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PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT

FORMER ROGELL GOLF COURSE
18600 AND 18601 BERG ROAD DETROIT, MICHIGAN

SME Project Number: 077832.00.001.003
February 23, 2018

February 23, 2018

Mr. Orza Robertson
Economic Development Corporation of the City of Detroit
500 Griswold, Suite 2200
Detroit, Michigan 48226

RE: Phase I Environmental Site Assessment Report
Former Rogell Golf Course
18600 and 18601 Berg Road
Detroit Michigan
SME Project No. 077832.00.001.003

Dear Mr. Robertson:

We have completed a Phase I Environmental Site Assessment (ESA) of the above-referenced property, hereinafter referred to as the Property. The enclosed Phase I ESA report presents our interpretation of site conditions at the time the Phase I ESA was completed, based on field observations, a review of readily available historical and regulatory records, and interviews.

The Phase I ESA was requested to identify recorded and readily observable recognized environmental conditions associated with the Property. We understand the Economic Development Corporation of the City of Detroit will rely upon the professional opinions and representations contained in the report in accordance with the terms and conditions agreed upon for the project. This reliance is not to be construed as a warranty or guarantee on the part of SME.

If you have any questions concerning this report, or if additional services are required, please contact us.

Sincerely,

SME

Anita H. Ketola, CHMM
Project Consultant

Matthew A. Vander Eide, PG, CPG
Senior Project Geologist

TABLE OF CONTENTS

1. SUMMARY	1
2. INTRODUCTION	4
2.1 PURPOSE	4
2.2 DETAILED SCOPE OF SERVICES	5
2.3 SIGNIFICANT ASSUMPTIONS	5
2.4 LIMITING CONDITIONS AND EXCEPTIONS	5
2.5 SPECIAL TERMS AND CONDITIONS	5
2.6 RELIANCE	5
3. USER-PROVIDED INFORMATION	7
3.1 REASON FOR THE PHASE I ESA	7
3.2 RECORDED ENVIRONMENTAL CLEANUP LIENS AND ACTIVITY AND USE LIMITATIONS (AULS)	7
3.3 SPECIALIZED KNOWLEDGE AND EXPERIENCE	7
3.4 RELATIONSHIP OF PURCHASE PRICE TO VALUE	7
3.5 COMMONLY KNOWN OR REASONABLY ASCERTAINABLE INFORMATION	7
3.6 PROCEEDINGS INVOLVING THE PROPERTY	8
4. RECORDS REVIEW	9
4.1 ENVIRONMENTAL RECORD SOURCES	9
4.2 ADDITIONAL ENVIRONMENTAL RECORD SOURCES	12
4.2.1 COUNTY ENVIRONMENTAL HEALTH DEPARTMENT	12
4.2.2 LOCAL FIRE DEPARTMENT	12
4.2.3 STATE AGENCY FOR OIL AND GAS WELLS	14
4.2.4 OTHER RECORD SOURCES	14
4.3 PHYSICAL SETTING SOURCE(S)	15
4.3.1 USGS - CURRENT 7.5 MINUTE TOPOGRAPHIC MAP	15
4.3.2 OTHER NON-PRACTICE PHYSICAL SETTING SOURCES	15
4.4 HISTORICAL USE INFORMATION FOR THE PROPERTY	15
4.4.1 STANDARD HISTORICAL SOURCES	15
4.4.2 HISTORICAL USE SUMMARY	16
4.4.3 HISTORICAL USE INFORMATION ABOUT SURROUNDING AREAS	18
5. SITE RECONNAISSANCE	20
5.1 METHODOLOGY AND LIMITING CONDITIONS	20
5.2 GENERAL PROPERTY SETTING	20
5.3 EXTERIOR OBSERVATIONS	20
5.3.1 CHEMICAL USE AND STORAGE	20
5.3.2 USTS/ASTS	20
5.3.3 PCB-CONTAINING EQUIPMENT	21

5.3.4 PITS, PONDS, AND LAGOONS.....	21
5.3.5 WASTE GENERATION, TREATMENT, STORAGE, AND DISPOSAL	21
5.3.6 OTHER EXTERIOR FEATURES.....	21
5.4 INTERIOR OBSERVATIONS	21
5.4.1 CHEMICAL USE AND STORAGE	22
5.4.2 USTS/ASTS	22
5.4.3 PCB-CONTAINING EQUIPMENT.....	22
5.4.4 DRAINS AND SUMPS.....	22
5.4.5 WASTE GENERATION, TREATMENT, STORAGE, AND DISPOSAL	22
5.4.6 HEATING/COOLING	22
5.4.7 OTHER INTERIOR FEATURES	22
5.5 ADJOINING SITES OBSERVATIONS.....	23
6. INTERVIEWS.....	24
6.1 INTERVIEWS WITH OWNER/SITE MANAGER/OCCUPANT	24
6.2 INTERVIEWS WITH LOCAL GOVERNMENT OFFICIALS.....	24
6.3 INTERVIEWS WITH OTHERS.....	24
7. VAPOR ENCROACHMENT.....	25
8. EVALUATION.....	26
8.1 FINDINGS AND OPINIONS	26
8.2 CONCLUSIONS.....	28
8.3 DATA GAPS AND LIMITING CONDITIONS	30
8.4 STATEMENT AND SIGNATURE OF ENVIRONMENTAL PROFESSIONAL	30
9. DEVIATIONS.....	31
10. NON-SCOPE SERVICES.....	31
11. REFERENCES.....	31
12. GENERAL COMMENTS.....	33

FIGURES

FIGURE 1: PROPERTY LOCATION MAP

FIGURE 2: PROPERTY FEATURES DIAGRAM

FIGURE 3: MAINTENANCE BUILDING INSET MAP

FIGURE 4: CLUB HOUSE INSET MAP

APPENDIX A

PHOTOGRAPHS

APPENDIX B

HISTORICAL RESEARCH DOCUMENTATION

APPENDIX C

USER QUESTIONNAIRE

USER PROVIDED QUIT CLAIM DEED

OWNER/OCCUPANT QUESTIONNAIRE

APPENDIX D

REGULATORY RECORDS DOCUMENTATION

APPENDIX E

SUMMARY OF SME'S JANUARY 2018 PHASE II ESA SAMPLING RESULTS

APPENDIX F

QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

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1. SUMMARY

SME's project team conducted a Phase I Environmental Site Assessment (ESA) of the Former Rogell Golf Course at 18600 and 18601 Berg Road in the City of Detroit, Wayne County, Michigan, hereinafter referred to as "the Property," in conformance with the scope and limitations of ASTM International (ASTM) Standard Practice E 1527-13 (Practice). Any exceptions to, or deletions from, this practice are described in Section 2.4 of this report. The general Property location is shown on Figure 1. Property features are shown on Figures 2, 3, and 4.

The purpose of this Phase I ESA was to satisfy relevant All Appropriate Inquiries (AAI) requirements to qualify Economic Development Corporation of the City of Detroit (the User) for applicable Landowner Liability Protections (LLP) under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended.

This Phase I ESA report is comprised of the following elements: 1) property description, 2) User-provided information, 3) records review, 4) site reconnaissance, 5) interviews, 6) findings, opinions, and conclusions.

FINDINGS

The Property was first developed prior to 1905 with four structures (a church building and possible residential buildings) along West Seven Mile Road and three buildings (likely residences) along Berg Road. These buildings were demolished between 1931 and 1952. A portion of the Property was developed as the Phoenix Golf Club, a nine-hole golf course, in 1913/1914. The Property was sold to the City of Redford in 1920, and redesigned as an 18-hole golf course in 1920/1921. The City of Detroit purchased the Property in 1945, and continued to operate the golf course. The on-site clubhouse and maintenance building were constructed in the 1930s and 1940s, and by the 1960s, a pump house for an irrigation well and a refrigeration house for an ice rink were present on the Property. During the 1970s and 1980s, and possibly longer, an ice skating rink was present in the basement of the clubhouse building. Greater Grace Temple purchased the Property in 2007, and golf course operations ceased in 2013.

Operations on the Property included the use of four underground storage tanks (USTs). A 550-gallon UST (identified as UST #1) for gasoline storage was installed south of the southwest corner of the maintenance building in 1955. This UST was removed in 2007, and a release was reported. Groundwater impacted with benzene at concentrations above Part 201 Michigan generic residential Cleanup Criteria (Part 201 criteria) remained in the area of UST #1. A 560-gallon UST (identified as UST #2) for gasoline storage was installed south of UST #1 in 1998 and was removed in 2007. No releases were reported following the removal of UST #2. Heating oil stored in a 1,500-gallon UST (UST #3), installation date and location unknown, was used to heat the clubhouse until the UST was replaced in 1981 with a 2,000-gallon UST (UST #4) for heating oil storage. UST #4 was taken out of service in 1990 and was removed in 2007. Soil was removed from around the area of UST #4, and soil impacted with heating oil constituents at concentrations above Part 201 criteria remained in the area of UST #4.

CONCLUSIONS

This assessment has revealed no evidence of recognized environmental conditions in connection with the Property except for the following:

- The presence of soil impacted with 1,2,4-trimethylbenzene (TMB) and 1,3,5-TMB at concentrations above Michigan generic residential cleanup criteria in the area of former UST #4 near the maintenance building (Sections 4.1, 4.2.2, and 4.2.4).

- The presence of soil impacted with arsenic, lead, mercury, dieldrin, and/or beta-hexachlorocyclohexane at concentrations above Michigan generic residential cleanup criteria in the tee box, fairway and green areas of the former golf course (Section 4.2.4).
- The presence of soil impacted with concentrations of arsenic, cadmium, mercury, selenium, and/or zinc above Michigan generic residential cleanup criteria near the locations of abandoned drums, the irrigation well pump house, the soil mound, and near the existing above-ground storage tanks along the southern wall of the maintenance building; and groundwater impacted with concentrations of arsenic and lead above Michigan generic residential cleanup criteria in the area of above-ground storage tanks formerly located along the northern wall of the maintenance building (Section 4.2.4).
- The potential for unreported and/or undetected releases of hazardous substances and/or petroleum products from former UST #3 (Sections 4.1 and 4.2.2).
- The potential for unreported and/or undetected releases of hazardous substances associated with historical golf course operations on the Property (Section 4.4.2).
- The potential for unreported and/or undetected releases of petroleum products from the diesel and gasoline ASTs located south of the maintenance building, fuel oil ASTs located in or near the maintenance building, fuel oil AST located in the basement of the club house, fuel oil AST located in the refrigeration house, and reported historical flammable liquids storage at the Property (Sections 4.2.2, 5.3.2, and 5.4.2).
- The potential for unreported and/or undetected releases of hazardous substances from the transformers located northwest of the maintenance building (Section 5.3.3).
- The potential for unreported and/or undetected releases of hazardous substances and/or petroleum products from the drums and buckets present on the ground around the maintenance building (Section 5.3.5).
- The potential for environmental impact associated with materials present in the soil mound located northeast of the maintenance building (Section 5.3.6).
- The potential for releases of lubricants/oils used in the refrigeration system in the refrigeration house to migrate to the subsurface (Section 5.4.7).
- The potential for migration of unreported and/or undetected releases associated with the north-adjointing Seven Mile and Consolidated Unit #2268 sites onto the Property (Section 4.1).
- The potential for migration of unreported and/or undetected releases of hazardous substances and/or petroleum products onto the Property from the historical auto repair and dry cleaning operations on adjoining and nearby sites located up-gradient (generally north and northeast of the Property (Section 4.4.3).
- The potential for migration of impacted groundwater and/or soil gas (vapor encroachment) from the northeast-adjointing Former Shell Station onto the Property (Section 4.1).

This assessment also identified the presence of groundwater impacted with benzene at concentrations above Part 201 criteria in the area of former UST #1 near the maintenance building as a controlled REC (CREC) in connection with the Property (Sections 4.1 and 4.2.2).

The following *Business Environmental Risks* were identified at the Property:

- The potential for unauthorized releases of Freon from the former ice rink refrigeration system during removal/demolition.
- The potential for encountering soil contaminated by unreported and/or undetected releases of coolant from pipes associated with the ice rink during construction activities in the area.
- The potential for encountering soil contaminated by unreported and/or undetected releases of heating oil near the former structures along Seven Mile Road and Berg Road during construction activities in the area. that heating oil USTs or ASTs may have been used at the former structures.

We identified no significant data gaps in connection with this Phase I ESA. Dense vegetation present on portions of the Property limited our ability to observe the ground surface. In addition, we were unable to access the interiors of the maintenance building, irrigation pump house, refrigeration house, and the southern-most basement in the clubhouse. These limitations impaired our ability to identify additional RECs in connection with the Property.

The User acquiring the Property is the sole party responsible for complying with AAI requirements for LLP under CERCLA as an Innocent Purchaser, Bona Fide Prospective Purchaser, or Contiguous Property Owner, as applicable. The completion of a Phase I ESA, with statement by an Environmental Professional (EP) that it is compliant with AAI and/or the ASTM E 1527-13 Practice, may not be sufficient to provide CERCLA LLP.

The findings, opinions and conclusions presented above are intended to provide a summary of the pertinent findings of our Phase I ESA investigation. It should be noted that although this section is an integral part of the report, it should not be substituted in lieu of reading the entire report. The entire report must be read in order to fully understand the potential environmental concerns associated with the Property.

SME's Project Team was as follows:

Preparer:	Anita H. Ketola, CHMM
Environmental Professional (EP):	Sara I. Bals, EIT
Senior Technical Reviewer:	James M. Harless, PhD, CHMM

2. INTRODUCTION

SME's project team conducted a Phase I ESA of the Former Rogell Golf Course at 18600 and 18601 Berg Road, Detroit, Wayne County, Michigan (Figure 1). The Phase I ESA was conducted according to the ASTM International (ASTM) Practice E 1527-13 (Practice), which is accepted in the U.S. Environmental Protection Agency regulations as satisfying one component of the requirements of AAI under CERCLA.

At the time of the reconnaissance, the Property consisted of two parcels of land formerly developed with a golf course. The eastern, 93.62-acre parcel (18600 Berg Road) was developed with a 2,700 square-foot former maintenance building, former irrigation well pump house, a ticket booth building, and grass- and tree-covered areas that were formerly part of the golf course. The western, 29.77-acre parcel (18601 Berg Road) was developed with the former golf course clubhouse, a refrigeration house, two asphalt parking lots, and grass- and tree-covered land that was part of the former golf course. The Rouge River flowed from north to south on the western parcel.

Berg Road separated the eastern and western parcels. The north side of the Property was bounded by Seven Mile Road, the south side by Grand River Avenue and Margareta Street, the east side by Lahser Road, and the west side by a residential neighborhood. The areas north and east of the Property were generally developed for commercial and residential uses. The areas south and west of the Property were generally residential neighborhoods. Electrical services are provided by DTE Electric, natural gas is provided by DTE Gas, and municipal water and sanitary sewer are provided by the City of Detroit. Storm water on the Property infiltrates into the ground, flows overland into drains on the Property, or flows into storm sewer catch basins in parking lots or roadways. The drains and storm sewers likely discharge to the Rouge River. A current Property Features Diagram (Figure 2) and two Inset Maps (Figures 3 and 4) were developed from the observations, field notes, photographs (Appendix A), and/or historical information collected during conduct of this Phase I ESA.

The Property's tax parcel identification numbers are 220166502 (18600 Berg Road) and 22016653 (18601 Berg Road). The parcel cards, which include the City's abbreviated legal descriptions, are attached in Appendix B. The current Property owner is the Greater Grace Temple/Greater Grace Temple of the Apostol.

Satisfying AAI is one component of the requirements for a Prospective Purchaser. For properties known to be contaminated with hazardous substances, the Prospective Purchaser also must comply with the continuing obligations defined in CERCLA to maintain the LLP to CERCLA.

Mr. Orza Robertson, on behalf of Economic Development Corporation of the City of Detroit (the User), authorized the conduct of this Phase I ESA to identify and evaluate potential environmental concerns associated with the Property prior to purchase. We were retained to conduct this Phase I ESA in accordance with our September 29, 2017, proposal number P02872.17.

2.1 PURPOSE

The purpose of this Phase I ESA was to satisfy relevant AAI requirements for qualifying the User of this report for applicable landowner liability protections under CERCLA (42 U.S.C. 9601). One of the primary objectives was to identify RECs in connection with the Property and assess the relative significance of the identified REC(s). The Practice defines a REC as:

...the presence or likely presence of any hazardous substances¹ or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions.

2.2 DETAILED SCOPE OF SERVICES

This Phase I ESA was conducted in conformance with the ASTM International Standard Practice on Environmental Site Assessments for Commercial Real Estate designation E 1527-13, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process." This Phase I ESA does not address the non-scope considerations as defined by Section 13 of the Practice with the exception of the identification of a *Business Environmental Risk*. The Practice defines a *Business Environmental Risk* as:

...a risk which can have a material environmental or environmental-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in this Practice.

Refer to Section 4.2.2 and 5.4.6 for additional information.

2.3 SIGNIFICANT ASSUMPTIONS

Pursuant to the Practice, we assume information provided by all sources and parties (including the User), is accurate and complete except where obvious inconsistencies or inaccuracies were identified.

2.4 LIMITING CONDITIONS AND EXCEPTIONS

Dense vegetation present on portions of the Property limited our ability to observe the ground surface, and we were unable to access the interiors of the maintenance building, irrigation pump house, refrigeration house, and the southern-most basement in the clubhouse. These limitations are discussed Section 8.3.

The Practice's scope of assessment was implemented without exceptions.

2.5 SPECIAL TERMS AND CONDITIONS

No special terms or conditions were imposed on the conduct of this Phase I ESA.

2.6 RELIANCE

We have prepared this report to be used and relied upon solely and exclusively by Economic Development Corporation of the City of Detroit (the User), in accordance with terms and conditions agreed upon for the project. No other party may rely upon our opinions, conclusions or reports unless SME has agreed to such reliance in writing.

¹ For the purposes of this Phase I ESA, a hazardous substance is a substance as defined in the ASTM Practice E 1527-13.

According to ASTM E 1527-13, the following components of a Phase I ESA must be conducted within 180 days of the date of acquisition or the date of the intended transaction:

- interview(s) with owners, operators, and occupants
- search for recorded environmental cleanup liens
- review of federal, tribal, state and local government records
- visual inspections of the Property and adjoining sites
- declaration by the environmental professional responsible for the assessment

A review of federal, tribal, state and local government records was completed on November 10, 2017, the earliest completion date of the required Phase I ESA components. This Phase I ESA report, therefore, is valid until May 9, 2018. If the User has not acquired the Property by that date, one or more components of the report must be updated in accordance with the ASTM Practice in order for the User to qualify for applicable landowner liability protections under CERCLA.

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3. USER-PROVIDED INFORMATION

As part of the ASTM Practice, the User has the responsibility to provide information described in the subsections below. Ms. Kate Humphrey, Public-Private Partnership Specialist with the City of Detroit Housing and Revitalization Department, the User's representative, provided information about the following issues through completion of the **User Questionnaire** in Appendix C.

3.1 REASON FOR THE PHASE I ESA

The User's representative reported the reason for this Phase I ESA was to support the User's all appropriate inquiries into environmental conditions of the Property, a component of the User's effort to qualify for one of the landowner liability protections to CERCLA applicable to the planned purchase of the Property.

3.2 RECORDED ENVIRONMENTAL CLEANUP LIENS AND ACTIVITY AND USE LIMITATIONS (AULS)

The User's representative reported that First American Title Insurance Company was retained to review recorded land title records on file with the Register of Deeds for Wayne County, Michigan, for the purpose of identifying recorded environmental cleanup liens and AULs related to the Property. No recorded environmental cleanup liens or AULs related to the Property were reported by the User.

Ms. Humphrey provided a quit claim deed for the Property dated June 27, 2007. Temporary and permanent easements were registered for the Property along Seven Mile Road, Berg Road, and near the Rouge River. The easements were associated with the planned installation of 160-foot drop-shafts for a combined sewer system and for river culvert installation. Ms. Humphrey stated the planned work associated with the 160-foot drop shafts was never completed, and that the Detroit Water and Sewerage Department does not intend to move forward with either project. The quit claim deed is included in Appendix C.

As part of the regulatory review required for this assessment, federal institutional controls/engineering control registries, and state and tribal institutional control/engineering control registries were researched for information related to possible liens against the Property. No liens were found for the Property.

3.3 SPECIALIZED KNOWLEDGE AND EXPERIENCE

The User's representative reported she was aware the Property had operated as a golf course for nearly 100 years, and that the Property was previously owned by the City of Detroit.

3.4 RELATIONSHIP OF PURCHASE PRICE TO VALUE

The User's representative reported that the purchase price of the Property reflected fair market value.

3.5 COMMONLY KNOWN OR REASONABLY ASCERTAINABLE INFORMATION

The User's representative was aware of the storage of chemicals related to golf course use and related operations.

3.6 PROCEEDINGS INVOLVING THE PROPERTY

The User's representative, based on personal knowledge and experience related to the Property, reported no known pending, threatened, or past litigation, administrative proceedings, or violations of environmental laws and regulations related to hazardous substances or petroleum products in, on, or arising from the Property.

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4. RECORDS REVIEW

4.1 ENVIRONMENTAL RECORD SOURCES

We retained Environmental Data Resources, Inc. (EDR) to query the state, federal, and tribal regulatory agency databases described in the Practice to identify regulated and/or environmentally impacted sites within the specified approximate minimum search distances. EDR also queried other readily available regulatory agency databases. The queried databases, associated search radii, and dates the lists were updated are listed in the EDR report (Appendix D). The EDR report also includes maps indicating the locations of these listed sites relative to the Property. Unmapped sites, as identified by EDR, are sites that for various reasons cannot be mapped through the EDR query system. Where possible, we attempted to locate the reported unmapped sites.

A summary of listed mapped and unmapped sites of concern is presented in the table included in this subsection. The other listed sites do not appear to represent RECs in connection with the Property because the type of listing and/or the distance from the Property limits the likelihood of migration of contamination onto the Property from these sites.

SITE NAME AND ADDRESS	APPROXIMATE DISTANCE AND DIRECTION FROM PROPERTY ¹	NAME OF LIST ²
Rogell Golf Course/City of Detroit 18690 Berg Road	Property	LUST, UST, WDS, RGA LUST, FINDS, ECHO, RCRA NonGen / NLR
Seven Mile Site 22500 W Seven Mile Road	North-adjointing	UST
Consolidated Unit #2268 22000 W Seven Mile Road	North-adjointing	LUST, UST
Former Shell Station 21640 W Seven Mile Road	Northeast-adjointing	AUL, BEA, LUST, INVENTORY
Former Bowlerama 21630 W Seven Mile Road	497 Feet east-northeast	BEA
7 Mile Telegraph Mini Mart 23540 W Seven Mile Road	0.15 Mile west-northwest	LUST, UST, Financial Assurance

¹EDR sites are mapped by address. Distances and/or site directions listed above may be adjusted from those reported by EDR to better represent field conditions and potential site boundaries.

²Definitions of acronyms and lists are presented in the EDR report.

We reviewed relevant documents provided by the Michigan Department of Environmental Quality – Remediation and Redevelopment Division (MDEQ-RRD) and the Michigan Department Labor and Regulatory Affairs – Storage Tank Division (DLARA-STD) for Property and the above sites of concern. We also reviewed January 11, 2008 Response Activity Report prepared by McDowell and Associates; a Phase II ESA provided by the City of Detroit Detroit Buildings, Safety Engineering and Environmental Department, Environmental Affairs Division (BSEED); and City of Detroit Fire Marshal Inspection Records (included in Appendix D). Summaries of our findings are presented in the following paragraphs.

PROPERTY (ROGELL GOLF COURSE / CITY OF DETROIT)

The Property was listed as in the LUST, UST, WDS, RGA LUST, FINDS, ECHO, and RCRA NonGen / NLR databases. The LUST, UST, and RGA LUST listings are associated with various USTs that were historically in use on the Property (discussed below). The Property was listed as a Resource and Conservation Recovery Act non-generator/handler of hazardous waste (RCRA NonGen / NLR). The listing was associated with historical generation of hazardous waste by the City of Detroit operations on

the Property. No violations associated with the City of Detroit's historical RCRA status were reported. The Property's listings in the Facility Index System/Facility Registry System (FINDS) and Enforcement and Compliance History Information (ECHO) databases are associated with the LUST and hazardous waste generator listings.

We reviewed the following site assessment and remedial action reports and information for the Property:

- *LUST Closure Report*, NTH Consultants, Ltd., June 24, 1999.
- *UST Site Assessment Report and Closure or Change-In-Service Registration Form*, McDowell & Associates, December 11, 2017
- *Response Activity Documentation*, McDowell & Associates, January 11, 2008
- DLARA Facility File #19067
- City of Detroit Fire Marshal Inspection records

Operations on the Property included the use of four underground storage tanks (USTs). The former locations of the USTs are shown on Figures 3 and 4. A 550-gallon UST (identified UST #1) for storage of gasoline was installed south of the southwest corner of the maintenance building in 1955. A 560-gallon UST (identified as UST #2) for storage of gasoline was installed south of UST#1 in 1998 and was removed in 2007. Heating oil stored in a 1,500-gallon UST (UST #3), installation date unknown, was used to heat the clubhouse until the UST was replaced with a 2,000-gallon UST (UST #4) for storage of the heating oil in 1981. UST#4 was taken out of service in 1990 and was removed in 2007. An excavation was also completed in the area north of the maintenance building to remove soil impacted by releases from former diesel ASTs and drums that were historically stored in this area. The former USTs and associated environmental response actions are discussed in the following paragraphs.

