G., CAPM

## SPECIAL PROJECTS GROUP MANAGER - DALLAS, TEXAS

### PROFESSIONAL EXPERIENCE

Mr. Sallman is an environmental geologist in Terracon's Dallas, Texas office. He has over 11 years of experience in environmental consulting. He is currently responsible for the management of the Special Projects Group in Dallas and Due Diligence Services in Mexico and has experience in performing all aspects of Phase I and Phase II site assessments and investigations.

Mr. Sallman is responsible for the management and overview of over 250 environmental site assessments per year and has participated in more than 3,000 Phase I and Phase II projects. He has experience with projects ranging from residential and light commercial properties to industrial manufacturing, EPA CERCLA facilities, EPA Brownfield sites, PST facilities, LPST facilities, RCRA hazardous waste generators and solid waste landfill facilities.

He has 10 years experience in client interaction and marketing with numerous clients including private land owners, developers, local municipalities, major retail chains and large scale lending institutions. He is versed in working with EPA, OSHA and local regulatory agencies to aid clients with regulatory compliance. He is also skilled in managing budgets, cost estimating and scheduling of related remediation projects.

### PROJECT EXPERIENCE

#### AMERICAN AIRLINES CENTER/VICTORY DEVELOPMENT - DALLAS, TEXAS

Conducted Phase I Environmental Site Assessments and subsequent subsurface investigations on over 20 separate parcels of urban brownfield properties comprising the location of the American Airlines Center in Dallas and ancillary mixed use development. Assisted in obtaining over 30 risk based closures through the TCEQ Voluntary Cleanup Program in an approximate twenty four month remediation period.

#### • Power Plant – Dallas, Texas

Conducted a Phase I Environmental Site Assessment on an inactive power plant. The power plant was originally fueled with bunker C fuel oil and switched to coal. Identified RECs associated with fuel oil releases, non-native fill material, PCBs and various power plant operations. Conducted Extensive subsurface investigations to evaluate the RECs. Identified issues associated with the non-native fill material and various fuel oil releases.

#### • Industrial Facility – Sherman, Texas

Conducted extensive subsurface investigations to evaluate the geologic and hydrogeologic conditions on an approximate 700 acre campus occupied by a computer chip manufacturer with an extensive release of chlorinated solvents. Divided the site into four separate hydrogeologic regimes; non-groundwater bearing zone, Class 3 Groundwater, Class 2 Groundwater, and a deeper aquifer containing Class 2 Groundwater. Conducted an Ecological Risk Assessment including the collection of surface water and sediment

### EDUCATION

*Master of Science, Geological Sciences,  
1996, Michigan State University*

*Bachelor of Science, Environmental  
Geology, 1994, Southern Methodist  
University*

### PROFESSIONAL EDUCATION & CERTIFICATIONS

*TNRCC TRRP Training Program, Modeling  
and PCL Development Under the TRRP  
Rule*

*Licensed Professional Geoscientist, License  
No. 219, State of Texas, March 2003*

*Registered Professional Geologist (P.G.),  
I.D. # 004456; State of Tennessee,  
February 1999*

*TCEQ Corrective Action Project Manager,  
CAPM #01483, November 2000*

*40 Hour OSHA Hazardous Waste Site &  
Waste Management Training*

### AFFILIATIONS

*North Texas Association of Environmental  
Professionals, 1996-1997, 2004-present,  
Program Coordinator, 2006-2007,  
President, 2007-present*

*Society of Texas Environmental  
Professionals, 2005-present*

*American Society for Testing and Materials,  
E-50 Committee for Vapor Intrusion, Co-  
chair of the Terminology Committee,  
2005-present*

### WORK HISTORY WORK HISTORY

*Terracon – Dallas, TX, Special Projects  
Group Manager – 2006-present*

*Terracon – Dallas, TX, Manager of Due  
Diligence Services – Dallas Office, 2005-  
2006*

*Terracon – Dallas, TX, Manager of ESA  
Services - Dallas Office, 2002-2005*

*Titan Engineering – Dallas, TX, Project  
Geologist, 2000-2002*

*Ensicon Corporation – Dallas, TX, Hiring  
Specialist, 2000*

*HBC Engineering – Dallas, TX, Project  
Geologist, 1996-2000*

samples along a potentially impacted creek.

- **Industrial Facility – Dallas, Texas**

Conducted subsurface investigation and groundwater monitoring activities to evaluate historic releases of chlorinated and petroleum hydrocarbon-based solvents on an approximate 400 acre campus occupied by a semi-conductor manufacturer. Developed a site-wide closure for implementation under the TCEQ Voluntary Cleanup Program. The closure plan included nine separate source areas, off-site groundwater impacts, ecological assessment of two potentially impacted surface waters, and investigation of Solid Waste management Units within the impacted areas.

- **Environmental Site Assessments & Investigations**

Management of multi-site Phase I Environmental Site Assessments and Phase II Environmental Site Investigations in association with a multi site real estate transaction. Review of properties for the specific purpose of evaluating environmental condition, providing recommendations for additional work and evaluating potential environmental liability.

Managed the completion of Phase I Environmental Site Assessments and Phase II Environmental Site Investigations for a portfolio of light industrial properties valued at over \$1B.

- **Environmental Site Assessments & Investigations**

Managed the completion of Environmental Site Assessments, seven Phase II Environmental Site Investigations and eight wetland evaluations for 184 sites in a portfolio of light industrial properties. The total valuation of the portfolio was over \$1B.

**PUBLICATIONS**

*The Worst Has Happened – A Phase II  
Waste Investigation Tale*, Pollution  
Engineering, August 2005

*Meetings Can Be an Effective Business  
Strategy*, Land Development Today,  
December 2006