MAINTENANCE BUILDING AREA

A suspected release was reported in 1999 following the discovery of a small hole at the bottom of UST #1 during removal activities. Approximately 95 cubic yards of impacted soil surrounding the UST was excavated. Soil samples were collected from the excavation bottom and sidewalls and from the piping run adjacent to the dispenser. One groundwater sample was also collected from the excavation. No target analytes were measured in the soil samples at levels above the current applicable Part 201 residential cleanup criteria. The reported concentration of benzene in the groundwater sample was greater than the current lowest Part 201 criterion. The release was granted a conditional closure in August 1999. The following conditions were included in the MDEQ's closure letter:

- The owner/operator shall not remove or allow soil and/or groundwater to be removed from the Property without proper characterization.
- The owner/operator shall not engage in any activities that would alter the conditions for release closure including the potential for cross-contaminating deeper aquifers by drilling water supply wells through the shallow groundwater contamination.
- The owner/operator shall provide disclosure to potential purchasers or users of the Property regarding the conditions of site closure.
- Prospective purchasers or users of the Property should conduct all appropriate inquiry to determine if their proposed land use might alter the conditions of the site closure and result in unacceptable risks to human health.
- All monitoring wells must be abandoned.

The presence of benzene-impacted groundwater associated with former UST #1 represents a controlled REC (CREC) in connection with the Property.

Following the removal of UST #2 and the associated dispenser, soil samples were collected from below each end of the UST and from below the dispenser and submitted for laboratory analysis of unleaded gasoline constituents. No target analytes were measured at concentrations above current cleanup criteria. UST #2 does not represent a REC in connection with the Property.

In November 2007, two, 250-gallon diesel ASTs and two 55-gallon drums were removed from the area north of the maintenance building. Approximately 480 cubic yards of impacted soil was then excavated from the area where the diesel ASTs and drums had been located. Results from analyses of soil and groundwater samples collected to evaluate the cleanup demonstrated that no residual contamination was present at concentrations above applicable residential cleanup criteria. As reported, this cleanup was conducted to Michigan generic residential use standards in accordance with Michigan's environmental voluntary cleanup program statute; therefore, the reported contamination in this area is an historical recognized environmental condition (HREC) in connection with the Property.

CLUB HOUSE AREA

UST #3 was in use near the clubhouse from at least 1979 until it was replaced with UST#4 in 1981. There were no records documenting the removal of UST #3. The potential for unreported and/or undetected releases associated with UST #3 represents a REC in connection with the Property.

In November 2007, the contents of UST #4 were removed and the tank was excavated and properly disposed. Approximately 480 cubic yards of impacted soil was excavated and disposed off-site. Soil and groundwater samples to verify the cleanup effectiveness were collected and analyzed for volatile aromatic hydrocarbons. 1,2,4-trimethylbenzene (TMB), 1,3,5-TMB, and xylenes were reported present in soil samples at concentrations greater than applicable residential cleanup criteria. No target analytes were reported present in the groundwater sample. The impacted soil remaining in the area of UST #4 represents a REC in connection with the Property.

SEVEN MILE SITE

The north-adjointing Seven Mile Site was listed as a UST site. Based on our review of the EDR report, a 500-gallon UST for used oil was removed from the site in 1997. No release was reported following the removal of the UST. Based on the proximity of the site to the Property and its location up-gradient from the Property, it is possible that unreported and/or undetected releases from the UST has migrated onto the Property. This represents a REC in connection with the Property.

CONSOLIDATED UNIT #2268

The north-adjointing Consolidated Unit #2 site is listed as a UST and LUST site. Four, 8,000-gallon USTs for gasoline storage were removed from the site in 1992. There was no information regarding soil or groundwater sampling after the UST removals. The file documents included a monitoring well abandonment summary letter drafted by Fluor Daniel GTI, Inc., dated December 1, 1997. The letter stated that five, on-site monitoring wells had been abandoned on October 14, 1997. The presence of monitoring wells on the site indicate historical releases and the presence of contamination on the site. Based on the proximity of the site and its location up-gradient from the Property, it is possible that unremediated, unreported and/or undetected releases from the USTs have migrated onto the Property. This represents a REC in connection with the Property.

FORMER SHELL STATION

The northeast-adjointing former Shell Station is listed as AUL, BEA, LUST, INVENTORY, and LUST sites. We reviewed a BEA report dated October 9, 1996, which was completed by Progressive Environmental Consulting & Engineering, Inc. (PECE). PECE indicated that the site had been operated as a gasoline station from 1955 to 1984. Two gasoline USTs and one waste oil UST were removed from the site in 1984. There was no information regarding a release/contamination assessment after the UST removals.

Subsurface investigations were completed in 1995 and 1996 to evaluate potential environmental impact associated with the former USTs and gasoline station operations. Results from the assessments revealed the presence of volatile aromatic hydrocarbons (BTEX) at concentrations above residential cleanup criteria in soil and groundwater samples. The soil and groundwater impact reportedly extended off-site to the south, southwest, and west into the Lahser Road and West Seven Mile Road rights-of-way (ROWS). The potential for migration of impacted groundwater and/or soil gas (vapor encroachment) onto the Property from this site represents a REC in connection with the Property.

FORMER BOWLERAMA

The Former Bowlerama site, 497 feet east-northeast of the Property, was listed as a BEA site. We reviewed a BEA report for the site completed by SME in 1997. The western and northwestern portions of the site were once part of the above-listed Former Shell Station site. The results of a Phase II ESA of the site conducted by SME revealed the presence of benzene, ethylbenzene, xylenes, phenanthrene, arsenic, barium, lead, and zinc in soil and/or groundwater samples at concentrations above Michigan generic residential cleanup criteria. The potential for migration of this impact onto the Property represents a REC in connection with the Property.

7 MILE TELEGRAPH MINI MART

The 7 Mile Telegraph Mini Mart site, approximately 0.15 miles west-northwest of the Property, was listed as LUST, UST, and Financial Assurance sites. Based on our review of a LUST Closure Report and associated Closure Report Addendums completed by MEK Environmental Consultants (MEK) between 1999 and 2000, a release of an unknown substance was reported in 1999. MDK reported that the impact associated with the 1999 release was limited to the site. The MDEQ issued an unrestricted residential Tier I closure of the 1999 release.

We reviewed a UST Assessment Report for Tank Closure completed by Midwest Environmental (Midwest) in 2014. Three USTs for gasoline and one UST for kerosene were removed from the site in 2014. Midwest indicated that soil assessment results indicated the presence of gasoline constituents at concentrations above Michigan generic residential cleanup criteria. The report did not include figures, tables, or analytical results. It appears that no release was reported in 2014, and no additional information regarding the UST removals was available. Based on the distance of site from the Property, it is unlikely that the limited impact on the site has migrated onto the Property. Therefore, the site does not appear to represent a REC in connection with the Property.

4.2 ADDITIONAL ENVIRONMENTAL RECORD SOURCES

4.2.1 COUNTY ENVIRONMENTAL HEALTH DEPARTMENT

On November 28, 2017, we contacted the Detroit Buildings, Safety Engineering and Environmental Department, Environmental Affairs Division (BSEED) via e-mail transmission and requested all available information pertaining to environmental complaints, concerns or general records associated with the Property, including information on septic systems and water wells, if any, located on the Property.

On January 16, 2018, BSEED provided a May 21, 2017 Phase II ESA completed by McDowell & Associates for the Property. A summary of the Phase II ESA is provided in Section 4.2.4.

4.2.2 LOCAL FIRE DEPARTMENT

On November 28, 2017, we contacted the Detroit Fire Department via e-mail transmission and requested all available records associated with the Property regarding underground storage tanks, hazardous materials responses, or other environmental complaints or concerns.

On January 16, 2018, the Detroit Fire Department provided Fire Marshal Inspections records (Appendix D). A brief summary of the inspections are summarized below:

- 11/23/1954 – Violation for storage of a drum of gasoline within the maintenance building.
- 07/13-25/1955 – Application and subsequent approval for the installation of a new 500-gallon gasoline UST (UST #1).
- 03/19/1979 – Fire Marshal Inspection indicated the presence of a 1,500-gallon fuel oil UST (UST #3) associated with the club house, a 250-gallon fuel oil AST associated with the “Pro House”, a 200-gallon fuel oil tank associated with the maintenance building, and a 250-gallon heating oil AST associated with the refrigeration house. The pump house was reported to be heated by an electric heater. The inspection reported 400 pounds of Freon was in use for the freezing of the ice rink. The inspection reported one 500-gallon gasoline UST (UST #1) and one dispenser pump in use at the Property.
- 10/27/1981 – Application and subsequent approval for the installation of a 2,000-gallon fuel oil UST (UST #4) associated with the clubhouse. The application indicated this was a replacement system, and an installation sketch identified the location of the UST as approximately 20 feet west of Berg Road and two feet east of the sidewalk. The pipe from the UST extended approximately 30 feet to the basement boiler system in the clubhouse.
- 04/24/1984 – Permit issued for the “storage of flammable liquids of 101 to 500 gallons”.
- 06/29/1987 – Fire Marshal Inspection indicated the “storage of flammable liquids of 501 to 5,000 gallons” and noted a leaking pump supply line and torn/frayed hose on the gasoline pump in the maintenance yard. A violation was issued, and the pump was to be disconnected until repaired. These violations were noted as corrected following a 3/23/1988 re-inspection. The maintenance building was identified as heated by a fuel oil heater. The inspection reported that a gas-fired steam boiler was in use at the clubhouse.
- 07/06/1990 – Fire Marshal Inspection indicated a “questionable installation” of a fuel oil AST in the basement of the clubhouse. The oil was reported to be leaking into the basement from the underground heating oil tank (UST #4). During the inspection, it was reported by an employee that the heating oil UST (UST #4) in front of the building “has been leaking since December” and a new tank was installed in the basement. It was reported the leaking heating oil UST (UST #4) was to be removed. Rags were placed in the sewer in the basement, and a directive to remove the remaining liquids from the leaking heating oil UST was issued. An employee stated they would clean the fuel oil spilled in the basement of the clubhouse. The violation notice for this incident also directed the removal of the leaking fuel oil UST.
- 02/01/1993 – Fire Marshal Inspection indicated the skating rink was not in use. The inspection noted the use of a 500-gallon underground storage tank (UST #1) and two 250-gallon above ground fuel oil ASTs near the maintenance building. A 2/8/1994 Fire Marshal Inspection identified the location of the two fuel oil ASTs located outside the maintenance building near the northwest corner of the building.

Based on our review of the fire department records, we identified the potential for environmental impact associated with the reported leak from UST #4 as REC in connection with the Property. We also identified the potential for unreported and/or undetected releases of hazardous substances and/or petroleum products from UST #1 and UST #3; the fuel oil ASTs in the basement of the club house, refrigeration building, and near the maintenance building; and the storage of flammable liquids as a REC in connection with the Property.

The potential for unreported and/or undetected releases of Freon from the former refrigeration system located within the refrigeration house and releases of the coolant used in the pipes that ran to and under the ice rink are considered *Business Environmental Risks*. This is further discussed in Section 8.1.

4.2.3 STATE AGENCY FOR OIL AND GAS WELLS

We reviewed the Physical Setting Source Map provided by EDR for information regarding the presence of oil and gas wells located in the Property vicinity. According to the report, no oil or gas wells were located within one mile of the Property.

4.2.4 OTHER RECORD SOURCES

McDowell completed a Phase I ESA and Phase II ESA at the Property in 2007. Based on our review of the Phase II ESA (included in Appendix D), McDowell indicated that they had identified the potential for environmental impact associated with following as RECs in connection with the Property:

- 560-gallon gasoline UST (UST #2)
- 2,000-gallon heating oil UST (UST #4)
- Potential historic abandoned USTs
- Two diesel ASTs near the maintenance building
- Two 55-gallon waste oil drums
- Herbicide storage near the maintenance building
- Heating oil AST near the refrigeration house
- "Concentrated" debris, stockpiled soil, and soil disturbances
- Adjoining sites of interest

In order to evaluate these RECs, McDowell completed magnetometer surveys near the clubhouse and in maintenance building. The magnetometer surveys confirmed the location of the UST #2 and UST #4. McDowell then conducted a Phase II ESA that consisted of collecting and chemically analyzing soil and groundwater samples from 31 locations across the Property. Various VOCs and PAHs were measured at concentrations greater than Michigan generic residential cleanup criteria in soil samples collected near the diesel ASTs and drums located north of the maintenance building and near UST #4 near the club house. 1,2,4-Trimethylbenzene was measured at concentrations greater than Michigan generic residential cleanup criteria in groundwater samples collected from the same two locations.

As discussed in Section 4.1, UST #4 was subsequently removed, and soil was excavated from the area north of the maintenance building. The impacted soil remaining in the area of UST #4 represents a REC in connection with the Property. As reported in Section 4.1, contamination near the maintenance building was appropriately remediated to Michigan generic residential cleanup standards and thus is an HREC.

SME conducted a limited Phase II ESA at the Property on January 10 through 12, 2018. Soil and/or groundwater samples were collected from the areas of UST#, UST#2, and UST#4, a pole-mounted transformer located near the maintenance building, the irrigation well pump house, former above-ground storage tanks along the northern wall of the maintenance building, existing above-ground storage tanks along the southern wall of the maintenance building, abandoned drums, a soil mound, and the tee boxes, fairways and greens of six of the former golf course holes.

The chemical analysis results indicated soil present in the tee box, fairway and green areas of the former golf course contains one or more of the following constituents at concentrations above Michigan generic residential cleanup criteria: arsenic, lead, mercury, dieldrin, and beta-hexachlorocyclohexane. The chemical analysis results also indicated the presence of groundwater with concentrations of arsenic and lead above Michigan generic residential cleanup criteria in the location of former above-ground storage tanks along the northern wall of the maintenance building, and soil impacted with concentrations of arsenic, cadmium, mercury, selenium, and/or zinc near the locations of abandoned drums, the irrigation

well pump house, the soil mound, and near the existing above-ground storage tanks along the southern wall of the maintenance building. Sample locations and a summary or analytical analysis results are provided in Appendix E. The presence of soil and groundwater on the Property impacted at with various constituents at concentrations above Michigan generic residential cleanup criteria represents a REC in connection with the Property.

4.3 PHYSICAL SETTING SOURCE(S)

4.3.1 USGS – CURRENT 7.5 MINUTE TOPOGRAPHIC MAP

We reviewed a United States Geological Survey (USGS) 7.5-minute series Topographic Map, Redford Quadrangle, Michigan, compiled in 2014 depicted on Figure 1. The Property was hilly with elevations ranging from 605 feet to 635 feet above mean sea level (MSL). No structures were depicted on the Property. A tributary to the Rouge River was present on the eastern parcel, and the Rouge River was located on the western parcel. A drain was shown approximately one mile southwest of the Property. No other bodies of water were depicted within a one-mile radius.

Based on the review of the topographic map, groundwater flow is anticipated to be generally westward, with possibly a southerly component, toward the Rouge River on the eastern parcel and the northern portion of the western parcel and eastward toward the Rouge River on southern portion of the western parcel.

4.3.2 OTHER NON-PRACTICE PHYSICAL SETTING SOURCES

We reviewed the United States Department of Agriculture Web Soil Survey map in the EDR Radius Map Report (Appendix D) for information regarding the soils located at the Property. Soils at the Property consist of Kibbie fine sandy loam, Pella stratified silt loam to silty clay loam, Selfridge loamy sand, and Tedrow loamy fine sand.

4.4 HISTORICAL USE INFORMATION FOR THE PROPERTY

We consulted historical record sources described in the following subsections to develop a history of the Property's previous uses to help identify the likelihood of past uses having led to RECs in connection with the Property. The information reviewed was from reasonably ascertainable standard sources, defined in the Practice as publicly available, obtainable from its source within reasonable time and cost constraints, and practicably reviewable.

Data failures encountered, as defined by the Practice, are described in the following discussions of the respective historical sources. The Practice requires review of only as many of the standard historical sources as are reasonably ascertainable and likely to be useful.

4.4.1 STANDARD HISTORICAL SOURCES

The sources reviewed for this Phase I ESA are summarized below. Copies of source documents with approximate Property boundaries are included in Appendix B. A summary of findings from these reviews is presented in Section 4.4.2.

- **Aerial Photographs:** We reviewed aerial photographs, obtained from EDR, dated 1937, 1940, 1949, 1957, 1967, 1972, 1976, 1987, 1997, 1999, 2005, 2009, 2010, and 2012.
- **Fire Insurance Maps:** According to EDR, no fire insurance maps for the Property were available.

- **Property Tax Files:** We visited the City of Detroit Assessing Property and Land Search database and reviewed available records, which were comprised of property ownership and dates of sale, parcel and building details, and a shortened legal description.
- **Recorded Land Title Records:** We did not review land title records because information regarding the history of the Property was obtained from other historical sources identified herein. In addition, land title records typically provide information regarding ownership, but not use, of a property.
- **USGS Topographic Maps:** We reviewed the USGS 15 minute series Topographic Map Wayne Quadrangle, Michigan, compiled in 1905, and the USGS 7.5 minute series Topographic Map Redford Quadrangle, Michigan, compiled in 1936, 1941/1942, 1952, 1968, 1973, 1981/1983, and 2014 provided by EDR.
- **Local Street Directories:** We reviewed City Directory Abstracts or City Directory Images, provided by EDR, for the years 1931, 1935, 1940, 1956, 1965, 1970, 1973, 1977, 1982, 1987, 1992, 1995, 2000, 2005, 2010 and 2014. EDR reported that Berg Road was not listed in the directories prior to 1931.
- **Zoning/Land Use Records:** We reviewed the City of Detroit Zoning Ordinance and Zoning Map dated March 1, 2016. According to Zoning Map, the Property was zoned R-1, Single Family Residential District.
- **Other Historical Sources:** We completed an internet search of the Rogell Golf Course and reviewed the online Jewish Historical Society of Michigan website, Michigan Golfer Magazine May/June 2004 issue, a golfblogger.com article dated May 13, 2013, and a CBS Detroit news article dated September 19, 2014, in order to obtain additional information on the history of the Property. In addition, we reviewed the EDR Radius Map Report for listing of historical automobile service stations and/or historical dry cleaners on or in the area of the Property.

4.4.2 HISTORICAL USE SUMMARY

A summary of historical usage of the Property, back to 1905, the date of earliest readily available records as described above, is presented in the following table:

YEAR / PERIOD	IDENTIFIED / INFERRED USE	SOURCE (Date)
1905	Buildings and a church were present along the northern Property boundary and along Berg Road. No other structures were shown on the Property. The Rouge River was present on western portion of the Property, and an associated tributary was present on the eastern portion of the Property.	Topographic Map (1905)
1913 – 1914	The Property was developed as the Phoenix Golf Club, a nine-hole golf course.	Jewish Historical Society of Michigan Website

YEAR / PERIOD	IDENTIFIED / INFERRED USE	SOURCE (Date)
1920 – 2005	<p>The Property was sold to the City of Redford in 1920 and redesigned into an 18-hole golf course. The Property was sold to the City of Detroit in 1945.</p> <p>The structures along Berg Road appeared to have been removed, and the golf course clubhouse appeared to have been constructed on the western parcel by 1936.</p> <p>The structures along the northern Property boundary appeared to have been removed in the 1930s and 1940s. By 1949, the maintenance building had been constructed on the eastern parcel, and by 1957, the parking lot on the western parcel had been constructed. A possible ice rink or playground was also identified on the western portion of the Property between 1968 and 1983.</p> <p>The Property was identified at various times as the Wolverine Golf Association Inc., Redford Golf Club, Redford Municipal Golf Course, Redford Park, Redford Golf Pro Shop, Detroit Golf Redford, Redford Ice Skating, Redford Golf Course, Redford Recreation Center, Redford Golf Pro Shop, and City of Redford Golf Club.</p>	<p>Jewish Historical Society of Michigan Website (2018) Golf Blogger.com article (2013) Local Street Directories (1931-2005) Topographic Maps (1936-1983) Aerial Photographs (1937-2005)</p>
2007 – 2014	<p>Greater Grace Temple purchased the Property in 2007. Golf course operations ceased in May of 2013.</p>	<p>Assessing Information (2007) Aerial Photographs (2009-2012) Topographic Map (2014) CBS Detroit news article, 2014</p>

The Property had been developed by the time of the earliest available records (1905), so we were not able to determine the first developed use. This is a data failure for this Phase I ESA. Based on our review of the 1905 topographic map, the Property was located in a primarily residential area, and the indicated structures probably were residences. It is unlikely that the Property was developed with industrial or chemical-intensive operations prior to 1905. Therefore, this data failure did not impair our ability to identify additional RECs in connection with the historical use of the Property.

The potential for unreported and/or undetected releases of hazardous substances associated with historical golf course operations represents a REC in connection with the Property. Golf courses were historically treated extensively with herbicides and pesticides that contained various metals (i.e., arsenic, lead, and mercury). These metals, as well as herbicides and pesticides, often remain in the shallow soils after golf course operations cease. As indicated in Section 4.2.2, the potential for unreported and/or undetected releases of Freon 22 from the former ice rink refrigeration system and releases of the coolant used in the pipes that ran to and under the ice rink are considered *Business Environmental Risks*.

We reviewed readily available and reasonably ascertainable records in an attempt to identify the historical fuel source(s) for the former structures along the northern Property boundary and along Berg Road. We did not find records indicating the use of heating oil USTs or ASTs or of any releases to the environment; however, the documented use of heating oil on the Property in later periods indicates that heating oil use in those structures was likely. The potential for encountering impacted soil during construction activities

near the former building locations, resulting from releases of heating oil from associated heating oil USTs or ASTs, is considered a *Business Environmental Risk*.

4.4.3 HISTORICAL USE INFORMATION ABOUT SURROUNDING AREAS

An attempt was made to assess the historical uses of proximate sites by reviewing records referenced in Section 4.4. A summary of proximate sites of concern, as identified only to the extent that this information was revealed in the course of researching the Property itself, is presented in the table below:

YEAR / PERIOD	IDENTIFIED / INFERRED USE (Relationship to Property)	SOURCE (Date)
1956	Louis J Livernois / automotive service 22530 W Seven Mile Road (north-adjointing site)	EDR Historical Auto Listing (1956)
1969-1971	Big M Service (1969) / automotive service Jeffries Ray Marathon Service (1971) / automotive service 22000 W Seven Mile Road (north-adjointing site)	EDR Historical Auto Listing (1969-1971)
1931-1956	Otis Upchurch / automotive service 23350 Grand River Avenue (west-adjointing site)	EDR Historical Auto Listing (1931-1956)
1935	Jacob C Stumpf / automotive service 22684 W Seven Mile Road EDR Historical Auto (north-adjointing site)	EDR Historical Auto Listing (1935)
1940	Earl E Bilger / automotive service 22550 W Seven Mile Road (north-adjointing site)	EDR Historical Auto Listing (1940)
1965	Friendly Laundromat / drycleaner 22150 W Seven Mile Road (north-adjointing site)	EDR Historical Cleaner Listing (1965)
1985-1990	Edgewater Cleaners / drycleaners 22144 W Seven Mile Road (north-adjointing site)	EDR Historical Cleaner Listing (1985-1990)
1931-1940	Fred K Paller / automotive service 19101 Lahser Avenue (91 feet northeast)	EDR Historical Auto Listing (1931-1940)
1965-1970	Strohmer Gulf Service / automotive service 22100 W Seven Mile Road (north-adjointing site)	EDR Historical Auto Listing (1965-1970)
1935-1956	Whitefoot Thos / automotive service 19100-19102 Lahser Avenue (186 feet northeast)	EDR Historical Auto Listing (1935-1956)

YEAR / PERIOD	IDENTIFIED / INFERRED USE (Relationship to Property)	SOURCE (Date)
1965-1980	Seven Mile Lahser Shell Station (1965-1971) / automotive service Art Turpin Shell Service (1972-1980) / automotive service 21640 W Seven Mile Road (northeast-adjointing site)	EDR Historical Auto Listing (1965-1980)

The potential for unreported and/or undetected releases of hazardous substances associated with historical automotive repair or dry cleaning operations on the above-listed sites to migrate onto the Property represents a REC in connection with the Property.

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5. SITE RECONNAISSANCE

We conducted a site reconnaissance to identify evidence indicative of RECs in connection with the Property. Descriptions of the current Property use and conditions, including the use, storage, and/or treatment of hazardous substances and/or petroleum products and the generation, storage/accumulation, and/or disposal of chemical, petroleum or other contaminated wastes are presented in the following sections.

5.1 METHODOLOGY AND LIMITING CONDITIONS

On December 4, 2017, and January 23, 2018, Ms. Anita H. Ketola, CHMM, under the guidance of the EP, conducted a reconnaissance to observe Property conditions and features. Ms. Ketola was accompanied by Ms. Kate Humphrey, City of Detroit Housing & Revitalization Department, and Ms. Michelle Gilliland, City of Detroit Environmental Compliance Specialist. Ms. Ketola traversed the Property and the Property boundaries. She also observed the interiors and exteriors of the site buildings, with the limitations described below. In addition, the Property boundaries were observed from the adjoining sidewalks and roadways. Photographs taken during the reconnaissance, which illustrate observed conditions and surrounding areas, are contained in Appendix A.

Dense vegetation present on portions of the Property limited our ability to observe the ground surface in some areas. In addition, we were unable to access the interiors of the maintenance building, irrigation pump house, refrigeration house, and the southern-most basement in the clubhouse. These limitations are discussed Section 8.3.

5.2 GENERAL PROPERTY SETTING

The Property is located in a hilly area of the Old Redford neighborhood in northwest Detroit. Residential developments are located to the east, west, and south, and commercial developments are located east and north of the Property. West Seven Mile Road borders the Property to the north; Lahser Road borders the Property to the east; Berg Road lies between the eastern and western parcels; and Grand River Avenue and Margareta Street borders the Property to the south.

5.3 EXTERIOR OBSERVATIONS

The Property was an abandoned golf course. The eastern parcel was occupied by a maintenance building, irrigation well pump house, ticket booth building, large storm water swale, several natural/landscaped ponds and wetland areas, and grass-covered and wooded areas (former golf course). The western parcel was occupied by a golf club house, refrigeration house, asphalt-paved parking areas, two pedestrian/golf cart bridges, wooded areas, wetland areas, grass-covered areas, and the Rouge River. Ms. Ketola observed no evidence of stained soils or pavements, areas of stressed vegetation, or septic systems.

No RECs were identified unless indicated in the following subsections.

5.3.1 CHEMICAL USE AND STORAGE

Ms. Ketola observed no evidence of exterior chemical use or storage.

5.3.2 USTS/ASTS

Ms. Ketola observed one AST labeled for diesel fuel storage and one AST for labeled for the storage of unleaded gasoline south of the maintenance building on the eastern parcel. No stained soils or stressed

vegetation were observed around the ASTs. The potential for unreported and/or undetected releases of petroleum products from the ASTs represent a REC in connection with the Property.

5.3.3 PCB-CONTAINING EQUIPMENT

Ms. Ketola observed three, pole-mounted transformers northwest of the maintenance building. The PCB content of the transformers is unknown. No staining was observed beneath the transformers. However, the transformers were in poor condition. The potential for unreported and/or undetected releases of hazardous substances from the transformers represents a REC in connection with the Property.

5.3.4 PITS, PONDS, AND LAGOONS

Ms. Ketola observed two ponds and associated wetland areas on the eastern parcel. Wetlands and the Rouge River were observed on the western parcel.

5.3.5 WASTE GENERATION, TREATMENT, STORAGE, AND DISPOSAL

Ms. Ketola observed numerous abandoned tires around the maintenance building on the eastern parcel. She also observed metal and plastic 55-gallon drums and two 5-gallon buckets stored near the maintenance building and irrigation well pump house buildings on the eastern parcel. No labels were present on the drums. One 5-gallon bucket was labeled as Thompson Oil Company, and the second bucket was labeled as Textron Turf Protector. The potential for unreported and/or undetected releases of hazardous substances and/or petroleum products from the drums and buckets represents a REC in connection with the Property.

5.3.6 OTHER EXTERIOR FEATURES

Ms. Ketola observed two groundwater monitoring wells in the parking lot located northeast of the golf club house on the western parcel. The two monitoring wells were gauged on January 12, 2017. The depth to the bottom of the northern monitoring well was greater than 100 feet below ground surface (bgs) (greater than the length of the measuring tape), and the depth to the bottom of the southern monitoring well was approximately 86 feet bgs. Groundwater was measured in the northern monitoring well at 22.1 feet bgs and in the southern monitoring well at 8.8 feet bgs. The purpose for these wells is unknown.

Ms. Ketola observed a soil pile northeast of the maintenance building. She was unable to determine the origin of the soil pile. The potential for environmental impact associated with materials present in the soil mound represents a REC in connection with the Property.

5.4 INTERIOR OBSERVATIONS

The maintenance building was constructed of aluminum siding on a concrete slab. The irrigation pump house was constructed of wood siding walls on a concrete slab. The ticket booth was constructed of aluminum and glass walls; the floor construction was not determined. The clubhouse was constructed of wood, aluminum, and masonry walls and included two basements. The refrigeration house was constructed of masonry walls on a concrete slab. The roof of the refrigeration house was in poor condition, and a portion of the northern side of the roof had fallen into the building.

The interior of the maintenance building was not observed because the building was locked, and no key was available. The interior of the irrigation pump house and refrigeration house were observed through an open door, with limited available light. The pump house contained the irrigation well pump system. The refrigeration house contained the refrigeration system for the former ice rink. The ticket booth was observed through the windows. The clubhouse included a front desk check-in area, meeting hall, floor restrooms, offices, kitchen and walk-in refrigerator/cooler, utility room, and a basement restroom.

5.4.1 CHEMICAL USE AND STORAGE

Ms. Ketola observed three 1-gallon containers of ammonia and two 5-gallon containers of paint/epoxy stored in the clubhouse. Ms. Ketola observed no use or storage of chemicals within the irrigation well pump house or ticket booth. This chemical storage is *de minimus*.

5.4.2 USTS/ASTS

Ms. Ketola observed a rusted 250-gallon AST in the refrigeration house. Due to the poor condition of the building and the presence of debris blocking access to the AST, the AST could not be accessed to determine if liquids were present in the AST. The potential for an unreported and/or undetected release from the AST represents a REC in connection with the Property.

5.4.3 PCB-CONTAINING EQUIPMENT

Ms. Ketola observed no evidence of PCB-containing equipment in the clubhouse, pump house, refrigeration house, or ticket booth.

5.4.4 DRAINS AND SUMPS

Ms. Ketola observed no evidence of drains or sumps within the clubhouse pump house, refrigeration house, or ticket booth.

5.4.5 WASTE GENERATION, TREATMENT, STORAGE, AND DISPOSAL

Ms. Ketola observed no evidence of the generation, treatment, storage, or disposal of liquid or solid wastes within the pump house with the exception of one 5-gallon bucket. The contents of the bucket were not observed because access was blocked by piping. This limited waste generation does not appear to represent a REC in connection with the Property.

5.4.6 HEATING/COOLING

No heating or cooling systems were observed within the refrigeration house, pump house, or ticket booth. Two window air conditioning units were observed along the southern exterior wall of the clubhouse. The heating/cooling system for the maintenance building is not known.

5.4.7 OTHER INTERIOR FEATURES

Ms. Ketola observed a sign in the refrigeration building that identified the use of Freon 22. Based on historical Fire Department records (Section 4.2.2), the refrigeration system cooled an ice skating rink which appeared to be historically located west of the clubhouse. Typically, ice rink refrigeration systems utilized coolants (glycols or brine) that are cooled using a refrigerant (such as Freon) and piped beneath the ice rink. There was no observable evidence of a release from the coolant system. However, the potential for encountering environmental impact(s) from potential historical releases of Freon 22 and/or coolant during construction activities in this area is considered a *Business Environmental Risk*.

Ms. Ketola also observed staining on and around the refrigeration system in the refrigeration house. The staining was likely associated with the historical releases of compressor oils and other lubricants from the refrigeration system. The potential for releases of lubricants/oils used in the refrigeration system to migrate to the environment represents a REC in connection with the Property.

5.5 ADJOINING SITES OBSERVATIONS

Known current uses of adjoining sites are summarized in the following table:

DIRECTION	NAME ADDRESS	ACTIVITY
North	Greater Grace Temple Parking Lot - 22900 W Seven Mile Road	Church parking lot
	Car Wash - 22680 W Seven Mile Road	Car wash
	Vacant Apartments – 22570 W Seven Mile Road	Vacant apartments
	Embassy Apartments – 19110 Beaverland Street	Apartments
	Parking lot with two maintenance buildings – 22500 W Seven Mile Road	Parking lot and garage
	School building – 22400 W Seven Mile Road	School
	City of David Activity Center – 22340 W Seven Mile Road	Activity center
	Apartments – 22320 W Seven Mile Road	Apartments
	Nataki Talibah Schoolhouse Of Detroit – 19176 Northrop Street	School
	Former Used Car Lot – 22100-22140 W Seven Mile Road	Vacant
Retail Plaza – 21700-22040 W Seven Mile Road	Retail plaza	
East	Detroit Service Learning Academy – 21755-21605 W Seven Mile Road	School
	Residential Properties	Residential
	Margareta Park	Park
	Cemetery	Cemetery
South	Residential Properties	Residential
West	Oakwood Car Center – 23350 Grand River Avenue	Used car lot
	Residential	Residential
	Villa at Great Lakes Crossing – 22811 W Seven Mile Road	Apartments

The adjoining properties were observed from the perimeter of the property during the site reconnaissance and while driving along the adjoining roadways. No tanks, containers, or stressed vegetation indicative of hazardous substance use were observed. No RECs were identified during observation of adjoining sites.

6. INTERVIEWS

As part of the conduct of this Phase I ESA, Ms. Ketola, CHMM interviewed the following pertinent individuals other than the User of this report:

- Current Property owner (or representative) – Mr. Martin H. Hardy, Corporate Secretary for Greater Grace Temple
- State and/or local government officials – Ms. Kate Humphrey, Public-Private Partnership Specialist for City of Detroit Housing and Revitalization Department

6.1 INTERVIEWS WITH OWNER/SITE MANAGER/OCCUPANT

Mr. Martin H. Hardy, Corporate Secretary for Great Grace Temple, completed the Owner/Occupant Questionnaire (Appendix C). Mr. Hardy indicated the Property had been purchased in 2007 and that a maintenance building and clubhouse were present on the Property. Mr. Hardy indicated that a lagoon or settling pond was located on the Property. Mr. Hardy indicated that a 2,000-gallon heating oil tank (UST #4), a 250-gallon diesel tank (AST), and two 55-gallon waste oil drums are currently, or have been previously, stored on the Property. Mr. Hardy indicated that tanks (UST #2 and UST #4) located east of the clubhouse were removed in November 2007. Mr. Hardy identified the area near the maintenance building as a former location of a UST, of a release, and of stained soil prior to November 2007. Mr. Hardy indicated that historical environmental activities were documented in McDowell & Associates' Response Activity report dated January 2008. These environmental activities are discussed in Section 4.1.

On January 9 and 23, 2018, Ms. Ketola interviewed Mr. Hardy. Mr. Hardy was not aware of other prior reports or environmental concerns not described in the Owner/Occupant Questionnaire. Mr. Hardy indicated the maintenance building is currently used to store golf carts and lawn maintenance equipment. Mr. Hardy clarified that the lagoon or settling pond referenced in the questionnaire were part of the golf course landscaping. No additional RECs were identified based on our interview with Mr. Hardy.

6.2 INTERVIEWS WITH LOCAL GOVERNMENT OFFICIALS

On January 5, 2018, Ms. Kate Humphry provided a Quit Claim Deed for the Property dated June 27, 2007. This deed is discussed in Section 3.2.

6.3 INTERVIEWS WITH OTHERS

No other interviews were performed as part of this Phase I ESA.

7. VAPOR ENCROACHMENT

Vapors can encroach onto the Property and migrate into current or future structures as the result of a release of hazardous substances or petroleum products to the subsurface soil or groundwater at the Property or from migration of contamination from releases on proximate sites located hydraulically upgradient of the Property or with preferential pathways to the Property. We considered the following factors when assessing the likelihood of vapor encroachment at the Property. Please note, this assessment does not constitute a vapor encroachment screening as defined in ASTM E2600-10.

- Current use of the Property and proximate sites via visual reconnaissance (Section 5.0).
- Historic use of the Property and proximate sites via review of a regulatory database report (Section 4.1) and historical sources (Section 4.4).
- Physical setting of the Property and proximate sites (Section 4.3).

The following potential vapor encroachment sources were identified:

- Groundwater impacted with benzene in the area of former UST #1 near the maintenance building.
- Soil impacted with 1,2,4-TMB and 1,3,5-TMB in the area of former UST #4 near the maintenance building.
- Unreported and/or undetected releases of hazardous substances and/or petroleum products from former UST #3.
- Unreported and/or undetected releases of petroleum products from the diesel and gasoline ASTs located south of the maintenance building; fuel oil ASTs located in or near the maintenance building, in the basement of the clubhouse, and in the refrigeration house; and reported historical flammable liquids storage at the Property.
- Migration of contamination from unreported and/or undetected releases on the north-adjointing Seven Mile and Consolidated Unit #2268 sites.
- Migration of contamination from unreported and/or undetected releases of hazardous substances and/or petroleum products on the historical auto repair and dry cleaning operations sites upgradient (generally north and northeast) of the Property.
- Migration of impacted groundwater and/or soil gas from the northeast-adjointing Former Shell Station onto the Property.

8. EVALUATION

The findings, opinions and conclusions presented above are intended to provide a summary of the pertinent findings of our Phase I ESA investigation. It should be noted that although this section is an integral part of the report, it should not be substituted in lieu of reading the entire report. The entire report must be read in order to fully understand the potential environmental concerns associated with the Property.

8.1 FINDINGS AND OPINIONS

The Property was first developed prior to 1905 with four structures (a church building and possible residences) along West Seven Mile Road and three buildings (likely residences) along Berg Road. These buildings were demolished between 1931 and 1952. The Property was developed as the Phoenix Golf Club, a nine-hole golf course, in 1913/1914. The Property was sold to the City of Redford in 1920, and redesigned as an 18-hole golf course in 1920/1921. The City of Detroit purchased the Property in 1945, and continued to operate the golf course. In the 1930s and 1940s, the on-site clubhouse and maintenance building were constructed, and by the 1960s, an irrigation well pump house and refrigeration house were present on the Property. During at least the 1970s and 1980s, an ice skating rink was present in the basement of the on-site clubhouse building. Greater Grace Temple purchased the Property in 2007, and golf course operations ceased in 2013.

The following recognized environmental conditions (RECs) were identified at the Property:

- The presence of soil impacted with 1,2,4-TMB and 1,3,5-TMB at concentrations above Michigan generic residential cleanup criteria in the area of former UST #4 near the maintenance building (Sections 4.1, 4.2.2, and 4.2.4) - Fire department records indicate that UST #4 was leaking in the 1990s. During removal of the UST, TMBs were measured at concentrations above Michigan generic residential cleanup criteria in multiple soil samples collected from the area of former UST #4.
- The presence of soil impacted with arsenic, lead, mercury, dieldrin, and/or beta-hexachlorocyclohexane at concentrations above Michigan generic residential cleanup criteria in the tee box, fairway and green areas of the former golf course (Section 4.2.4).
- The presence of soil impacted with concentrations of arsenic, cadmium, mercury, selenium, and/or zinc above Michigan generic residential cleanup criteria near the locations of abandoned drums, the irrigation well pump house, the soil mound, and near the existing above-ground storage tanks along the southern wall of the maintenance building; and groundwater impacted with concentrations of arsenic and lead above Michigan generic residential cleanup criteria in the area of above-ground storage tanks formerly located along the northern wall of the maintenance building (Section 4.2.4).
- The potential for unreported and/or undetected releases of hazardous substances and/or petroleum products from former UST #3 (Sections 4.1 and 4.2.2) – No records were available regarding the removal of UST #3 or evidence of a release. Based on our knowledge of the filling and usage practices associated with USTs, the potential exists that releases of heating oil from this UST may have occurred during its use.
- The potential for unreported and/or undetected releases of hazardous substances associated with historical golf course operations on the Property (Section 4.4.2) – Golf courses were historically treated extensively with herbicides and pesticides that contained various metals (i.e., arsenic, lead, and mercury). These metals, as well as herbicide and pesticide residuals, often are contaminants in the shallow soils on golf courses, especially near greens and tee boxes.

- The potential for unreported and/or undetected releases of petroleum products from the diesel and gasoline ASTs located south of the maintenance building; fuel oil ASTs located in or near the maintenance building, in the basement of the club house, and in the refrigeration house; and reported historical flammable liquids storage at the Property (Sections 4.2.2, 5.3.2, and 5.4.2) – Based on our knowledge of AST filling and usage practices and flammable liquid storage practices, the potential exists that releases of gasoline, diesel fuel, and/or fuel oil may have occurred during usage of the ASTs and other flammable storage.
- The potential for unreported and/or undetected releases of hazardous substances from the transformers located northwest of the maintenance building (Section 5.3.3) – The transformers were in poor condition and it is possible that fluid from the transformers, possibly containing PCBs, have been released to the ground surface.
- The potential for unreported and/or undetected releases of hazardous substances and/or petroleum products from the drums and buckets present on the ground around the maintenance building (Section 5.3.5) – Based on the condition of the drums and buckets, it is possible that their contents have leaked onto the ground surface.
- The potential for environmental impact associated with materials present in the soil mound located northeast of the maintenance building (Section 5.3.6) – The soil pile is of unknown origin and contents, and the potential exists that it could be impacted with, and/or could contain, hazardous substances and/or petroleum products.
- The potential for releases of lubricants/oils used in the refrigeration system in the refrigeration house to migrate to the subsurface (Section 5.4.7) – Based on our knowledge of the mechanical equipment used in refrigeration systems and our observation of staining on the equipment and the floor of the refrigeration house, compressor oils and/or other lubricants used in the system have been released and may have migrated to the subsurface.
- The potential for migration of contamination from unreported and/or undetected releases of hazardous substances or petroleum products on the north-adjointing Seven Mile and Consolidated Unit #2268 sites onto the Property (Section 4.1) – Limited information was available regarding soil and groundwater conditions on these adjoining sites. Based on their proximity and location up-gradient from the Property, it is possible that unreported and/or undetected releases from operations on these sites have migrated onto the Property.
- The potential for migration of contamination from unreported and/or undetected releases of hazardous substances and/or petroleum products onto the Property from the historical auto repair and dry cleaning operations on adjoining and nearby sites located up-gradient (generally north and northeast of the Property (Section 4.4.3) – The sites adjoining and surrounding the Property were occupied by various auto repair or dry cleaning operations from the 1930s through the 1990s.
- The potential for migration of impacted groundwater and/or soil gas (vapor encroachment) from the northeast-adjointing Former Shell Station onto the Property (Section 4.1) – Confirmed soil and groundwater impact on this site reportedly extends off-site to the south, southwest, and west into the Lahser Road and West Seven Mile Road ROWs. It is possible that this impacted groundwater has migrated onto the Property past those roads and onto the Property.

The presence of groundwater impacted with benzene at concentrations above Michigan generic residential cleanup criteria in the area of former UST #1 near the maintenance building was identified as a CREC in connection with the Property (Sections 4.1 and 4.2.2). Because the benzene concentrations are above current Michigan generic residential cleanup, this CREC represents a REC.

The reported contamination in the area north of the maintenance building was identified as an HREC in connection with the Property (Sections 4.1 and 4.2.4). Approximately 480 cubic yards of impacted soil was excavated from this area, and results from analyses of soil and groundwater samples collected to evaluate the cleanup demonstrated that no residual contamination was present at concentrations above applicable residential cleanup criteria. As reported, this cleanup was conducted to Michigan generic residential use standards in accordance with Michigan's environmental voluntary cleanup program statute; therefore, the reported contamination in this area is an HREC in connection with the Property.

The following *Business Environmental Risks* were identified at the Property.

- The potential for releases of Freon 22 from the former ice rink refrigeration system – Freon 22 is not listed as a CERCLA hazardous substance or a Michigan regulated compound; however, there are regulations regarding the removal of Freon from systems prior to their dismantling/demolition. The refrigeration system should be verified to be free of Freon before it is removed/demolished.
- The potential for environmental impact from releases of coolant from pipes from the refrigeration building to the ice rink. Glycol or brine solutions were typically used as coolants in ice rink systems. We were unable to determine how the ice rink was constructed or what type of coolant may have been used in the system, and we have no evidence of a release from the system. However, it is possible that coolant could have been released from the ice rink piping system, and impacted soil may be encountered during construction activities in this area.
- The potential for unreported and/or undetected releases of heating oil from former heating oil USTs or ASTs potentially associated with the former residential and church structures along Seven Mile Road and Berg Road. We reviewed readily available and reasonably ascertainable records in an attempt to identify the historical fuel source(s) for the former structures along the northern Property boundary and along Berg Road and did not find records indicating the use of heating oil. However, based on our knowledge of the area and the documented use of heating oil in golf course buildings, heating oil was likely used in the former residential and church structures. Although we have no documented evidence of the presence of heating oil tanks or releases therefrom, soil impacted with heating oil may be encountered during construction activities in these areas.

8.2 CONCLUSIONS

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Standard Practice E 1527-13 of Rogell Golf Course at 18600-18601 Berg Road, in Detroit, Wayne County, Michigan. Any exceptions to, or deletions from, this practice are described in Section 2.4 of this report. In the EP's opinion, this assessment has revealed no evidence of recognized environmental conditions in connection with the Property except for the following.

This assessment has revealed no evidence of recognized environmental conditions in connection with the Property except for the following:

- The presence of soil impacted with 1,2,4-TMB and 1,3,5-TMB at concentrations above Michigan generic residential cleanup criteria in the area of former UST #4 near the maintenance building (Sections 4.1, 4.2.2, and 4.2.4).
- The presence of soil impacted with arsenic, lead, mercury, dieldrin, and/or beta-hexachlorocyclohexane at concentrations above Michigan generic residential cleanup criteria in the tee box, fairway and green areas of the former golf course (Section 4.2.4).

- The presence of soil impacted with concentrations of arsenic, cadmium, mercury, selenium, and/or zinc above Michigan generic residential cleanup criteria near the locations of abandoned drums, the irrigation well pump house, the soil mound, and near the existing above-ground storage tanks along the southern wall of the maintenance building; and groundwater impacted with concentrations of arsenic and lead above Michigan generic residential cleanup criteria in the area of above-ground storage tanks formerly located along the northern wall of the maintenance building (Section 4.2.4).
- The potential for unreported and/or undetected releases of hazardous substances and/or petroleum products from former UST #3 (Sections 4.1 and 4.2.2)
- The potential for unreported and/or undetected releases of hazardous substances associated with historical golf course operations on the Property (Section 4.4.2).
- The potential for unreported and/or undetected releases of petroleum products from the diesel and gasoline ASTs located south of the maintenance building, fuel oil ASTs located in or near the maintenance building, fuel oil AST located in the basement of the club house, fuel oil AST located in the refrigeration house, and reported historical flammable liquids storage at the Property (Sections 4.2.2, 5.3.2, and 5.4.2).
- The potential for unreported and/or undetected releases of hazardous substances from the transformers located northwest of the maintenance building (Section 5.3.3).
- The potential for unreported and/or undetected releases of hazardous substances and/or petroleum products from the drums and buckets present on the ground around the maintenance building (Section 5.3.5).
- The potential for environmental impact associated with materials present in the soil mound located northeast of the maintenance building (Section 5.3.6).
- The potential for releases of lubricants/oils used in the refrigeration system in the refrigeration house to migrate to the subsurface (Section 5.4.7).
- The potential for migration of unreported and/or undetected releases associated with the north-adjointing Seven Mile and Consolidated Unit #2268 sites onto the Property (Section 4.1).
- The potential for migration of unreported and/or undetected releases of hazardous substances and/or petroleum products onto the Property from the historical auto repair and dry cleaning operations on adjoining and nearby sites located up-gradient (generally north and northeast of the Property (Section 4.4.3).
- The potential for migration of impacted groundwater and/or soil gas (vapor encroachment) from the northeast-adjointing Former Shell Station onto the Property (Section 4.1).

This assessment also identified the presence of groundwater impacted with benzene at concentrations above Part 201 criteria in the area of former UST #1 near the maintenance building as a CREC in connection with the Property (Sections 4.1 and 4.2.2).

The following *Business Environmental Risks* were identified at the Property:

- The potential for unauthorized releases of Freon from the former ice rink refrigeration system during removal/demolition.

- The potential for encountering soil contaminated by unreported and/or undetected releases of coolant from pipes associated with the ice rink during construction activities in the area.
- The potential for encountering soil contaminated by unreported and/or undetected releases of heating oil near the former structures along Seven Mile Road and Berg Road during construction activities in the area.

8.3 DATA GAPS AND LIMITING CONDITIONS

We identified no significant data gaps in connection with this Phase I ESA. Dense vegetation present on portions of the Property limited our ability to observe the ground surface. In addition, we were unable to access the interiors of the maintenance building, irrigation pump house, refrigeration house, and the southern-most basement in the clubhouse. These limitations impaired our ability to identify additional RECs in connection with the Property.

8.4 STATEMENT AND SIGNATURE OF ENVIRONMENTAL PROFESSIONAL

The Environmental Professional responsible for the conduct of this Phase I ESA was Ms. Sara I. Bals, EIT. Her resume is attached in Appendix F.

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

Sara I. Bals, EIT
Senior Project Engineer

9. DEVIATIONS

No deviations occurred as part of this Phase I ESA.

10. NON-SCOPE SERVICES

No non-scope services were provided in conjunction with this Phase I ESA.

11. REFERENCES

ASTM International, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, November 1, 2013.

ONLINE SOURCES

- Jewish Historical Society of Michigan website, (<https://www.michjewishhistory.org/gallery/2017/05/franklin-hills-country-club.html>).
- Michigan Golfer Magazine May/June 2004 issue (<http://www.michigangolfer.com/may04/may0504-4.pdf>).
- Golfblogger.com article: *New Rogell Golf Course Review and Requiem*, May 13, 2013.
- CBS Detroit news article: *Sale of Historic Rogell Golf Course in Legal Limbo*, September 19, 2014.

OWNER PROVIDED DOCUMENTATION

- McDowell & Associates, *Response Activity Documentation*, Two Remedial Areas East of Club House and North of the Maintenance Building, Existing Golf Course, January 11, 2008.

MDEQ-RRD PROVIDED DOCUMENTATION

- NTH Consultants, LTD., *Leaking UST Closure Report*, Rogell Golf Course, June 24, 1999.
- Fluor Daniel GTI, Inc., *Monitoring Well Abandonment Summary Letter*, Former United Station #2268, December 1, 1997.
- Progressive Environmental Consulting & Engineering, Inc. *Baseline Environmental Assessment*, 21640 West Seven Mile Road, Detroit, MI, October 9, 1996.
- AECOM, *Site Update*, Former Shell-Owned Station, July 24, 2017.
- SME, *Baseline Environmental Assessment*, 21630 West Seven Mile Road, Detroit, MI, November 24, 1997.
- Innovative Environmental Solutions, Inc., *Baseline Environmental Assessment*, Former Bowlerama, July 28, 1998.
- MEK Environmental Consultants, *Closure Report and Closure Report Addendums*, 7 Mile & Telegraph Mini Mart Inc., 1999 and 2000.

DLARA-STD PROVIDED DOCUMENTATION

- MS Consulting Engineers, *Notice of Proposed Installation of UST*, Recreation Rogell Golf Course, June 25, 1997.
- DLARA UST Registration and Compliance Inspection Records, 1999 - 2007
- McDowell & Associates, *UST System Site Assessment Report and Closure or Change in Service Registration*, Rogell Golf Course, December 11, 2007.

CITY OF DETROIT PROVIDED DOCUMENTATION

- Wayne County Register of Deeds, Quit Claim Deed, June 27, 2007.
- Fire Marshal Inspections, Golf Course Property, 1954-1955 and 1979 through 1998.
- McDowell & Associates, *Phase II Environmental Site Assessment*, Approximate 120-Acre Parcel Existing Rogell Golf Course, May 21, 2007.

DRAFT

12. GENERAL COMMENTS

SME's project team conducted this Phase I ESA to identify RECs in connection with the Property and to assess the relative significance of the identified RECs. The findings, opinions, conclusions, and recommendations presented in this report are based upon observations noted during the site visit, and information obtained during the performance of the scope of services on the dates indicated. In the process of obtaining the field and historical information in preparation of this report, procedures were followed that represent reasonable and accepted environmental practices and principles, in a manner consistent with that level of care and skill ordinarily exercised by members of these professions currently practicing under similar conditions. Records reviewed at various locations as identified within the text of this report, include only those records that were provided to SME by the referenced department on the date indicated. As such, the records provided to SME may not represent all records available at a given source. Appropriate Inquiries was made into the past uses of the Property consistent with good commercial or customary practice. As is typical with Phase I ESAs, SME conducted no testing or subsurface evaluation for this assessment.

Due to unknown or latent conditions on the Property, or on adjacent or nearby properties, which may become evident in the future, SME does not represent the Property is free of contamination or hazardous waste material. It should also be noted the Property conditions may change over time. Should additional surface, subsurface, chemical, or other data become available after the date of issue of this report, the findings, conclusions and recommendations contained in this report may have to be modified. SME should be retained to review the new information and adjust our opinion and recommendations accordingly.

All reports, field data, field notes, laboratory test data, calculations, estimates and other documents prepared by SME as instruments of service are the property of SME. No parties other than those specifically identified in this report may rely upon SME's opinions, conclusions or reports unless SME has agreed to such reliance in writing. In any event, any reliance will be subject to the terms and conditions set forth in the contractual agreement under which this work was performed.

FIGURES

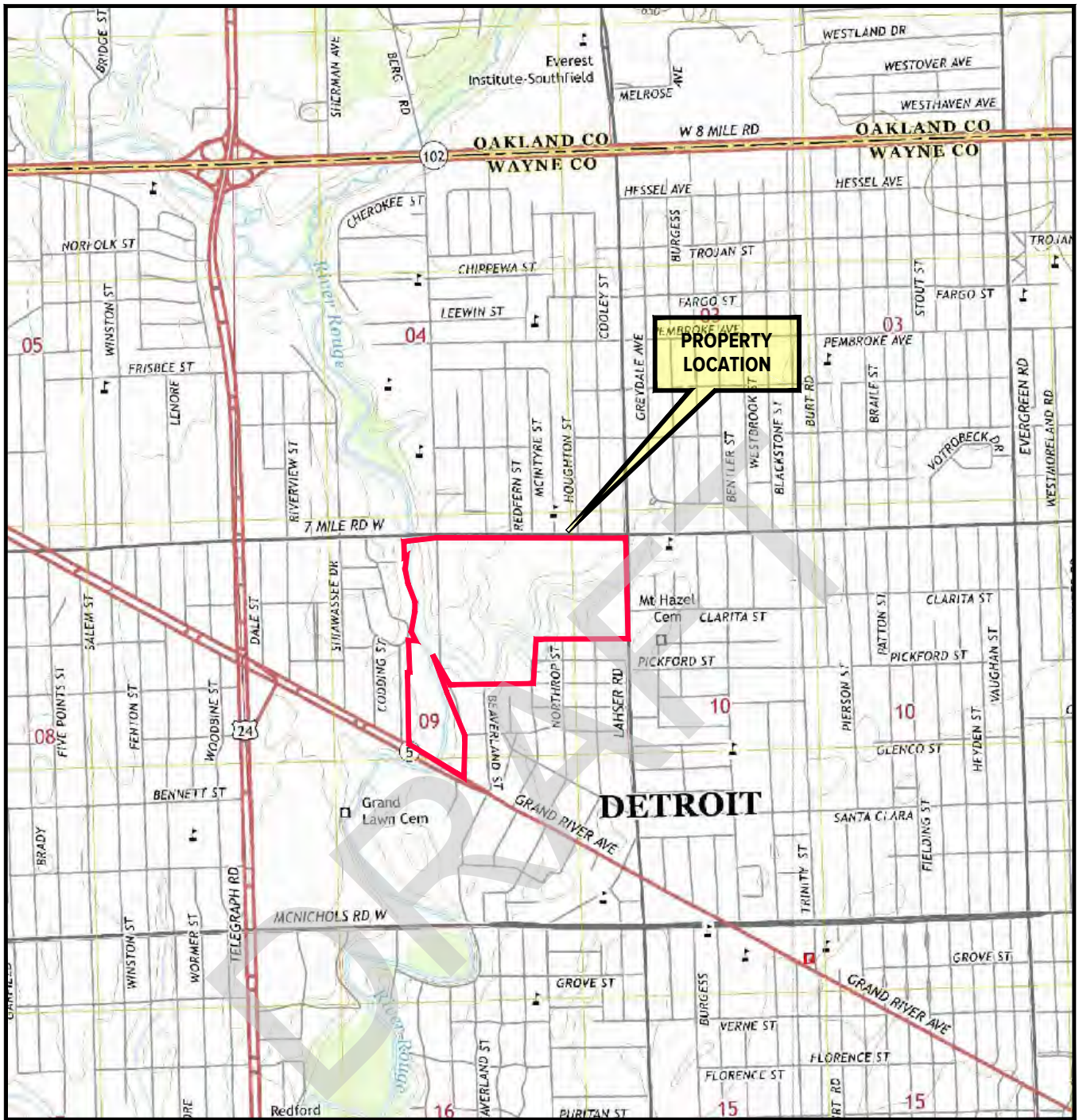
FIGURE 1: PROPERTY LOCATION MAP

FIGURE 2: PROPERTY FEATURES DIAGRAM

FIGURE 3: MAINTENANCE BUILDING INSET MAP

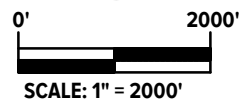
FIGURE 4: CLUB HOUSE INSET MAP

DRAFT



Base map obtained from EDR.

USGS QUADRANGLE(S) REFERENCED
 REDFORD (MI) TOPO QUAD - 2014
 ROYAL OAK (MI) TOPO QUAD - 2014



No.	Revision Date	Date	12-19-17
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		Designed By	AK
		Scale	1" = 2000'
		Project	077832.00.001.003

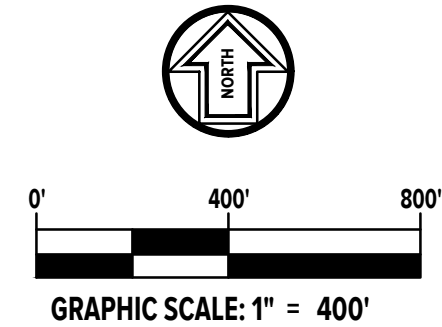
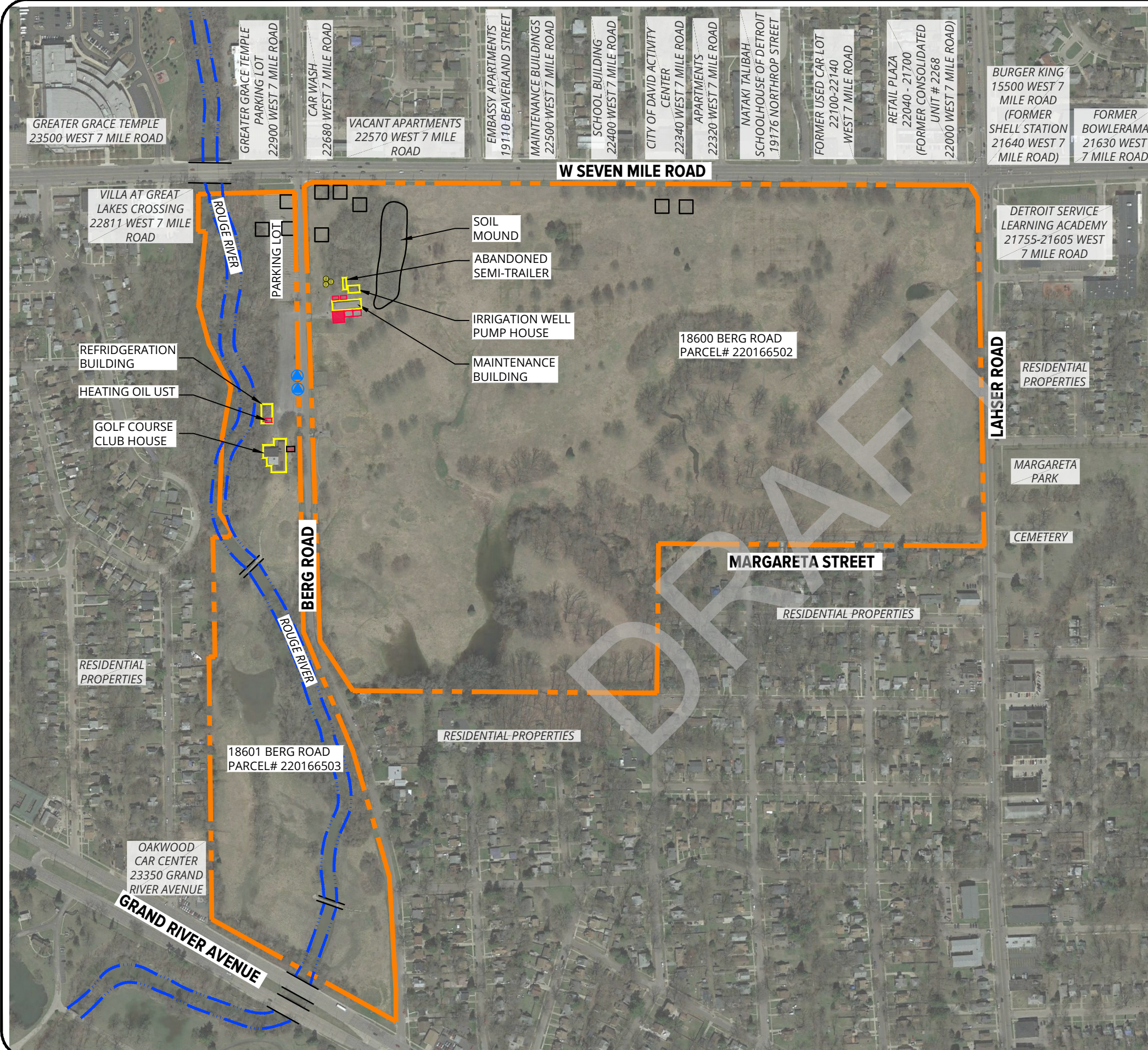
**PROPERTY LOCATION MAP
 FORMER ROGELL GOLF COURSE
 18600 - 18601 BERG ROAD
 DETROIT, MICHIGAN**



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Figure No. 1

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LEGEND

- - - APPROXIMATE PROPERTY BOUNDARY
- MONITORING WELL
- POLE-MOUNTED TRANSFORMERS
- FORMER LOCATION OF BUILDINGS
- FORMER LOCATION OF GASOLINE UST
- GASOLINE AND DIESEL ASTS
- FORMER LOCATION OF DIESEL ASTS
- FORMER LOCATION OF HEATING OIL UST

NOTE:
DRAWING INFORMATION TAKEN FROM
GOOGLE EARTH PRO 2016 AERIAL PHOTO
AND SITE OBSERVATIONS.



Project
**FORMER ROGELL
GOLF COURSE**

Project Location
**18600 - 18601
BERG ROAD
DETROIT,
MICHIGAN**

Sheet Name
**PROPERTY
FEATURES
DIAGRAM**

No.	Revision Date

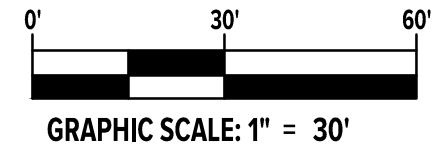
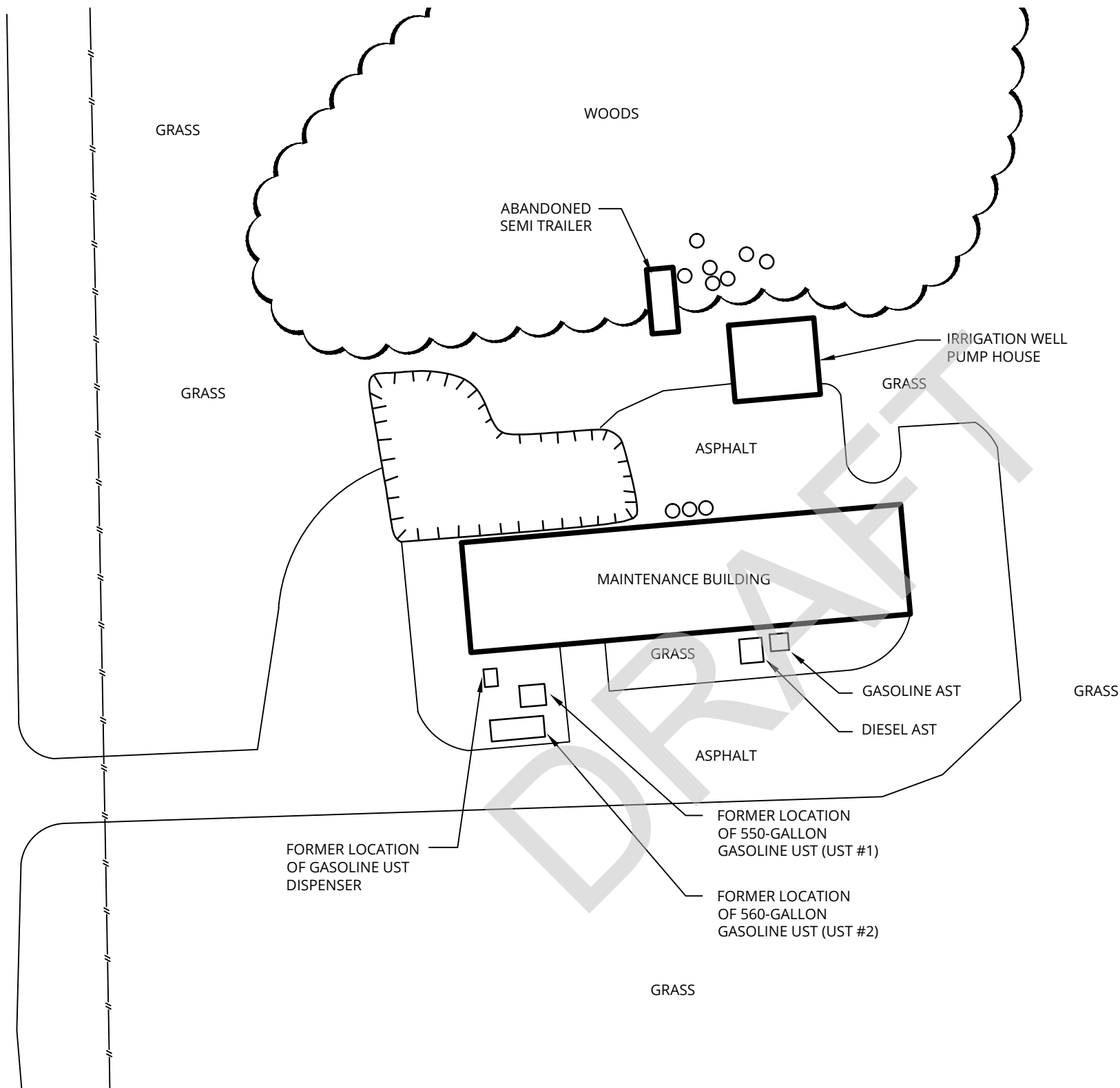
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CADD **GM**
Designer **AK**
Scale **1" = 400'**
Project **077832.00.001.003**

Figure No.
2

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 PLOT DATE:

BERG ROAD



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Project

FORMER ROGELL GOLF COURSE

Project Location

**18600 - 18601 BERG ROAD
 DETROIT,
 MICHIGAN**

Sheet Name

**MAINTENANCE BUILDING
 INSET MAP**

No.	Revision Date

Date **01-30-18**

CADD **GM**

Designer **AK**

Scale **1" = 30'**

Project **077832.00.001.003**

Figure No. **3**

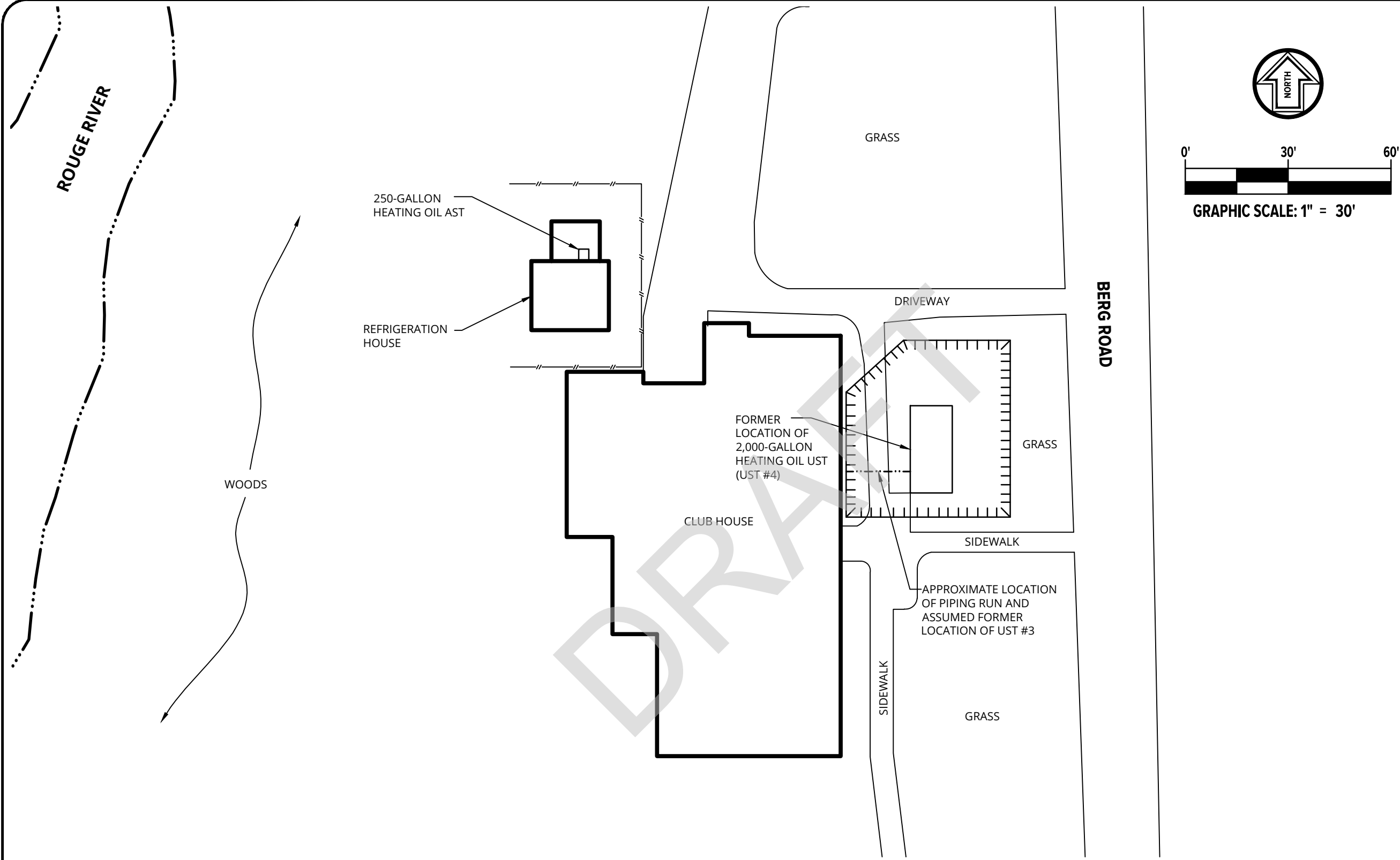
LEGEND

- APPROXIMATE 2007 EXCAVATION BOUNDARY
- FENCE
- ABANDONED DRUMS

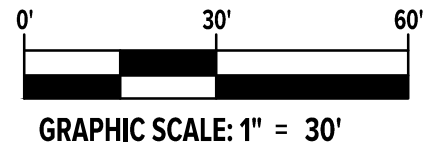
NOTE:
 DRAWING INFORMATION OBTAINED FROM GOOGLE EARTH APRIL 2017, SITE RECONNAISSANCE OBSERVATIONS, NTH CONSULTANTS LUST CLOSURE REPORT DATED 6-24-99, AND McDOUGALL & ASSOCIATES RESPONSE ACTIVITY DOCUMENTATION DATED 1-11-2008.

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DRAWING INFORMATION OBTAINED FROM GOOGLE EARTH APRIL 2017, SITE RECONNAISSANCE OBSERVATIONS, NTH CONSULTANTS LUST CLOSURE REPORT DATED 6-24-99, AND McDOUGALL & ASSOCIATES RESPONSE ACTIVITY DOCUMENTATION DATED 1-11-2008, AND DETROIT FIRE MARSHALL DOCUMENTATION DATED 10-27-1981.



LEGEND

- APPROXIMATE 2007 EXCAVATION BOUNDARY
- FENCE



Project
FORMER ROGELL GOLF COURSE

Project Location
18600 - 18601 BERG ROAD DETROIT, MICHIGAN

Sheet Name
CLUB HOUSE INSET MAP

No.	Revision Date

Date **01-30-18**

CADD **GM**

Designer **AK**

Scale **1" = 30'**

Project **077832.00.001.003**

Figure No.
4

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APPENDIX A
PHOTOGRAPHS

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PHOTO NO. 1: View of the ticket booth and the eastern boundary of the eastern parcel.



PHOTO NO. 2: View of the maintenance building located on the northwestern portion of the eastern parcel.

SME Project No.:	077832.00.001.003
Photographs by:	Anita H. Ketola, CHMM
Date:	December 4, 2017
Project:	Former Rogell Golf Course
Location:	18600-18601 Berg Road, Detroit, Michigan



PHOTO NO. 3: View of a diesel and unleaded gasoline ASTs located south of the maintenance building.



PHOTO NO. 4: View of abandoned drums with no labels and tires observed north of the maintenance building.

SME Project No.:	077832.00.001.003
Photographs by:	Anita H. Ketola, CHMM
Date:	December 4, 2017
Project:	Former Rogell Golf Course
Location:	18600-18601 Berg Road, Detroit, Michigan



PHOTO NO. 5: View of irrigation well pump house located north of the maintenance building.



PHOTO NO. 6: View of the interior of the irrigation well pump house.

SME Project No.:	077832.00.001.003
Photographs by:	Anita H. Ketola, CHMM
Date:	December 4, 2017
Project:	Former Rogell Golf Course
Location:	18600-18601 Berg Road, Detroit, Michigan



PHOTO NO. 7: View of an abandoned semi-trailer containing tires and debris located north of the maintenance building.



PHOTO NO. 8: View of a partially buried drum with no label beneath the semi-trailer.

SME Project No.:	077832.00.001.003
Photographs by:	Anita H. Ketola, CHMM
Date:	December 4, 2017
Project:	Former Rogell Golf Course
Location:	18600-18601 Berg Road, Detroit, Michigan



PHOTO NO. 9: View of an abandoned drum and tire observed north of the irrigation well pump house.



PHOTO NO. 10: View of additional abandoned unlabeled drums observed east of the irrigation well pump house.

SME Project No.:	077832.00.001.003
Photographs by:	Anita H. Ketola, CHMM
Date:	December 4, 2017
Project:	Former Rogell Golf Course
Location:	18600-18601 Berg Road, Detroit, Michigan



PHOTO NO. 11: View of soil mound observed northeast of the irrigation well pump house.



PHOTO NO. 12: View of soil mound, abandoned drum, and plastic debris observed northeast of the irrigation well pump house.

SME Project No.:	077832.00.001.003
Photographs by:	Anita H. Ketola, CHMM
Date:	December 4, 2017
Project:	Former Rogell Golf Course
Location:	18600-18601 Berg Road, Detroit, Michigan



PHOTO NO. 13: View of three pole-mounted transformers located northwest of the irrigation well pump house.



PHOTO NO. 14: View of the eastern boundary of the eastern parcel.

SME Project No.:	077832.00.001.003
Photographs by:	Anita H. Ketola, CHMM
Date:	December 4, 2017
Project:	Former Rogell Golf Course
Location:	18600-18601 Berg Road, Detroit, Michigan



PHOTO NO. 15: View of the central portion of the eastern parcel.



PHOTO NO. 16: View of the northern boundary of the eastern parcel.

SME Project No.:	077832.00.001.003
Photographs by:	Anita H. Ketola, CHMM
Date:	December 4, 2017
Project:	Former Rogell Golf Course
Location:	18600-18601 Berg Road, Detroit, Michigan



PHOTO NO. 17: View of a pond observed on the eastern portion of the eastern parcel.



PHOTO NO. 18: View of the southeastern portion of the eastern parcel.

SME Project No.:	077832.00.001.003
Photographs by:	Anita H. Ketola, CHMM
Date:	December 4, 2017
Project:	Former Rogell Golf Course
Location:	18600-18601 Berg Road, Detroit, Michigan



PHOTO NO. 19: View of the south-central portion of the eastern parcel.



PHOTO NO. 20: View of the drain outflow located on the southern portion of the eastern parcel.

SME Project No.:	077832.00.001.003
Photographs by:	Anita H. Ketola, CHMM
Date:	December 4, 2017
Project:	Former Rogell Golf Course
Location:	18600-18601 Berg Road, Detroit, Michigan



PHOTO NO. 21: View of the southwestern portion of the eastern parcel.



PHOTO NO. 22: View of the parking lot located on the western parcel.

SME Project No.:	077832.00.001.003
Photographs by:	Anita H. Ketola, CHMM
Date:	December 4, 2017
Project:	Former Rogell Golf Course
Location:	18600-18601 Berg Road, Detroit, Michigan



PHOTO NO. 23: View of two monitoring wells observed in the southern portion of the parking lot on the western parcel.



PHOTO NO. 24: View of the former golf club house located on the western parcel.

SME Project No.:	077832.00.001.003
Photographs by:	Anita H. Ketola, CHMM
Date:	December 4, 2017
Project:	Former Rogell Golf Course
Location:	18600-18601 Berg Road, Detroit, Michigan



PHOTO NO. 25: View of the former refrigeration building within a fenced-in area northwest of the clubhouse.



PHOTO NO. 26: View of fireworks debris observed north of the clubhouse.

SME Project No.:	077832.00.001.003
Photographs by:	Anita H. Ketola, CHMM
Date:	December 4, 2017
Project:	Former Rogell Golf Course
Location:	18600-18601 Berg Road, Detroit, Michigan



PHOTO NO. 27: View of the central portion of the western parcel.



PHOTO NO. 28: View of the log jam observed at the bridge over the Rouge River, south of the clubhouse.

SME Project No.:	077832.00.001.003
Photographs by:	Anita H. Ketola, CHMM
Date:	December 4, 2017
Project:	Former Rogell Golf Course
Location:	18600-18601 Berg Road, Detroit, Michigan



PHOTO NO. 29: View of the southern portion of the western parcel.



PHOTO NO. 30: View from the southern bridge on the southern portion of the western parcel.

SME Project No.:	077832.00.001.003
Photographs by:	Anita H. Ketola, CHMM
Date:	December 4, 2017
Project:	Former Rogell Golf Course
Location:	18600-18601 Berg Road, Detroit, Michigan



PHOTO NO. 31: View of the approximate historical location of the 2,000-gallon heating oil UST (in grass area).



PHOTO NO. 32: View of the former refrigeration house, looking east.

SME Project No.:	077832.00.001.003
Photographs by:	Anita H. Ketola, CHMM
Date:	December 4, 2017
Project:	Former Rogell Golf Course
Location:	18600-18601 Berg Road, Detroit, Michigan



PHOTO NO. 33: View of the refrigeration system in the refrigeration house.



PHOTO NO. 34: View of the sign identifying Freon 22 as refrigerant in the refrigeration system.

SME Project No.:	077832.00.001.003
Photographs by:	Anita H. Ketola, CHMM
Date:	December 4, 2017
Project:	Former Rogell Golf Course
Location:	18600-18601 Berg Road, Detroit, Michigan



PHOTO NO. 35: View of the northern portion of the refrigeration house, with roof collapse and debris.



PHOTO NO. 36: View of the abandoned heating oil AST observed in the northern portion of the refrigeration house.

SME Project No.:	077832.00.001.003
Photographs by:	Anita H. Ketola, CHMM
Date:	December 4, 2017
Project:	Former Rogell Golf Course
Location:	18600-18601 Berg Road, Detroit, Michigan



PHOTO NO. 37: View of the lobby of the golf course clubhouse.



PHOTO NO. 38: View of the southern banquet room in the clubhouse.

SME Project No.:	077832.00.001.003
Photographs by:	Anita H. Ketola, CHMM
Date:	December 4, 2017
Project:	Former Rogell Golf Course
Location:	18600-18601 Berg Road, Detroit, Michigan



PHOTO NO. 39: View of the northern basement of the clubhouse.



PHOTO NO. 40: View of one-gallon ammonia containers observed in a northern room in the clubhouse.

SME Project No.:	077832.00.001.003
Photographs by:	Anita H. Ketola, CHMM
Date:	December 4, 2017
Project:	Former Rogell Golf Course
Location:	18600-18601 Berg Road, Detroit, Michigan



PHOTO NO. 41: View of two five-gallon buckets of paint observed stored in a former walk-in freezer in the clubhouse.

SME Project No.:	077832.00.001.003
Photographs by:	Anita H. Ketola, CHMM
Date:	December 4, 2017
Project:	Former Rogell Golf Course
Location:	18600-18601 Berg Road, Detroit, Michigan

APPENDIX B
HISTORICAL RESEARCH DOCUMENTATION

DRAFT

General Property Information

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Parcel: 22016650-2 **Unit:** CITY OF DETROIT

****Note: 2017 values are currently tentative****

Property Address [collapse]

18600 BERG RD
 , 48219

Owner Information [collapse]

GREATER GRACE TEMPLE OF THE APOSTOL
 23500 W 7 MILE RD
 DETROIT, MI 48219

Unit: 01

Taxpayer Information [collapse]

SEE OWNER INFORMATION

General Information for Tax Year 2017 [collapse]

Property Class:	201 - 201-COMMERCIAL	Assessed Value:	\$0
School District:	D - DETROIT PUBLIC SCHOOLS	Taxable Value:	\$0
State Equalized Value:	\$0	Map #	22
DISTRICT	8	Date of Last Name Chg:	07/13/2016
		Date Filed:	
		Notes:	N/A
Historical District:	N/A	Census Block Group:	N/A

Principal Residence Exemption	June 1st	Final
		-
2017	0.0000 %	0.0000 %

Previous Year Info	MBOR Assessed	Final S.E.V.	Final Taxable
2016	\$914,200	\$0	\$0
2015	\$914,200	\$914,200	\$914,200

Land Information [collapse]

	Frontage	Depth
Lot 1:	0.00 Ft.	0.00 Ft.
Lot 2:	0.00 Ft.	0.00 Ft.
Lot 3:	0.00 Ft.	0.00 Ft.
Total Frontage:	0.00 Ft.	Average Depth: 0.00 Ft.

Total Acreage:	93.62
Zoning Code:	R1
Total Estimated Land Value:	\$478,000
Land Improvements:	\$0
Renaissance Zone:	NO
Renaissance Zone Expiration Date:	

Mortgage Code:	
Lot Dimensions/Comments:	N/A

Legal Information for 22016650-2 [collapse]

S SEVEN MILE W ALL THAT PT OF N E 1/4 OF SEC 9 T 1 S R 10 E DESC AS FOLS--BEG AT A PTE IN E LINE OF BERG RD 66 FT WD BG ALSO IN S LINE OF SEVEN MILE RD AS WD TH S 89D 23M 30S E 2510.96 FT ALG SD S LINE TH S 0D 45M 50S E 1305.10 FT ALG W LINE LAHSER AVE TH N 89D 27M 40S W 1243.66 FT TH S 1D 08M 30S E 565.05 FT TH S 89D 30M 54S W 1163.75 FT TH N 21D 32M 30S W 253.22 FT ALG E LINE BERG RD TH N 1D 21M 10S W 1659.66 FT ALONG SAID LINE TO PTE OF BEG 22/--- 91.422 ACRES

Sales Information**1 sale record(s) found.**

Sale Date	Sale Price	Instrument	Grantor	Grantee	Terms Of Sale	Liber/Page
06/22/2007	\$2,100,000.00	PTA	CITY OF DETROIT-RECREATION DEPT 146	GREATER GRACE TEMPLE OF THE APOSTOL	VALID ARMS LENGTH	

Building Information**2 building(s) found.**

Description	Floor Area	Yr Built
Commercial/Industrial Building 1 - <i>Garage, Service Station, w/Bays</i>	2700 Sq. Ft.	0

General Information

Floor Area:	2700 Sq. Ft.	Estimated TCV:	N/A
Occupancy:	Garage, Service Station, w/Bays	Class:	C
Stories Above Ground:	1	Average Story Height:	15
Basement Wall Height:	N/A	Year Remodeled:	0
Year Built:	0	Heat:	No Heating or Cooling
Percent Complete:	100%	Functional Percent Good:	100%
Physical Percent Good:	98%	Effective Age:	1 yrs.
Economic Percent Good:	100%		

Commercial/Industrial Building 2 - <i>Shed, Utility, 4 Wall</i>	0 Sq. Ft.	0
---	-----------	---

General Information

Floor Area:	0 Sq. Ft.	Estimated TCV:	N/A
Occupancy:	Shed, Utility, 4 Wall	Class:	C
Stories Above Ground:	1	Average Story Height:	8
Basement Wall Height:	N/A	Year Remodeled:	0
Year Built:	0	Heat:	No Heating or Cooling
Percent Complete:	100%	Functional Percent Good:	100%
Physical Percent Good:	98%	Effective Age:	1 yrs.
Economic Percent Good:	100%		

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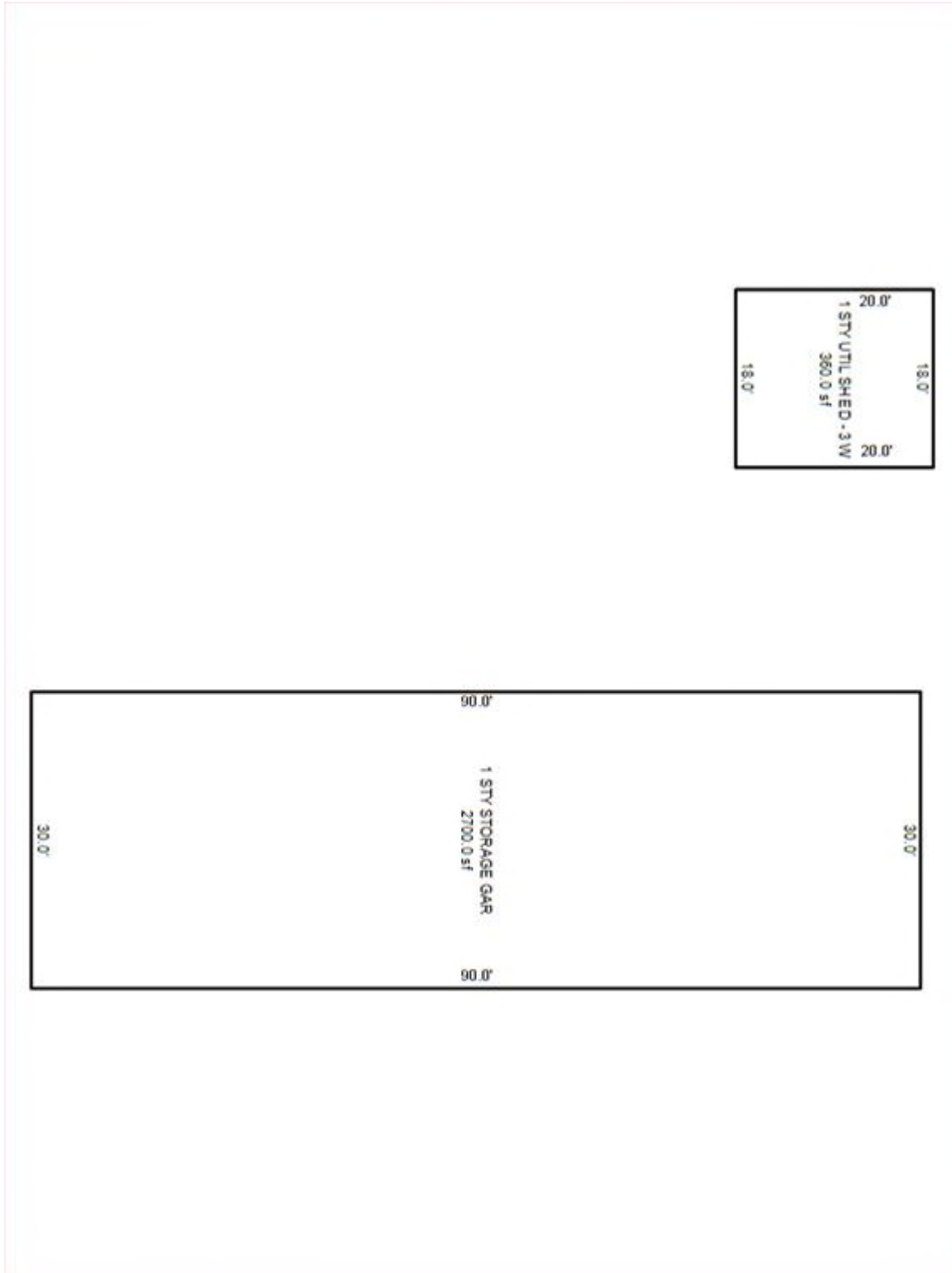
[Privacy Policy](#)

Image/Sketch for Parcel: 22016650-2

City of Detroit

[\[Back to Non-Printer Friendly Version\]](#) [\[Send To Printer\]](#)

Caption: No caption found



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General Property Information

[\[Back to Non-Printer Friendly Version\]](#) [\[Send To Printer\]](#)

Parcel: 22016653. **Unit:** CITY OF DETROIT

****Note: 2017 values are currently tentative****

Property Address [collapse]

18601 BERG RD
 , 48219

Owner Information [collapse]

GREATER GRACE TEMPLE
 23500 W SEVEN MILE
 DETROIT, MI 48219

Unit: 01

Taxpayer Information [collapse]

SEE OWNER INFORMATION

General Information for Tax Year 2017 [collapse]

Property Class:	201 - 201-COMMERCIAL	Assessed Value:	\$0
School District:	D - DETROIT PUBLIC SCHOOLS	Taxable Value:	\$0
State Equalized Value:	\$0	Map #	22
DISTRICT	8	Date of Last Name Chg:	07/13/2016
		Date Filed:	
		Notes:	N/A
Historical District:	N/A	Census Block Group:	N/A

Principal Residence Exemption	June 1st	Final
		-
2017	0.0000 %	0.0000 %

Previous Year Info	MBOR Assessed	Final S.E.V.	Final Taxable
2016	\$294,500	\$0	\$0
2015	\$294,500	\$294,500	\$294,500

Land Information [collapse]

	Frontage	Depth
Lot 1:	0.00 Ft.	0.00 Ft.
Lot 2:	0.00 Ft.	0.00 Ft.
Lot 3:	0.00 Ft.	0.00 Ft.
Total Frontage:	0.00 Ft.	Average Depth: 0.00 Ft.

Total Acreage:	29.77
Zoning Code:	R1
Total Estimated Land Value:	\$587,000
Land Improvements:	\$0
Renaissance Zone:	NO
Renaissance Zone Expiration Date:	

Mortgage Code:	
Lot Dimensions/Comments:	N/A

Legal Information for 22016653. [collapse]

S SEVEN MILE W ALL THAT PT OF SEC 9 T 1 S R 10 E LYG W & ADJ BERG RD 66 FT WD E & ADJ PHILBRICK & CROSS SUB AND E & ADJ AND N & ADJ GLENBROOK SUB BTW W SEVEN MILE RD 120 FT WD & W GRAND RIVER AVE 204 FT WD EXC W 431.14 FT ON N LINE BG W 414.84 FT ON S LINE 178 GLENBROOK SUB L44 P6 PLATS, WCR 22/378 29.448 AC.

Sales Information**1 sale record(s) found.**

Sale Date	Sale Price	Instrument	Grantor	Grantee	Terms Of Sale	Liber/Page
06/22/2007	\$0.00	WD	CITY OF DETROIT-RECREATION DEPT 146	GREATER GRACE TEMPLE	NO CONSIDERATION	46429/1043

Building Information**0 building(s) found.**

Description	Floor Area	Yr Built
--------------------	-------------------	-----------------

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Rogell Property

18600 Berg Road

Detroit, MI 48219

Inquiry Number: 5102888.9

November 10, 2017

The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

11/10/17

Site Name:

Rogell Property
18600 Berg Road
Detroit, MI 48219
EDR Inquiry # 5102888.9

Client Name:

Soil & Materials Engineers Inc
4705 Clyde Park Avenue SW
Grand Rapids, MI 49509
Contact: Matt Vander Eide



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Search Results:

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2010	1"=500'	Flight Year: 2010	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
1999	1"=500'	Acquisition Date: March 28, 1999	USGS/DOQQ
1997	1"=500'	Flight Date: May 04, 1997	DTE
1987	1"=500'	Flight Date: June 14, 1987	USGS
1976	1"=500'	Flight Date: March 25, 1976	USDA
1972	1"=500'	Flight Date: July 01, 1972	USDA
1967	1"=500'	Flight Date: May 12, 1967	DTE
1957	1"=500'	Flight Date: May 16, 1957	DTE
1949	1"=500'	Flight Date: May 03, 1949	DTE
1940	1"=500'	Flight Date: August 01, 1940	USDA
1937	1"=500'	Flight Date: July 23, 1937	USDA

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INQUIRY # 5102888.9

YEAR: 2012

— = 500'





INQUIRY # 5102888.9

YEAR: 2010

— = 500'





INQUIRY # 5102888.9

YEAR: 2009

— = 500'





INQUIRY # 5102888.9

YEAR: 2005

— = 500'





INQUIRY # 5102888.9

YEAR: 1999

— = 500'





INQUIRY # 5102888.9

YEAR: 1997

— = 500'





INQUIRY # 5102888.9

YEAR: 1987

— = 500'





INQUIRY # 5102888.9

YEAR: 1976

— = 500'





INQUIRY # 5102888.9

YEAR: 1972

— = 500'





INQUIRY # 5102888.9

YEAR: 1967

— = 500'





INQUIRY # 5102888.9

YEAR: 1957

— = 500'





INQUIRY # 5102888.9

YEAR: 1949

— = 500'





INQUIRY # 5102888.9

YEAR: 1940

— = 500'





INQUIRY # 5102888.9

YEAR: 1937

— = 500'





Rogell Property
18600 Berg Road
Detroit, MI 48219

Inquiry Number: 5102888.3

November 09, 2017

Certified Sanborn® Map Report



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Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

11/09/17

Site Name:

Rogell Property
18600 Berg Road
Detroit, MI 48219
EDR Inquiry # 5102888.3

Client Name:

Soil & Materials Engineers Inc
4705 Clyde Park Avenue SW
Grand Rapids, MI 49509
Contact: Matt Vander Eide



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Certified Sanborn Results:

Certification # 97E2-484D-AE97
PO # 077832.00.001.003
Project Rogell Property

UNMAPPED PROPERTY

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Sanborn® Library search results

Certification #: 97E2-484D-AE97

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- ✓ Library of Congress
- ✓ University Publications of America
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Rogell Property
18600 Berg Road
Detroit, MI 48219

Inquiry Number: 5102888.4
November 09, 2017

EDR Historical Topo Map Report

with QuadMatch™



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

11/09/17

Site Name:

Rogell Property
18600 Berg Road
Detroit, MI 48219
EDR Inquiry # 5102888.4

Client Name:

Soil & Materials Engineers Inc
4705 Clyde Park Avenue SW
Grand Rapids, MI 49509
Contact: Matt Vander Eide



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Search Results:**Coordinates:**

P.O.#	077832.00.001.003	Latitude:	42.426789 42° 25' 36" North
Project:	Rogell Property	Longitude:	-83.263301 -83° 15' 48" West
		UTM Zone:	Zone 17 North
		UTM X Meters:	313812.09
		UTM Y Meters:	4699645.52
		Elevation:	629.28' above sea level

Maps Provided:

2014
1981, 1983
1973
1968
1952
1941, 1942
1936
1905

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2014 Source Sheets



Royal Oak
2014
7.5-minute, 24000



Redford
2014
7.5-minute, 24000

1981, 1983 Source Sheets



Royal Oak
1981
7.5-minute, 24000
Aerial Photo Revised 1981



Redford
1983
7.5-minute, 24000
Aerial Photo Revised 1982

1973 Source Sheets



Royal Oak
1973
7.5-minute, 24000
Aerial Photo Revised 1973



Redford
1973
7.5-minute, 24000
Aerial Photo Revised 1973

1968 Source Sheets



Royal Oak
1968
7.5-minute, 24000
Aerial Photo Revised 1967



Redford
1968
7.5-minute, 24000
Aerial Photo Revised 1967

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1952 Source Sheets



Royal Oak
1952
7.5-minute, 24000

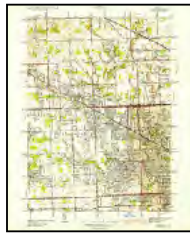


Redford
1952
7.5-minute, 24000

1941, 1942 Source Sheets



Royal Oak
1941
7.5-minute, 24000



Redford
1942
7.5-minute, 24000

1936 Source Sheets

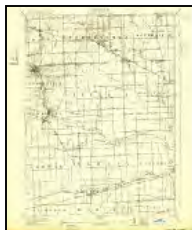


Royal Oak
1936
7.5-minute, 31680



Redford
1936
7.5-minute, 31680

1905 Source Sheets



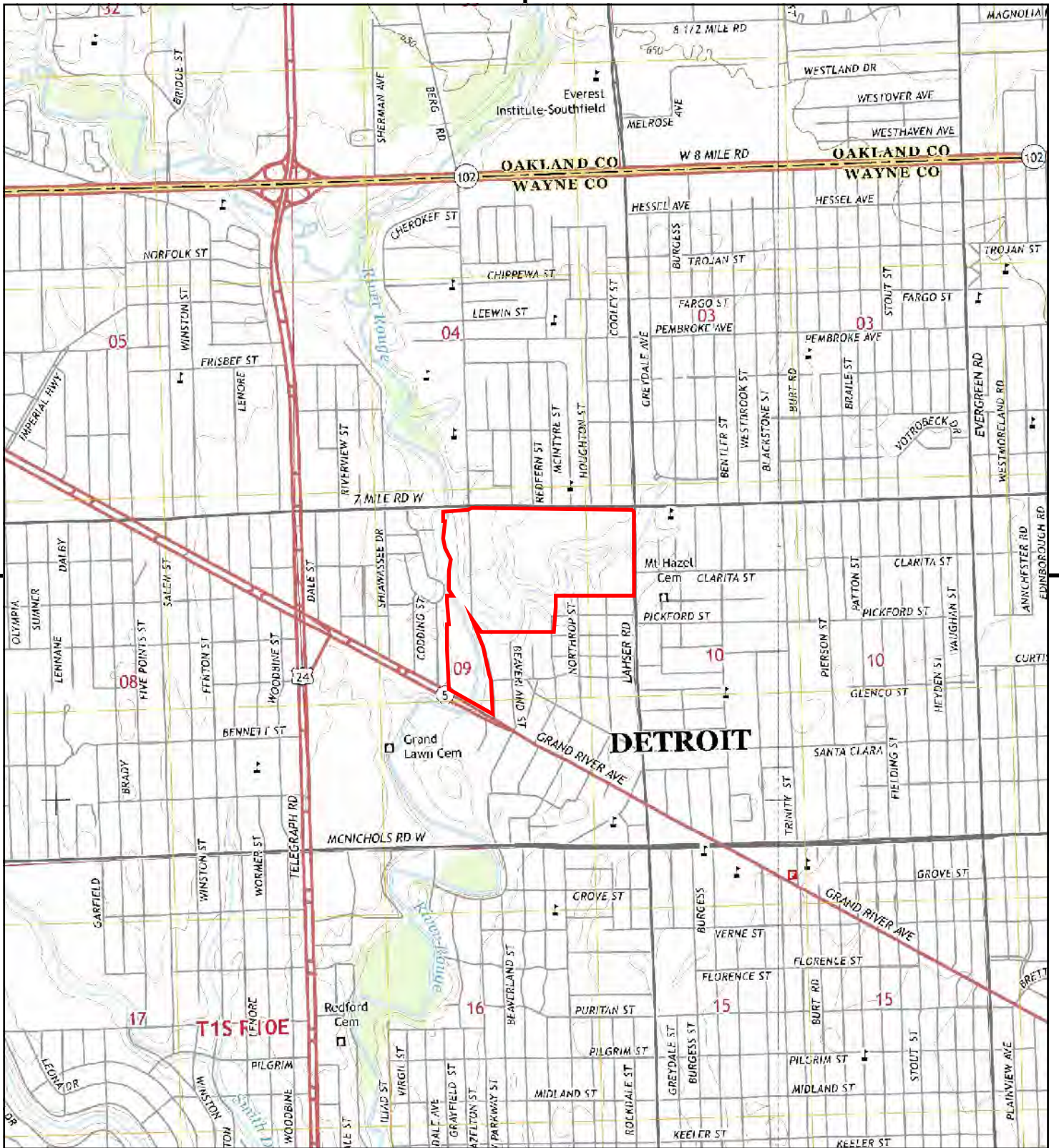
Wayne
1905
15-minute, 62500



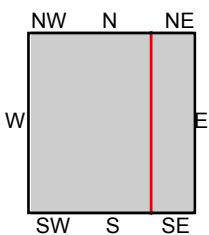
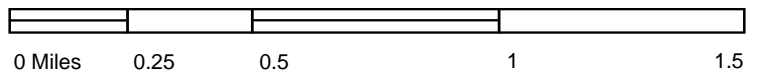
Detroit
1905
15-minute, 62500



Plymouth
1905
15-minute, 62500



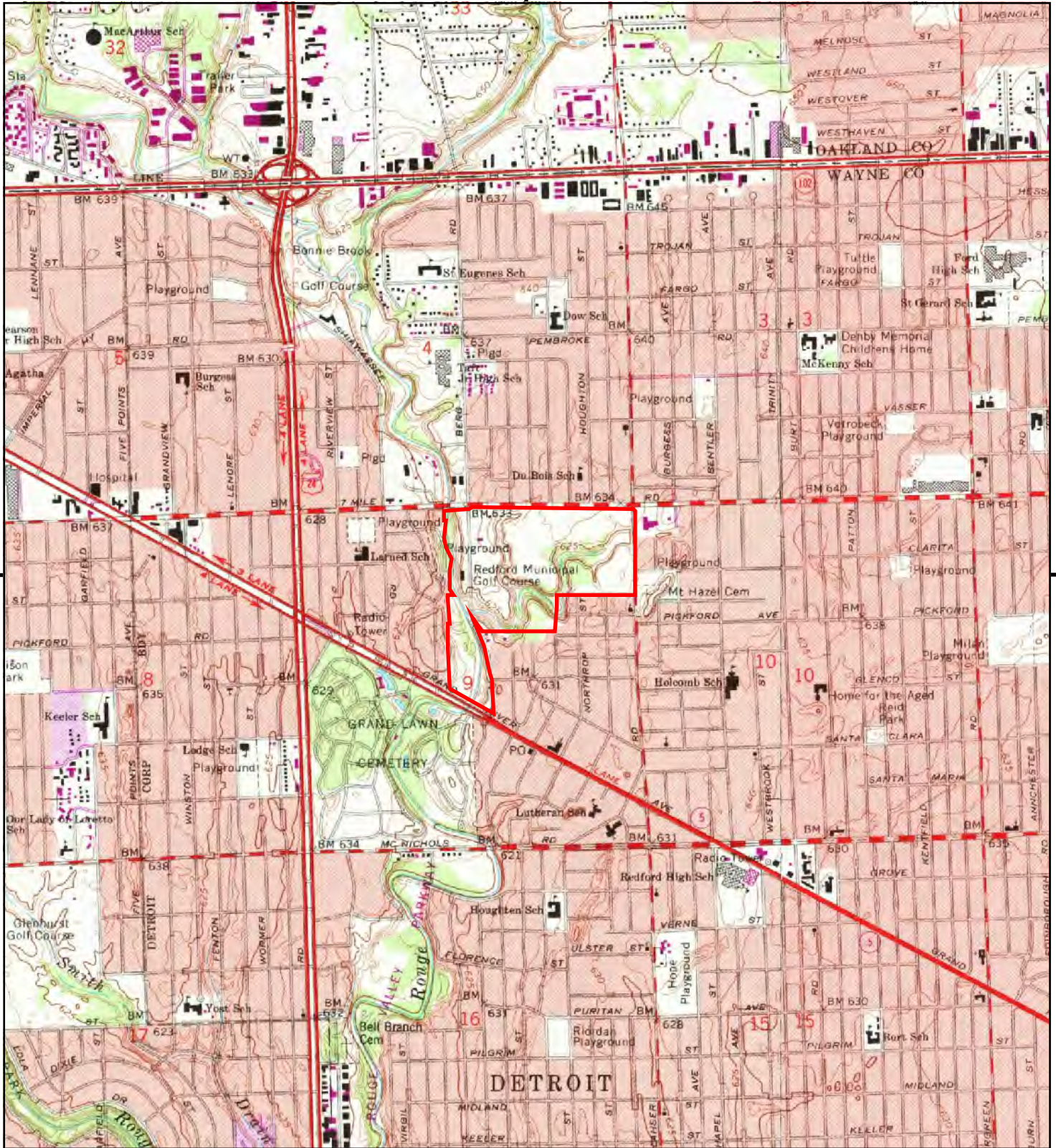
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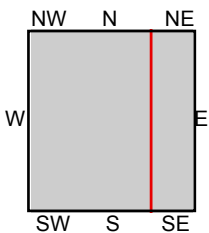
TP, Redford, 2014, 7.5-minute
E, Royal Oak, 2014, 7.5-minute

SITE NAME: Rogell Property
ADDRESS: 18600 Berg Road
Detroit, MI 48219
CLIENT: Soil & Materials Engineers Inc





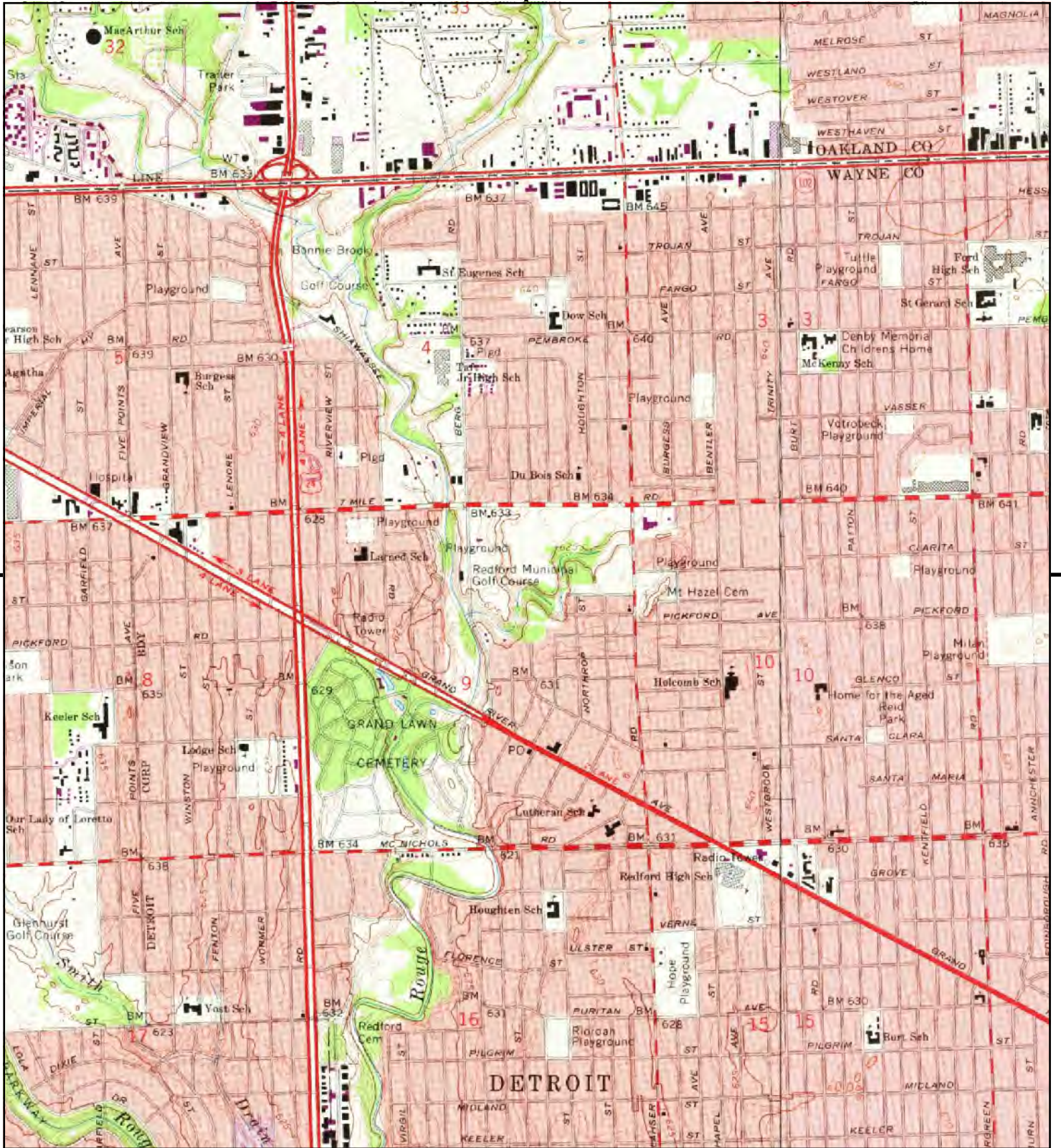
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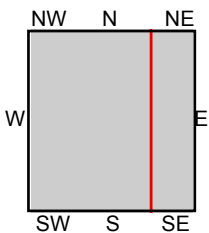
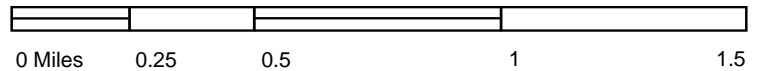
TP, Redford, 1983, 7.5-minute
E, Royal Oak, 1981, 7.5-minute

SITE NAME: Rogell Property
ADDRESS: 18600 Berg Road
Detroit, MI 48219
CLIENT: Soil & Materials Engineers Inc





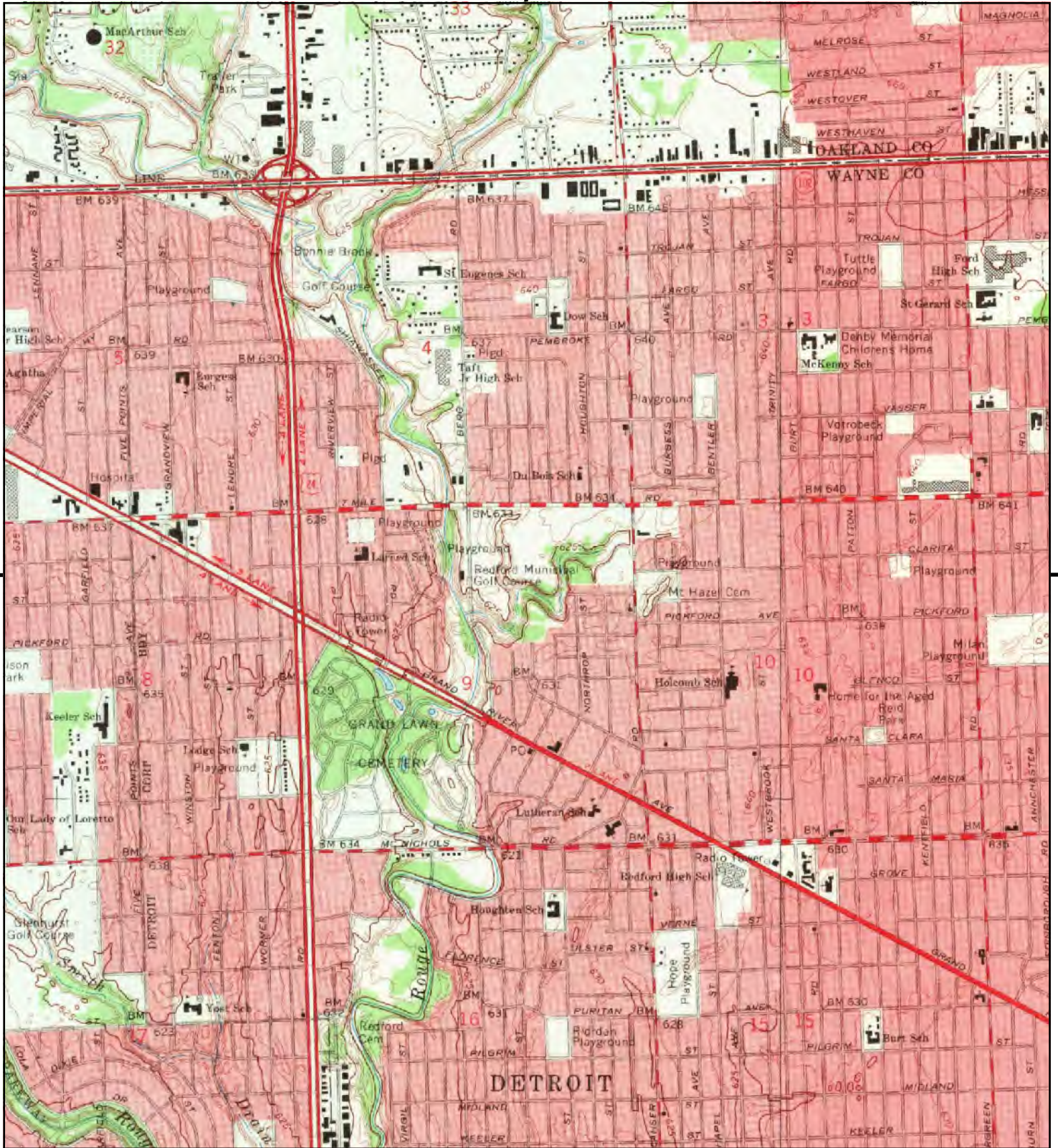
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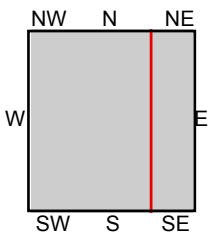
TP, Redford, 1973, 7.5-minute
E, Royal Oak, 1973, 7.5-minute

SITE NAME: Rogell Property
ADDRESS: 18600 Berg Road
Detroit, MI 48219
CLIENT: Soil & Materials Engineers Inc





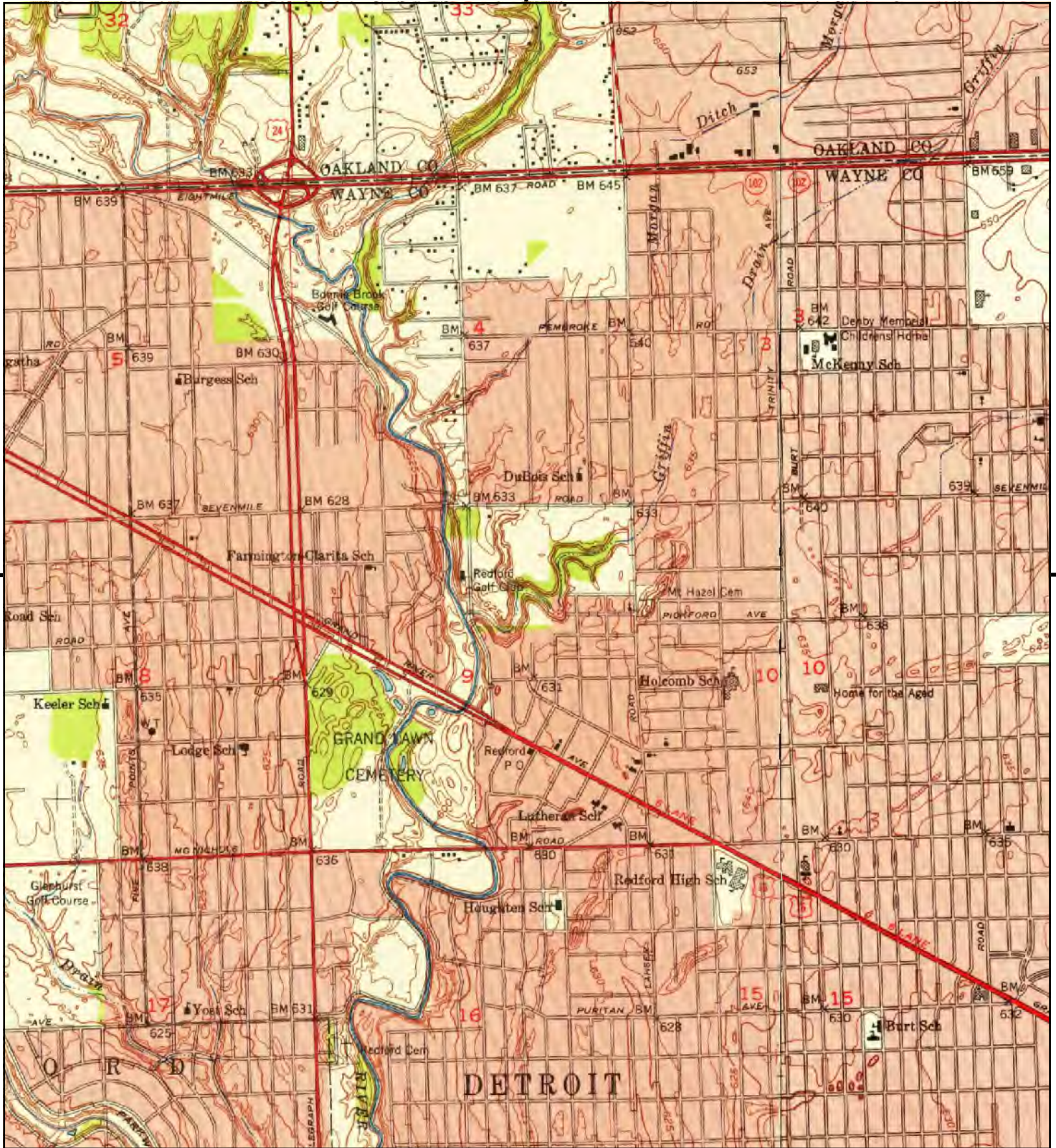
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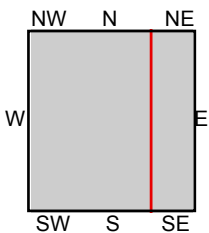
TP, Redford, 1968, 7.5-minute
E, Royal Oak, 1968, 7.5-minute

SITE NAME: Rogell Property
ADDRESS: 18600 Berg Road
Detroit, MI 48219
CLIENT: Soil & Materials Engineers Inc





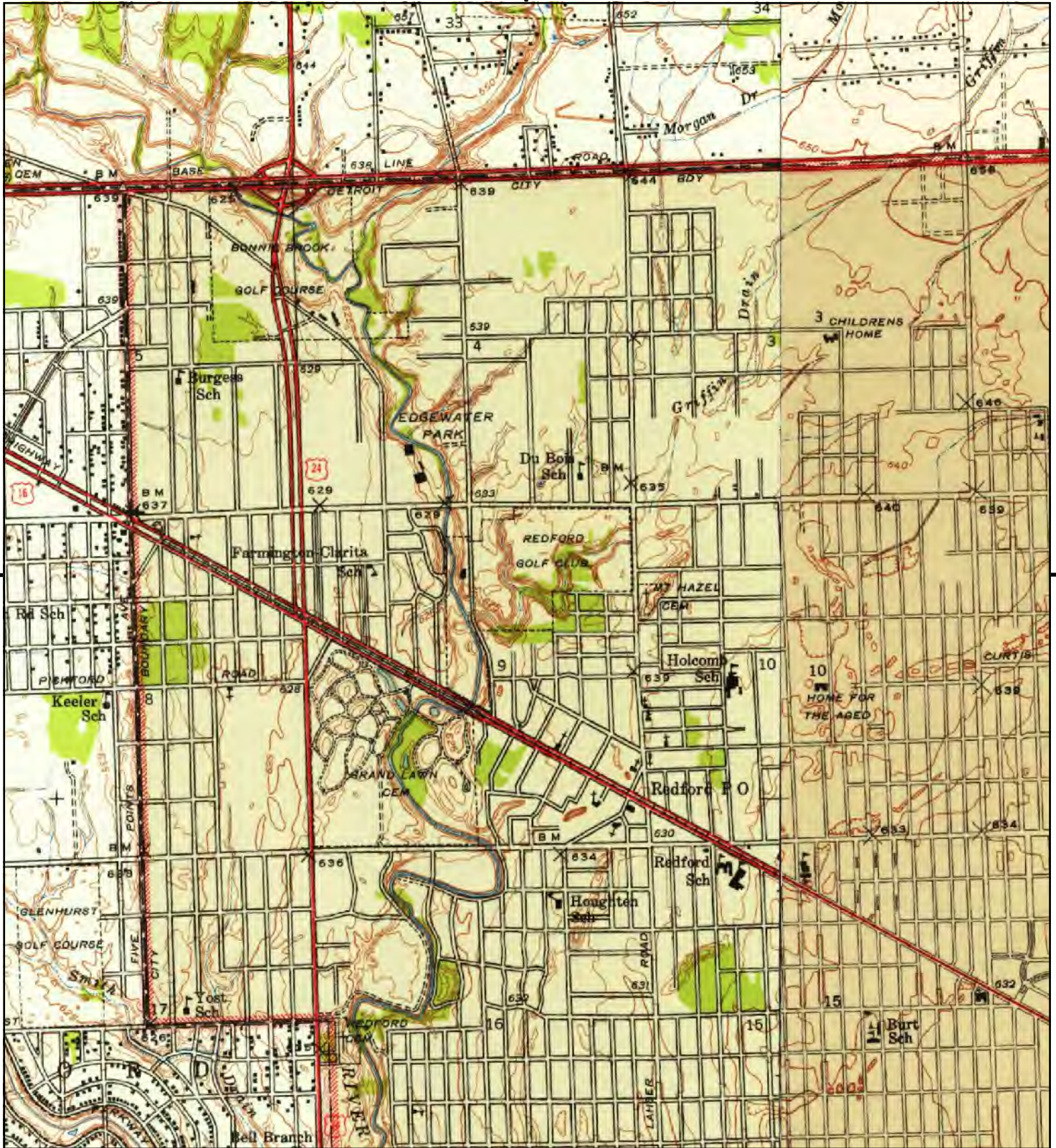
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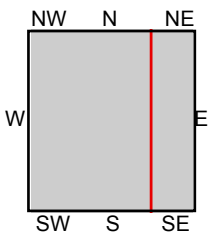
TP, Redford, 1952, 7.5-minute
E, Royal Oak, 1952, 7.5-minute

SITE NAME: Rogell Property
ADDRESS: 18600 Berg Road
Detroit, MI 48219
CLIENT: Soil & Materials Engineers Inc





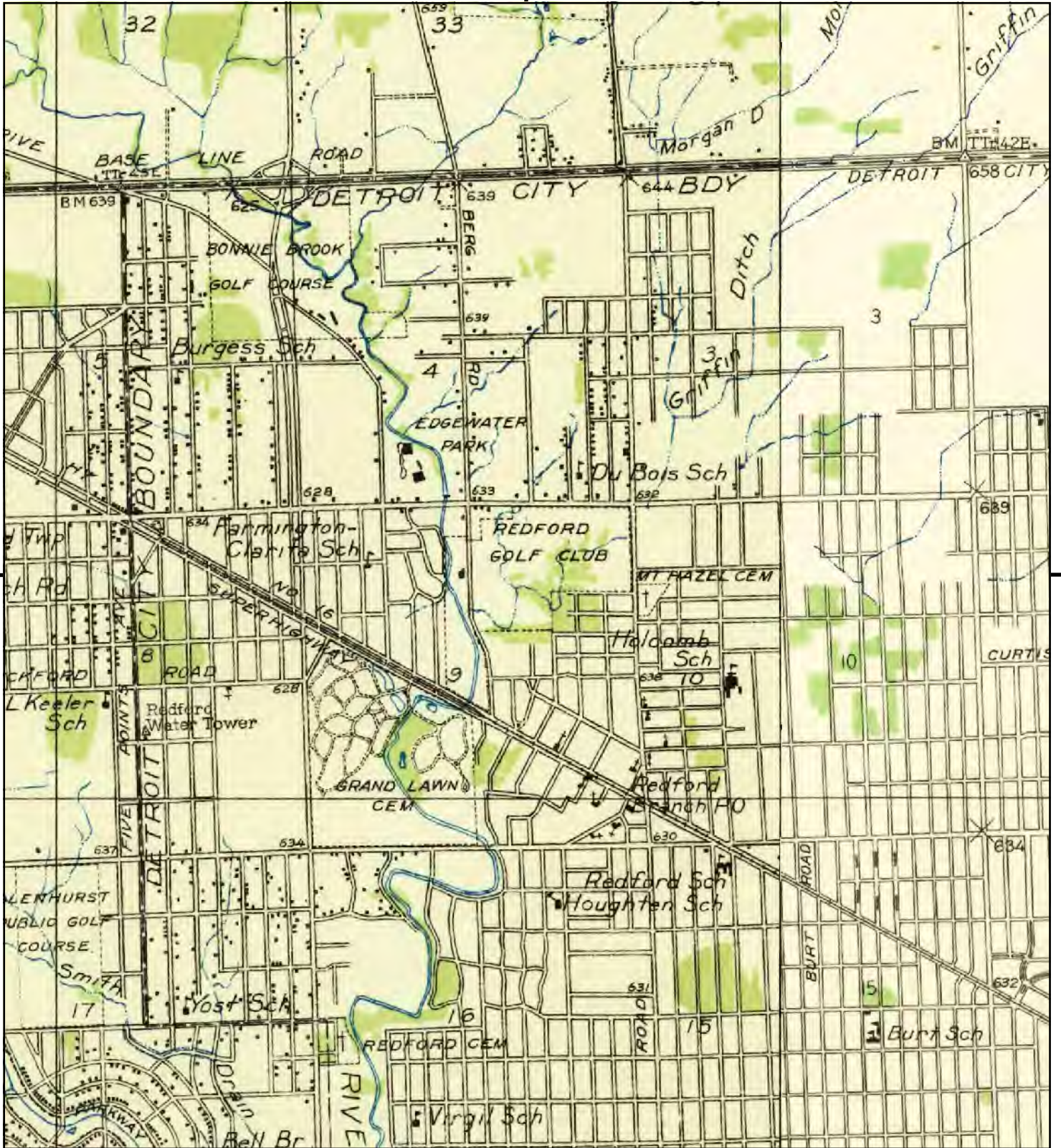
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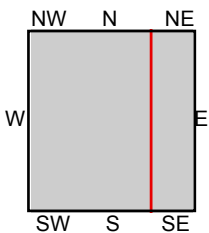
TP, Redford, 1942, 7.5-minute
E, Royal Oak, 1941, 7.5-minute

SITE NAME: Rogell Property
ADDRESS: 18600 Berg Road
Detroit, MI 48219
CLIENT: Soil & Materials Engineers Inc





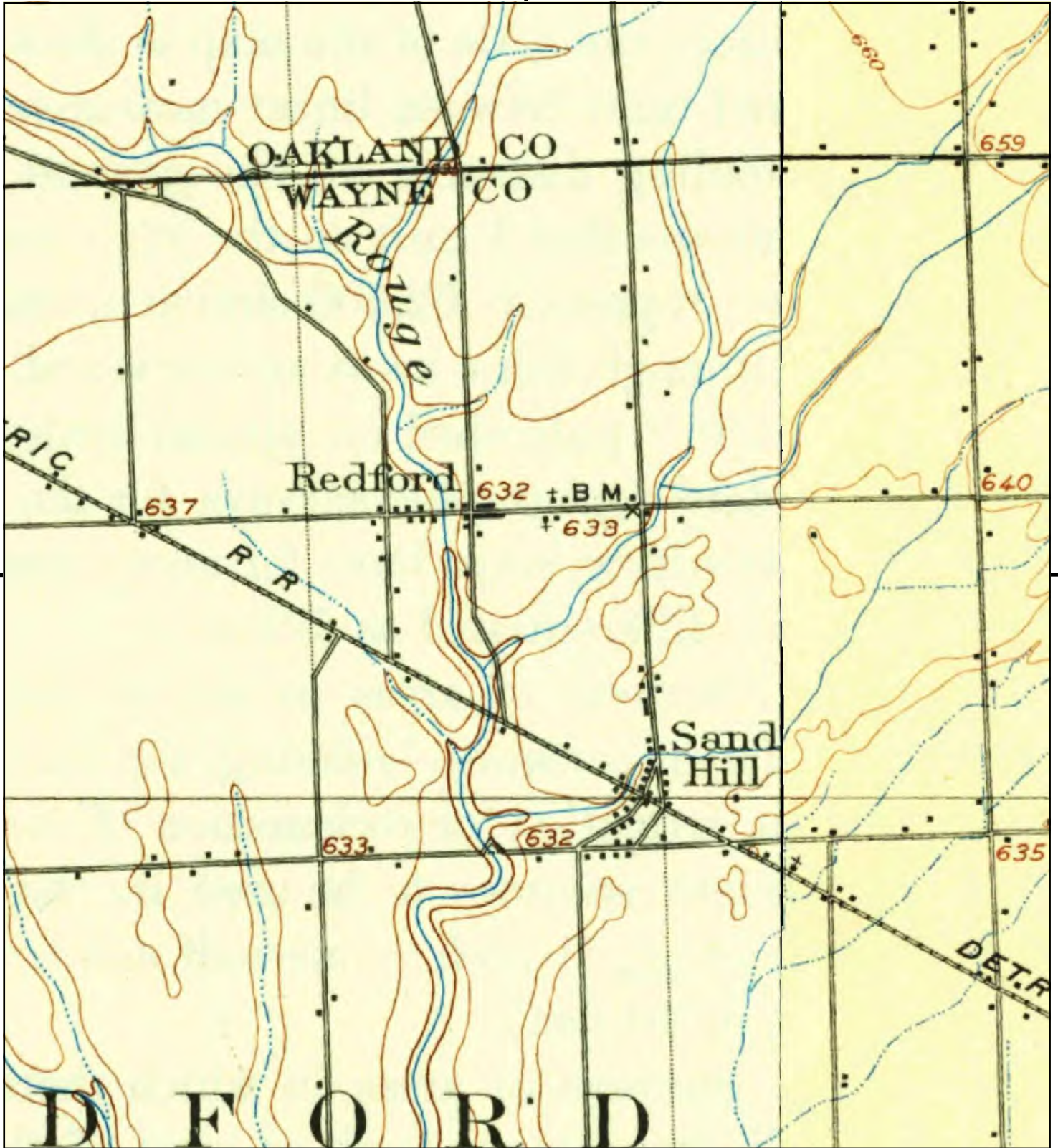
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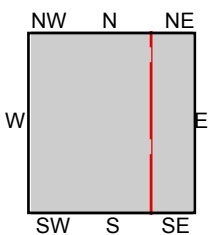
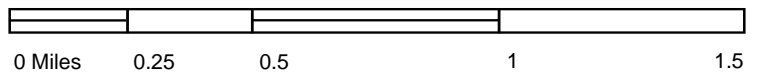
TP, Redford, 1936, 7.5-minute
E, Royal Oak, 1936, 7.5-minute

SITE NAME: Rogell Property
ADDRESS: 18600 Berg Road
Detroit, MI 48219
CLIENT: Soil & Materials Engineers Inc





This report includes information from the following map sheet(s).



TP, Wayne, 1905, 15-minute
 SE, Detroit, 1905, 15-minute
 TP, Plymouth, 1905, 15-minute

SITE NAME: Rogell Property
 ADDRESS: 18600 Berg Road
 Detroit, MI 48219
 CLIENT: Soil & Materials Engineers Inc



Rogell Property

18600 Berg Road
Detroit, MI 48219

Inquiry Number: 5102888.5
November 14, 2017

The EDR-City Directory Image Report

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

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with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

<u>Year</u>	<u>Target Street</u>	<u>Cross Street</u>	<u>Source</u>
2014	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EDR Digital Archive
2010	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EDR Digital Archive
2005	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EDR Digital Archive
2000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EDR Digital Archive
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1970	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Polk's City Directory
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1940	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Polk's City Directory
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1926	<input type="checkbox"/>	<input type="checkbox"/>	Polk's City Directory
1921	<input type="checkbox"/>	<input type="checkbox"/>	Polk's City Directory

EXECUTIVE SUMMARY

Year Target Street Cross Street Source

FINDINGS

TARGET PROPERTY STREET

18600 Berg Road
Detroit, MI 48219

<u>Year</u>	<u>CD Image</u>	<u>Source</u>
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BERG RD

2014	pg A1	EDR Digital Archive	
2010	pg A2	EDR Digital Archive	
2005	pg A3	EDR Digital Archive	
2000	pg A4	EDR Digital Archive	
1995	pg A5	EDR Digital Archive	
1992	pg A6	EDR Digital Archive	
1987	pg A7	Bresser's Cross-Index Directory Company	
1982	pg A8	Bresser's Cross-Index Directory Company	
1982	pg A9	Bresser's Cross-Index Directory Company	
1977	pg A10	Bresser's Cross-Index Directory Company	
1977	pg A11	Bresser's Cross-Index Directory Company	
1973	pg A12	Bresser's Cross-Index Directory Company	
1973	pg A13	Bresser's Cross-Index Directory Company	
1970	pg A14	Polk's City Directory	
1965	pg A15	Polk's City Directory	
1956	pg A16	Polk's City Directory	
1940	pg A17	Polk's City Directory	
1935	pg A18	Polk's City Directory	
1931	pg A19	Polk's City Directory	
1926	-	Polk's City Directory	Street not listed in Source
1921	-	Polk's City Directory	Street not listed in Source

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images



-

BERG RD 2014

18318 CHAMBERLAIN, MARGARET A
GASTON PROPERTIES LLC
18420 TATUM, JOHN E
18601 DETROIT MICHIGAN CITY OF
19130 DULANEY, EUGENE



-

BERG RD 2010

18318 GASTON PROPERTIES LLC
GASTON, BILLIE J
18420 TATUM, JOHN E
18601 DETROIT CITY OF
19142 WOODY, KEVIN T



-

BERG RD 2005

18420 TATUM, JOHN E
18601 DETROIT CITY OF
19130 SOUTHALL, STEPHANIE G
19142 WOODY, KEVIN T



-

BERG RD 2000

18318 WAGNER, MICHAEL
18420 TATUM, JOHN E
19143 CLARK, BRANT
DUKES, FRAN A
DUNGEN, RAYMOND
ECHOLS, TRACY
GOGGINS, JAMES E
HOSEAY, JOANN
SMALL, L



-

BERG RD 1995

18318 WAGNER, MICHAEL
18601 DETROIT CITY OF
19130 OCCUPANT UNKNOWNN
19143 BROOKS, STEVEN
DUNGEN, RAYMOND JR
ESSEX HOUSE APARTMENTS
JACKSON, PHYLLIS
MURRAY, L
POLIDOR, OZIE
VINI PROPERTY TRUST
WHITE, BASIL
WOODS, BARBARA J



-

BERG RD 1992

18318 MOORE, JOHN V
18601 DETROIT CITY OF
DON & RONS PRO SHOP
19142 DAYSTAR ENTERPRISES
RICHARD-ALLAN MEDICAL INDS
19143 DUNGEN, RAYMOND JR
ESSEX HOUSE APARTMENTS
WHITE, BASIL

BERG RD 1987

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	17836 LAWSON ELLIOTT	2553544
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	17878 JEFF DICKERSON	5385986
	17888 N L DEBELISO	1 5356907
	17898	NP
	17910 REV K KOHLMANN	-5384568
	18214	NP
	18224 PAUL B MACMILLAN	2556386
	18244 F A MARCHETTI JR	5310032
	18250 J LYSHAK	5317771
	J MORTIER	2*5317771
	18266	NP
	18280 J VIRGILIO	5332881
	18298 ANTHONY J ROSZAK	*5311327
	18318 JOHN V MOORE	*5354468
	18420	NP
	18601*CTY REDFORD WM	9355331
	*REDFORD GOLF CRSE	5312015
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	RAYMOND DUNGEN JR	5 5359779
	JOSEPHINE MARTIN	9 5348825
	SAMUEL PALMORE	5 5379428
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	C PRICE	5 5327742
	INGRID SMITH	5311378
	CHARLES WOODS	52552826
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	JEFFERY EDWARDS	5340744
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	19430 19440 19450	NP
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	PETER ROBAK	5920343
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	19498	NP
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	19830 DORIS A MCELROY	5346332
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	19989 M RENE WILSON	5 5380369
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	20131*ST EUGENES RECTRY	5353130
	20134 RUSH LOCKHART JR	3*5334143
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	20306 20316 20326	NP
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BERG RD 1982

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17868	REV HAROLD L HECHT	7 5347626
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18244	F A MARCHETTI JR	5310032
18250	F E HARRINGTON	5317771
	J LYSHAK	6 5317771
	R J MCDONALD	6 5317771
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18280	J VIRGILIO	4 5332881
18298	ANTHONY J ROSZAK	.5311327
18318	JOHN V MOORE	.5354468

BERG RD 1982

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	*REDFORD GOLF COURS	9355331	
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	MAX BERENBAUM		5380207
	BEN GOREVITZ	8	5382607
	LEONARD E HAMPTON	6	5317044
	HUGH A JONES		5385994
	MOHAMED M MABROUK	3	5389166
	JOSEPHINE MARTIN	9	5348825
	GORDON RIDDELL		5325754
	RICHARD TWIGGS		-5370039
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	MRS FRED STEVENS		5347328
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	WILLIAM F REGULA	0	5352113
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19300	ANNIE JOHNSON	8	5310828
19400	G VARTANIAN		.5317147
19410	TONI WOLF		#5377372
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19440	JOSEPH CONSTANTINE		.5357040
19450	GEORGE DOHRING	2	5921786
	ROBERT J SZMYTKE	0	5347658
19458	THOMAS F VALLEY		.5373091
19466	I A ROBAK	3	.5323196
	PETER ROBAK	6	5920343
19474	L JACKSON	6	5388436
19482	GAIL BOLDEN	0	2555984
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19501	*TAFT JR HIGH SCHL		5311062
19506		NP	
19514	EUGENE SPENCE	8	2555333
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19540	CHARLES DAVIS	8	5318789
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19560	19574	NP	
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19830	DORIS A MCELROY	4	5346332
19842	19850 19911	NP	
19955		NP	
19979	J L HUGHES		#5928618
19989		NP	
20010	HENRY FRIEDMAN		.5387125
20015		NP	
20024	THOMAS E JARVIS		#5311556
	WALTER F JARVIS		.5311556
20025		NP	
20041	ERWIN KARSCHNICK		.5313041
20131	*ST EUGENE DAY TRAN		5343056
	*ST EUGENES RECOTRY		5353130
	*ST EUGENES EDUC		2552170
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20224	A FOURNE		.5330679
20236	HERSCHEL SOLOMON	0	5349448
20246	GEORGE BOOT JR		5334614
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20284	I KU		#5320905
20306	20316	NP	
20326	CRAIG S ALBOSTA	9	5373155
20336		NP	
20348	SIDNEY WINKLER		5375886
20358		NP	
20366	LEROY DIXON JR	9	5384103
20380	MICHL SANTELLO SR		.5311615
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20445	GEORGE VARKAS		.5386858
20453	O JORIS		.2556349
20471	20485	NP	
20495	WILLIAM J LAMBOURN		
		9	5331976
20505	ROBERT LITWIN		#5356455
20603	SHARON KIND	7	.5332957
20613	FRANK M BUELOW		.5342869
20623		NP	
	108 RESIDENCE	15	BUSINESS

BERG RD 1977

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...	19100-20699 T	45602	\$A..A 2
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	DAVID KELTCN		▣5310789
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17836	LAWSCN ELLICTT	4	2553544
17848			NP
17858	JOHN N VITTA		•KE21377
17868	*REV HAROLD L HECHT		•5347626
17878			NP
17888	RICHARD A PALONUSA	4	2552070
	B M WICKERT	4	2552070
17898			NP
17910	M D SHARAI JR		-5384568
18214			NP
18224	PAUL E MACMILLAN	1	2556386
18244	F A MARCHETTI JR	9	5310032
18250	F E HARRINGTON	8	5317771
	J LYSHAK		▣5317771
	R J MCCCNALD		-5317771
18266	J SECCRC	2	5348208
18280	J VIRGILIO	4	5332881
18298	ANTHCNY J ROSZAK		•5311327
18318	JOHN V MCORE	7	•5354468
18420			NP
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	*REDFORD GOLF CRSE		5372150
	*REDFCRD RECRTN CTR		▣5372150
	*REDFCRD GOLF PRO		5324330
19122			NP

BERG RD 1977

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19142	DANIEL M HERMES	5	5324632
19143	*ESSEX HOUSE APTS		5372317
	*MRS BERNSTEIN MGR		5372317
	CHARLES E BAILEY	2	5383718
	ELAINE BERENBAUM		5380207
	MAX BERENBAUM		5380207
	*ESSEX HOUSE APTS		5372317
	BEN GOREVITZ		5382607
	HUGH A JONES	0	5385994
	MOHAMED M MABROUK	3	5389166
	F MARTIN	5	5334745
	TIMOTHY PAHEK		5320152
	GORDON RIDDELL		5325754
	J E ROZICH	4	5376161
	CALVIN SUMLIN		5387674
	MOHAMED M MABROUK	3	5389166
19145	*ESSEX HOUSE APTS		5372317
	*MRS BERNSTEIN MGR		5372317
	ANNA T DUNPHY	4	5330243
	*ESSEX HOUSE APTS		5372317
	ROGER FELTON		5352482
	EARL J FOUGERE		5312802
	LEONARD E HAMPTON		5355461
	B J MANNING		5383969
	CEDRIC MCCAULEY		5387421
	MRS FRED STEVENS	1	5387421
	BASIL TEHLIRIAN	5	5332565
	JAMES THOMPSON	3	5322088
	MARY WILKS		5324370
19182	HARRY L MAMPEL		*5339194
19164		NP	
19224		NP	
19250	R K ELLIS	9	5352113
19258		NP	
19268	ARTHUR H GROSS		KE24463
19278	GARIEL MILLIGAN		KE11265
19300	LEONA FISHER		*5323675
19400	G VARTANIAN	8	KE17147
19410	PRESTON L CRINER		KE40508
19420		NP	
19430		NP	
19440	ALF J CONSTANTINES		5334456
	JOSEPH CONSTANTINE		KE57040
	M TEMPLETON		5334456
19450	GEORGE W DOHRING	2	5347658
19458	THOMAS F VALLEY		*5373091
19466	I A ROBAK	3	5323196
	PETER ROBAK		5313242
19474	L JACKSON		-5388436
19482		NP	
19490	PHILIP MOSCOWITZ		5356439
19498	LILLIAN M WITEK	1	2594960
19501	*TAFT JR HGH FD SV		5311064
	*TAFT JR HIGH SCHL		5311062
	*TAFT JR HGH SCHOOL		5311062
19506		NP	
19514	J SMEATHERS	3	5375579
19522	MRS BERT S WADE		5343739
19530		NP	
19540		NP	
19550		NP	
19560	THEODORE RING	2	2557014
19574	A A MARSHALL		5321470
19800	LEON A LABOWITZ	7	5388746
19820	A STEHREN	3	5382991
19830	DORIS A MCELROY	4	5346332
19842		NP	
19850	EUGENE C LAPKO	3	5358584
19955		NP	
19979		NP	
19989	E M WILSON	4	5327841
20010	HENRY FRIEDMAN	7	5387125
20015	RICHARD R BRENNANA		5351832
20024	WALTER F JARVIS		*5311556
20025		NP	
20041	ERWIN KARSCHNICK		5313041
20131	*REV L F FOURNIER		KE53131
	*ST EUGENES RECTORY		5353330
20134	HENRY S WICH	8	5332336
20185		NP	
20200		NP	
20203		NP	
20214		NP	
20224	A FOURNE		*5330678
20236		NP	
20246	GEORGE BOOT JR		5334614
20258		NP	
20266		NP	
20276		NP	
20284	*KUI-HSUAN		5320905
20306		NP	
20316	LEO B WILSON		-5370928
20326	JEROME K ALBOSTA		*5373155
20336		NP	
20348	SIDNEY WINKLER		5375886
20358		NP	
20366	THEODORE R GASTON	8	5343889
20380	MICHL SANTELLI	SRI	5311615
20403	ANDREW COPPOLA	1	5330936
20421		NP	
20431		NP	
20445	GEORGE VARKAS	0	5386858
20453	D JORIS		*2556349
20471		NP	
20485		NP	
20495	GERALD T LAMBOURN		-5339628
20505		NP	
20603		NP	
20613	FRANK M BUELDEW		*5342869
20623		NP	
	122 RESIDENCE	17	BUSINESS

BERG RD 1973

BERG RD		48219
...	17800-19099 T	455 \$B..B 2
...	19100-20699 T	45602 \$A..A 2
17802		NP
17826	SAMUEL MOSES	9.5331260
17836	JOSEPH E BORG	2 5326083
17848	FLORENCE SANDBURGO	5375470
	C SANDBURG	#5375470
17858	JOHN N VITTA	KE21377
17868	REV HAROLD L HECHT	.5347626
17888	DR R F HAPPEL	.KE11890
17898		NP
17910	BERNARD CLAES	#5344745
18214	DONALD PREVOST	2.5333264
18224	PAUL B MACMILLAN	1 2556386
18244	F A MARCHETTI JR	9 KE10032
18250	F E HARRINGTON	8 5317771
	PETER PAUL LYSHAK	5317771
18266	J SECORD	2 5348208
18280	GEORGE A SECORD	.KE56103
18298	ANTHONY J ROSZAK	.KE11327
	S ANN ROSZAK	.KE11327
18318	JOHN V MOORE	7.5354468
18420		NP
18601	*REDFORD PARK	5372150
	*REDFRD GLF PRO SHP	5324330
	*DET GOLF REDFORD	5372150
19122		NP
19130		NP
19142	JACQUELINE HERMES	#5324632
19143	*ESSEX HOUSE APTS	5372317
	*MRS BERNSTEIN MGR	5372317
	DR AMABLE R AGUILZ	#2552191
	JAMES THOMPSON	#5322088
	EDWARD YOUNCE III	#5341437
	E R WINSTANLEY	#5378941
	MOHAMED M MABROUK	#5389166
	CARL W HELGREN	#5320680
	ELAINE BERENBAUM	5 5380207
	MAX BERENBAUM	5 5380207
	HUGH A JONES	0 5385994
	MARTHA L MARSH	5 5325754
	B J BECK	2 5387952
	GORDON RIDDELL	5 5325754
	CHARLES E BAILEY	2 5383718
	SHAN KELLER	2 5384852
	ROBERT J KOVACH	2 5387529
	ROBERT BRECKENFELD	#5380994
19145	*ESSEX HOUSE APTS	5372317
	*MRS BERNSTEIN MGR	5372317
	SHARON VOGLER	#5386614
	ALLAN W PASI	#5327655
	ANNA JURKANS	#5341652
	B HERRERIA	#2559766
	TICE VICARY	1 5335398
	MRS FRED STEVENS	1 5387421
	B BRODSKY	8 5340403
	*ESSEX HOUSE APTS	5372317
	DEWEY R GRIFFITH	1 2555027
	DON MAGGI	1 2555027
19152	HARRY L MAMPEL	.KE35194
19164		NP
19224	C J MANNO	0 5334009
19250	R K ELLIS	9 5352113
19258		NP
19268	ARTHUR H GROSS	KE24453
19278	GARIEL MILLIGAN	.KE11265
19300	LEONA FISHER	5.5323675
19400	G VARTANIAN	8.KE17147
19410	PRESTON L CRINER	.KE40508
19420	ELLA SEDERHOLM	#2553727
19430		NP
19440	JOSEPH CONSTANTINE	.KE57040
	B R JONES	#5334456
19450	GEORGE W DOHRING	2.5347658
19458	THOMAS F VALLEY	.5373091
19466	I A ROBAK	#KE23196
19474	LAWRENCE R ANDREE	-5333823
19482		NP
19490	PHILIP MOSCOWITZ	.KE49085
19498	LILLIAN M WITEK	1.2554960
19501	*TAFT JR HIGH SCHL	5311062

BERG RD 1973

19501	*TAFT JR HIGH FD SV	5311064
19506	NP	
19514	J SMEATHERS	#5375579
19522	MRS BERT S WADE	5343739
19530	ROBERT W SWARTZ	0.5382157
19540	NP	
19550	MICHAEL CANNIZZARO	
		2.5376988
19560	THEODORE RING	2.2557014
19574	NP	
19800	LEON A LABOWITCH	7 5388746
19820	A STEHREN	#5382991
19830	NICK KEHAGIAS	1 5340137
19842	R KERR	#5325749
19850	EUGENE C LAPKO	-5358584
19955	NP	
19979	NP	
19989	ELI M WILSON	-5327841
20010	HENRY FRIEDMAN	7.5387125
20015	NP	
20024	WALTER F JARVIS	.5311556
20025	JOHN HILEWSKY	5.5330012
20041	ERWIN KARSCHNICK	.5313041
20131	REV L F FOURNIER	KE53131
	*ST EUGENES RECTORY	5353130
20134	HENRY S WICH	8.5332336
20185	GERTRUDE HAMMETT	#5313633
20200	JOSEPH C COSTANZO	.5325006
20203	NP	
20214	NP	
20224	A FOURNE	.5330679
20236	CARL MAY	.KE72265
20246	GEORGE BOOT JR	5334614
20258	CLARENCE M CLEARY9	.5377543
	CLARENCE M OLEARY9	5370054
20266	NP	
20276	WILLAIM R PAETOW	#5323558
20284	NP	
20306	MICHAEL C SULLIVAN	#5344905
20316	VALENTINE LEONE	6.5352936
20326	JEROME K ALBOSTA	6.5373155
20336	NP	
20348	SIDNEY WINKLER	5375886
20358	NP	
20366	THEODORE R GASTON	8.5343889
20380	MICHL SANTELLO SR	1.5311615
20403	ANDREW COPPOLA	1.5330936
20421	NP	
20431	DONALD H WEAK	.5382066
20445	GEORGE VARKAS	0.5386858
20453	O JORIS	5.5333528
20471	GERALD D LAMOUREUX	.KE18352
20485	NP	
20495	P LAMBOURN	.5346490
20505	NP	
20603	WILLIAM J MCNAMEE	#5386221
20613	FRANK M BUELOW	4.5342869
20623	NP	
	125 RESIDENCE	11 BUSINESS

BERG RD 1970

18250 HARRINGTON FRANCES MRS ●
 KF1-7771
 18266 SECORD JOHN ● KE4-8208
 18280 SECORD GEO A ● KE5-6103
 18298 ROSZAK ANTHONY J ●
 KF1-1327
 18318 MOORE JOHN V ●
 18420 BORG JOSEPH E ● KF2-6083
 18601 REDFORD GOLF COURSE
 KF7-2150

---W SEVEN MILE RD INTERSECTS 4
 19130 LEE YING K ● 534-1531
 19142 HERMES JOSEPH L ●
 19143 ESSEX HOUSE APARTMENTS
 KF7-2317

BERG RD 1965

18250 Harrington Frances E Mrs ©
mus tchr KE1-7771
18280 Secord Geo A © KE5-6103
18298 Roszak Anthony J © KE1-1327
18318 Condo Geo D © 538-3280
18420 Borg Jos E © KE2-1860
18601 Redford Golf Course 537-2150
101B

W 7 Mile rd intersects

19130 Adam Doris Mrs
19142 Hermes Jos L © KE2-4632
19143-45 Essex House apts
1 Branhut Bernhard 533-3593
2 Riddell Gordon 532-5754
3 Kelly David 538-4725
4 Marshall Willard E
5 Lorey Joan Mrs
6 Neal Chester M
7 Gelt Myron 538-3078
8 Ahlberg Ruth G Mrs 533-0886
9 Mack Mary Mrs KE5-9323
10 McQuiggan Mark C 534-3095
11 Delzer Eric

BERG RD 1956

Curtis av intersects

18214 Weber Eug S © Δ KE 3-4565
 18224 Vassallo Anthony L © Δ KE 1-0687
 18244 Kilsdonk Martin J © Δ KE 1-0032
 18250 Harrington Frances E Mrs © mut tohr
 Δ KE 1-7771
 18280 Secord Geo A ©
 18298 Hummers Wm S © Δ KE 2-9169
 18318 Hawthorne Dewey J © Δ KE 1-7557
 18420 Helsom Etta P Mrs © Δ KE 2-0234
 18601 Redford Municipal Golf Course
 Δ KE 2-7786

101B

W 7 Mile rd intersects

19205 LaFontaine Fredk J © Δ KE 4-5106
 19224 Thomas Wm F
 19250 Veno Andrew B
 19300 Buck Mamie Mrs © Δ KE 2-5637
 19400 Vartanian Albert N © Δ KE 1-7147
 19410 Criner Preston L © Δ KE 4-0508
 19420 Browning Chester W © Δ KE 1-1061

BERG RD 1940

(U)
 18280 Gagnier Louis F ©
 18298 Δ Clark Nellie M ©
 18420 Δ Helson Etta P
 Mrs ©
 18601 Δ Redford Golf Club
 19001 Δ McCosh Jas A ©
 19002 Vacant
 19011 Gaiser Gordon H ©
 Seven Mile rd intersects
 19205 Peddle Donald J
 19224 Bond Wm
 19250 Turney Hugh O ©
 Vassar av intersects
 19300 Hacker Russell H
 19434 Δ Schmidt Olga Mrs
 19469 Δ Gresehover Frank
 H ©

BERG RD 1935

Curtis av intersects

18214 Δ Campbell Arth J
 18224 Δ Streufert Wm F
 18244 Δ Kilsdonk Martin J
 18250 Δ Harrington Wm F
 18280 Gagnier Louis F
 18298 Δ Clark Nellie M
 French Ruth E Mrs
 18420 Δ Helson Etta P Mrs
 18601 Δ Bedford Golf Club
 19001 Schimmel Oscar O
 19011 Gaiser Gordon H

Seven Mile rd intersects

19205 Flaworth Jos O
 19224 Vacant

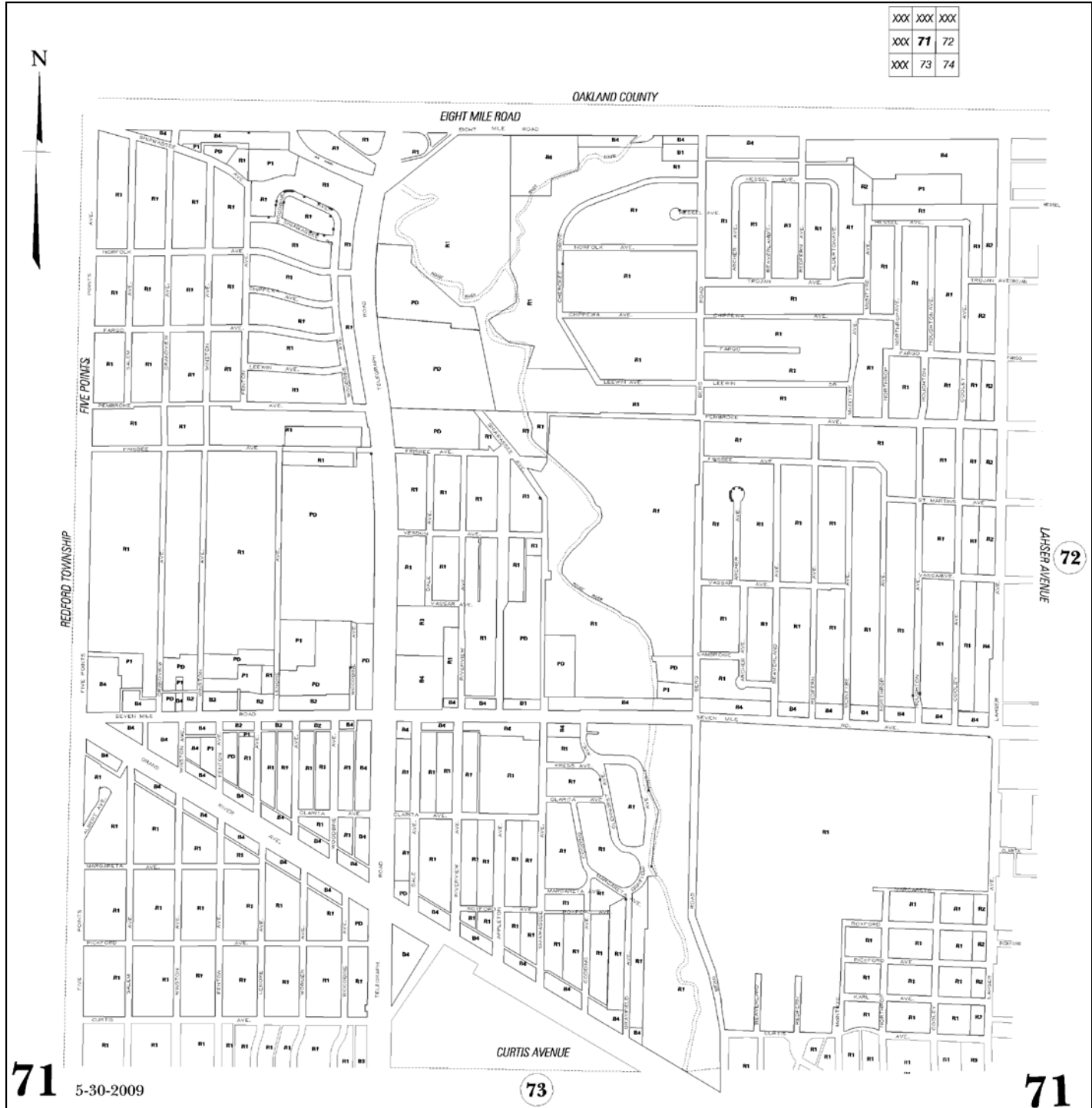
Vassar av intersects

19300 Δ Francis John G
 19434 Tilman Wm
 19469 Grimes Jas B
 19531 Δ Streufert Henry O
 plmbr

BERG RD 1931

17836 Zengerle Jos W
 contr
 17848 Flanagan Jos W
 Curtis intersects
 18214 French Edgar
 18224 Streufert Wm F
 18244 Kilsdonk Martin J
 18250 Parmenter Ellen Mrs
 18280 Gagnier Louis F
 18298 Clark Nellie M
 18420 Helson Etta P Mrs
 18601 Wolverine Golfing
 Assn Inc
 19001 Schimmel Oscar C
 19011 Richter Carl F
 Seven Mile rd intersects
 ws 1 n Fujil Geo Y
 19224 Host M E
 19300 Carmar Elton B
 Flikens Chas H
 Vassar intersects
 19434 Tillman Wm
 19469 Gresehover Frank H
 contr

Assignment of Specific Use Types to General Use Categories



Map 71. (Ord. No. 478-G, § 1, 12-9-69; Ord. No. 490-G, § 1, 2-3-70; Ord. No. 509-G, § 1, 5-19-70; Ord. No. 560-G, § 1, 1-5-71; Ord. No. 656-G, § 1, 2-8-72; Ord. No. 8-89, § 1, 4-26-89; Ord. No. 27-90, § 1, 12-5-90; Ord. No. 5-93, § 1, 2-3-93; Ord. No. 20-96, § 1, 7-31-96; Ord. No. 43-97, § 1, 12-10-97; Ord. No. 27-98, § 1, 9-23-98; Ord. No. 21-99, § 1, 7-21-99; Ord. No. 27-99, § 1, 8-4-99; Ord. No. 27-00, § 1, 11-22-00; Ord. No. 44-04, § 1, 11-22-04; Ord. No. 08-07, § 1, 4-17-2007; Ord. No. 07-09, § 1, 6-15-2009; Ord. No. 32-15, §1, 1-28-2016)

APPENDIX C
USER QUESTIONNAIRE
USER PROVIDED QUIT CLAIM DEED
OWNER/OCCUPANT QUESTIONNAIRE

DRAFT



PHASE I ENVIRONMENTAL ASSESSMENT – ALL APPROPRIATE INQUIRY USER QUESTIONNAIRE

In order to qualify for one of the Landowner Liability Protections (LLPs) offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the Brownfields Amendments to CERCLA), the User of a Phase I Environmental Site Assessment (ESA) must consider the issues discussed below as part of the User's All Appropriate Inquiry (AAI) to identify Recognized Environmental Conditions (RECs) associated with the Property. This information should be provided to the Environmental Professional conducting the Phase I ESA so that a complete report can be issued.

The User may decide not to provide this information to the Environmental Professional; however, the absence of the information will be noted in the Phase I ESA report and may affect assessment conclusions. Under these circumstances, it will be the User's responsibility to determine if the Phase I ESA results, combined with results from the tasks described below, is sufficient to satisfy the requirements of All Appropriate Inquiry as defined by federal statute and regulation.

Instructions:

1. Fill in all blanks.
2. Indicate "NA" (not applicable), if appropriate.
3. Attach additional pages with your signature if additional space is required.

Property Name: Former Rogell Golf Course

Property Location: 18600 and 18601 Berg Road, Detroit

County: Wayne State: Michigan

Questionnaire Completed By/Title: Kate Humphrey / Public-Private Partnership Specialist

Company/ Phone Number: City of Detroit Housing and Revitalization Department / 313-224-1398

On Behalf Of (if applicable): _____

Planned Date of Purchase/Lease (circle one): Prior to July 31, 2018

Time Period of Site Knowledge: Approximately one year

1. REASON FOR PHASE I ESA

The User of the requested Phase I ESA must make the reason for the Phase I ESA known to the Environmental Professional. Otherwise, it must be assumed that the reason is to qualify for an LLP to CERCLA liability. Please indicate the reason for this Phase I ESA of the Property.

- Due diligence/liability protection for purchase of the Property
- Due diligence/liability protection for lease of the Property
- Mortgage loan or refinance
- Foreclosure
- Other; explain _____



2. RECORDED ENVIRONMENTAL CLEANUP LIENS AND ACTIVITY/USE LIMITATIONS

The User is responsible to ascertain, through personal knowledge and/or a review of reasonably ascertainable recorded land and judicial records, if any environmental liens have been filed on the Property and if any activity or use limitations (AULs) have been placed on the Property because of environmental impact. You may engage a title company or other capable professional to undertake the review of reasonably ascertainable records on your behalf.

Have you conducted, or arranged to have conducted, a review of land title records in which recorded liens and activity/use restrictions would be revealed?

Yes No

If yes, please specify who conducted the review: First American Title Insurance Company

If yes, please specify the types and locations of records reviewed: Wayne County Land Records

Based on your personal knowledge and/or reviews of title records, are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state, or local law?

Yes No

If yes, explain briefly: _____

Based on your personal knowledge and/or reviews of title records, are you aware of any activity and/or use limitations, such as engineering controls, land use restrictions, or institutional controls, that are in place at the property and/or have been filed or recorded in a registry under federal, tribal, state, or local law?

Yes No

If yes, identify the land use limitations/restrictions: _____

3. SPECIALIZED KNOWLEDGE AND EXPERIENCE

Any specialized knowledge or experience of the User that could indicate, or create suspicion of, the presence environmental contamination on the Property must be considered as part of the AAI process. Specialized knowledge or experience includes familiarity with historic activities on the Property that could result in environmental impact, personal knowledge or experience that would indicate a risk of environmental impact associated with past Property uses, knowledge of the environmental history of the Property, and any other information that could indicate environmental impact or threat of environmental impact on the Property.



As the User of this environmental site assessment, do you have any specialized knowledge or experience related to the Property or adjoining properties?

Yes No

If yes, explain briefly: Property operated as a golf course for nearly 100 years, and was previously owned by the City of Detroit.

4. RELATIONSHIP OF PURCHASE PRICE TO VALUE

Historically, environmentally contaminated properties often have been sold at prices below market value to entice buyers to acquire the property, contamination, and resultant liabilities; therefore, if a property's sale price is significantly below market value without any obvious impairments or reasons for the reduced price, the potential for environmental impact as a cause of the reduced price must be evaluated.

Does the purchase price being paid for this Property reflect the fair market value of the Property?

Yes No

If there is a significant negative difference, can you identify the reason for the reduced price versus value? If "No" the Property may be assumed to be contaminated.

Yes No

If yes, explain briefly: N/A

5. COMMONLY KNOWN OR REASONABLY ASCERTAINABLE INFORMATION

Have you become aware, through conversations, rumor, etc., of any commonly known or reasonably ascertainable information within the local community that would indicate the Property could be contaminated (e.g. types of past uses, presence of storage tanks, use of chemicals, environmental cleanups, etc.) or that any past event (e.g. fire, chemical spill, accident, etc.) could have resulted in environmental impact of the Property or adjoining properties.

Yes No

If yes, explain briefly: Knowledge of storage of materials related to golf course and related operations.



6. PROCEEDINGS INVOLVING THE PROPERTY

Do you, the User of this environmental site assessment, based on your knowledge and experience related to the property, have any knowledge of any of the following:

- Pending, threatened, or past litigation related to hazardous substances or petroleum products in, on or arising from the Property?

Yes No

If yes, explain briefly: _____

- Pending, threatened, or past administrative proceedings related to hazardous substances or petroleum products in, on or arising from the Property?

Yes No

If yes, explain briefly: _____

- Notices from any governmental entity regarding any possible violation of environmental laws or regulations or possible liability relating to hazardous substances or petroleum products in, on or arising from the Property?

Yes No

If yes, explain briefly: _____

Kate Humphrey
Printed Name

Kate Humphrey
Signature

January 30, 2018
Date

M STATE OF
MICHIGAN
Wayne County
June 27, 2007 10:54:00 AM
Receipt # 225910



REAL ESTATE
TRANSFER TAX
\$0.00 - CO
\$0.00 - ST
Stamp # 26019

Bernard J. Youngblood
Wayne County Register of Deeds
June 27, 2007 10:54 AM
Liber 46429 Page 1043-1063
#207269932 GCD FEE \$75.00

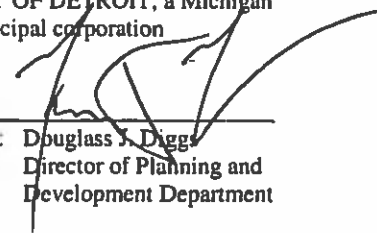
QUITCLAIM DEED

The CITY OF DETROIT, a Michigan municipal corporation, whose address is 2 Woodward Avenue, Detroit, Michigan 48226, quitclaims to GREATER GRACE TEMPLE OF THE APOSTOLIC FAITH, a Michigan ecclesiastical corporation ("Grantee"), whose address is 23500 W. Seven Mile Road, Detroit, Michigan 48219, the premises located at 18600 and 18601 Berg Road, in the City of Detroit, Wayne County, Michigan, as specifically described on Exhibit "A" attached hereto and made a part hereof (the "Property"), for the sum of Two Million One Hundred Thousand Dollars (\$2,100,000), subject to and reserving to the City of Detroit its rights under public easements and rights of way, easements of record, applicable zoning ordinances, and restrictions of record, as well as those easements, limitations and restrictions set forth on Exhibit "B" attached hereto and made a part hereof.

The following language is included pursuant to MCL Sections 560.109(3) and 560.109(4), added by 1996 PA 591, and applies only if the Property is not platted: "The Grantor grants to the Grantee the right to make all divisions under Section 108 of the land division act, Act No. 288 of the Public Acts of 1967, as amended. This property may be located within the vicinity of farmland or a farm operation. Generally accepted agricultural and management practices which may generate noise, dust, odors, and other associated conditions may be used and are protected by the Michigan right to farm act."

This deed is dated as of June 22, 2007.

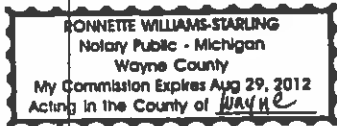
CITY OF DETROIT, a Michigan
municipal corporation

By: 
Print: Douglass J. Diggs
Its: Director of Planning and
Development Department

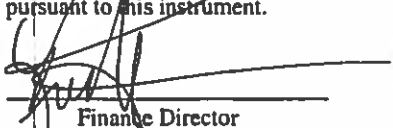

[notary on next page]

STATE OF MICHIGAN)
)ss.
 COUNTY OF WAYNE)

The foregoing instrument was acknowledged before me on June 22, 2007, by Douglass J. Diggs, the Director of the Planning and Development Department of the City of Detroit, a Michigan municipal corporation, on behalf of the City.



Bonnette Williams-Starling
 Notary Public, Wayne County, Michigan
 Acting in Wayne County
 My commission expires: 8-29-2012

Pursuant to § 18-5-12 of the Detroit City Code, I hereby certify that proper and fair consideration has been received by the City pursuant to this instrument.  _____ Finance Director	Approved by the City Law Department pursuant to Sec. 6-406 of the Charter of the City of Detroit:  _____ Corporation Counsel
Adopted by City Council on 6/20/07. Approved by the Mayor on 6/21/07. J.C.C. _____, on file in the office of the City Clerk.	
This Instrument Drafted by: Bruce N. Goldman, Esq. City of Detroit Law Department 660 Woodward Avenue, Suite 1650 Detroit, MI 48226	When recorded, return to: Charles H. Ellis, III Greater Grace Temple 23500 W. Seven Mile Road Detroit, MI 48219

Ward 22, Items 16650-2 and 16653

Exempt from transfer taxes pursuant to MCL § 207.505(h)(i) and MCL § 207.526(h)(i).

Exhibit A

Land in the City of Detroit, County of Wayne and State of Michigan being all that part of the Northeast $\frac{1}{4}$ of Section 9, Town 1 South, Range 10 East, lying South of the Seven Mile Road and between Berg Road and Lahser Road and more particularly described as: Beginning at a point in the intersection of the South line of the Seven Mile Road with the West line of Lahser Road, said point being distance South 0 degrees 45 minutes 50 seconds East 85 feet and North 89 degrees 23 minutes 30 seconds West 33 feet from the Northeast corner of said Section 9; thence along the Westerly line of Lahser Road South 0 degrees 40 minutes 14 seconds East 1274.40 feet to a point in the Northerly line of Margareta Avenue, 30 feet wide, as now established, said point also being on the Northerly line of Malvern Hill Subdivision of part of the Southeast $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ of Section 9, Town 1 South, Range 10 East, Redford Village (now Detroit), Wayne County, Michigan as recorded in Liber 35, Page 36 of Plats of Wayne County Records; thence along said Northerly line of last mentioned subdivision North 89 degrees 30 minutes 51 seconds West 1243.66 feet to a point in the Northwest corner of said subdivision; thence along the Westerly line of last mentioned subdivision, said line also being the Westerly line of McIntyre Avenue, 30 feet wide, as now established, South 1 degree 09 minutes 41 seconds East 565.05 feet to a point; thence along a line South 89 degrees 31 minutes 38 seconds West 1158.06 feet to a point in the Easterly line of Berg Road, 66 feet wide, as now established; thence along the Easterly line of Berg Road North 21 degrees 40 minutes 53 seconds West 253.22 feet to a point; thence continuing along the said Easterly line of Berg Road North 1 degree 29 minutes 33 seconds West 1659.28 feet to a point in the Southerly line of Seven Mile Road, 88 feet wide, as now established; thence along said Southerly line of Seven Mile Road South 89 degrees 24 minutes 41 seconds East 2481.02 feet; thence South 45 degrees 52 minutes 11 seconds East 43.49 feet to the place of beginning.

Also, all that part of the Northeast $\frac{1}{4}$, the Northwest $\frac{1}{4}$, the Southeast $\frac{1}{4}$ and the Southwest $\frac{1}{4}$ of Section 9, Town 1 South Range 10 East, more particularly described as: Beginning at a point in the Northwest $\frac{1}{4}$ of said Section 9, said point also being the intersection of the Southerly line of Seven Mile Road, 120 feet wide, as now established; with the Westerly line of Berg Road, 66 feet wide, as now established; thence along the Westerly line of Berg Road South 1 degree 29 minutes 33 seconds East 1667.15 feet to a point; thence continuing along the Westerly line of Berg Road on the following bearings and distances South 21 degrees 40 minutes 53 seconds East 252.74 feet to a point; thence South 23 degrees 30 minutes 13 seconds East 244.01 feet to a point; thence South 15 degrees 25 minutes 43 seconds East 249.23 feet to a point; thence South 11 degrees 49 minutes 53 seconds East 256.81 feet to a point; thence South 2 degrees 58 minutes 43 seconds East 523.66 feet to a point in the Northerly line of Grand River Avenue, 120 feet wide, as now established; thence along said Northerly line, North 61 degrees 34 minutes 57 seconds West 784.73 feet to a point; thence North 0 degrees 59 minutes 53 seconds West 1014.68 feet to a point; thence North 87 degrees 49 minutes 57 seconds East 27.50 feet to a point; thence North 2 degrees 10 minutes 03 seconds West 453.30 feet to a point; thence North 78 degrees 24 minutes 57 seconds East 95 feet to a point in the center of the Rouge River; thence upstream along the following bearings and distances: North 32 degrees 56 minutes 43 seconds West 100.53 feet to a point; thence North 6 degrees 11 minutes 57 seconds East 292 feet to a point; thence North 0 degrees 46 minutes 53 seconds West 185.43 feet to a point; thence North 31 degrees 44 minutes 33 seconds West 175.91 feet to a point; thence North 15 degrees 50 minutes 33 seconds West 120.79 feet to a point; thence North 4 degrees 46 minutes 37 seconds East 253.60 feet to a point; thence North 13 degrees 46 minutes 22 seconds East 46.93 feet to a point; thence South 88 degrees 34 minutes 33 seconds West 33.96 feet; thence North 4 degrees 56 minutes 54 seconds East 146.86 feet to a point in the Southerly line of Seven Mile Road, 120 feet wide, as now established; thence along said Southerly line North 88 degrees 34 minutes 33 seconds East 364.44 feet to the place of beginning. Containing approximately 120.79 acres more or less.

The above described land is subject to permanent and temporary easements for the Detroit Water and Sewerage Department for construction, operation and maintenance of a tunnel and associated sewers and facilities. Upper Rouge Tunnel, CSO Control Project easements being more particularly described as follows:

DESCRIPTION CORRECT
ENGINEER OF SURVEYS

By 

METCO Services, Inc.

William G. Rozell Golf Course
18600 Berg Road and 18601 Berg Road
Ward 22 Items 016650-2 and 016653

EXHIBIT "B"

Drop Shaft – 10: Permanent and Temporary Construction Easements:

Construction of the Near Surface Facilities at the Drop Shaft-10 site will impact the intersection of Berg and Seven Mile Roads, Site A, and the Rogell Golf Course Property south of Seven Mile Road on both the west side, Site B, and east side, Site C, of Berg Road. Near Surface Facilities consist of a diversion chamber, a sewer outfall to the Rouge River, collection sewer conduits, and a drop shaft to convey sewage to the tunnel which is to be constructed in rock approximately 160 feet below ground surface.

Construction traffic access to Sites A, B, and C is anticipated to occur from Seven Mile Road, with occasional access from Berg Road. Prior to construction, overhead electric and cable utilities will need to be temporarily relocated along the east and south edges of the temporary construction easement at Site C, which lies east of Berg Road.

Site A is not in Rogell Golf Course, but its use is described here because it is immediately adjacent to the north boundary of the Golf Course.

Site A - City of Detroit Street Right-of-Way: A large diversion structure must be constructed in the intersection of Seven Mile and Berg Roads. This work involves the construction of sewers, temporary removal and relocation of water mains, and temporary relocation of underground and overhead power lines. During construction, Berg Road will be closed to through traffic, and traffic on Seven Mile Rd. will be restricted to one lane in each direction.

Restoration: Site A, which is a City Street Right-of-Way, will be restored to its condition prior to the start of construction.

Site B(W/I # 22/016650-2;18600 Berg Rd.) – Permanent and Temporary Easements: A new sewer outfall, i.e. an approximately fourteen foot wide box culvert will be constructed west of Berg Road in Rogell Golf Course south of and adjacent to the Seven Mile Road south Right-of-Way line, between the Rouge River and Berg Rd. The base of the outfall will be thirty feet below grade. The excavation will be thirty feet deep, and will be supported by sheet piling on the north side, and possibly on the south side. The permanent construction easement will include the new outfall and a thirteen foot wide area on each side of the culvert for access after construction for operation and maintenance. The temporary easement will be 140 feet wide, including the permanent easement. The temporary easement is needed for excavation and construction of the box culvert, temporary stockpiling of excavated material, temporary storage of

construction materials e.g. pre-cast box culvert sections and reinforcing steel, an area for assembly of construction components e.g. steel reinforcement for structural concrete, operation of a crane and other construction equipment, and loading and unloading of trucks.

Restoration: The temporary shoring required to support the excavation, e. g. steel sheet piling or rib and lagging, will be removed. The ground surface at Site B will be restored to its elevation

prior to the start of construction. The level area will be restored to its original aggregate surface, and slopes adjacent to the River will be topsoiled, seeded and mulched.

Restriction on future use: No permanent structures may be constructed within the permanent easement. However, the permanent easement may be used for parking of private automobiles. There would be no restriction on the use of the area of the temporary construction easement south of the permanent easement, except that the new outfall must be protected during any future construction that is close to the new outfall.

Site C (W/I # 22/106653; 18601 Berg Rd.) - Permanent and Temporary Easements: A thirteen foot diameter drop shaft will be constructed east of Berg Road, South of Seven Mile Road, to convey sewage from combined sewers near the ground surface to the proposed tunnel which will be approximately 160 feet below ground. Sewer conduits and a ventilation shaft will be constructed in this site to connect existing sewers to the drop shaft. This construction will occupy the permanent easement. The permanent easement would also provide for future access to the drop shaft and sewer conduits for operation and maintenance. The majority of the permanent easement will be excavated to a depth of approximately fifty feet. The temporary easement is needed for excavation and construction of the above described works, shoring of the excavation, temporary stockpiling of excavated material, storage of construction materials, an area for assembly of construction components e.g. steel reinforcement for structural concrete, operation of a crane and other construction equipment, loading and unloading of trucks, temporary relocation of underground and overhead utilities, for office trailers and for contractor parking of workers' private vehicles.

Restoration: The temporary shoring required to support the excavation, e.g. steel sheet piling or rib and lagging, will be removed. The ground surface at Site C will be restored to its elevation prior to the start of construction, and will be topsoiled, seeded and mulched.

Restriction on future use: No permanent structures may be constructed within the permanent easement. There would be no restriction on the use of the area of the temporary construction easement, outside of the permanent easement, except that the new drop shaft and collector sewers must be protected during any future construction that is close to these facilities.

The proposed deep rock tunnel, adit, and deaeration chamber, which will be constructed under a separate contract, but which are part of the same project, will be constructed subsequent to the construction of the Near Surface Facilities. The temporary easements at Sites B and C will also be needed, after construction of Near Surface Facilities is completed, to provide temporary access when the deep tunnel adit is connected to Drop Shaft 10, and when the project is placed into service.

Construction schedule: Construction for Drop Shaft-10, i.e. Sites A, B and C, will start no later than December 15, 2009 and will cease approximately fifty (50) months after the start of work.

Drop Shaft – 10 A: Permanent and Temporary Construction Easements:

Construction of the Near Surface Facilities at the Drop Shaft-10 A site will impact the east side of Grayfield Avenue from Margareta Avenue to Glenhurst Street, a portion of the Rogell Golf Course Property on the west side of the Rouge River, a part of the Rouge Valley Flood Control, and a part of the Parkway. (The Rouge Valley Flood Control and the Parkway adjoin the west property line of Rogell Golf Course, at Grayfield north of Margareta, and are not a part of Rogell Golf Course.) Near Surface Facilities consist of a diversion chamber, a sewer outfall to the Rouge River, a surge control structure, collection sewer conduits, a surge control volume structure and a drop shaft to convey combined sewage to the proposed tunnel which will be constructed in rock approximately 160 feet below ground surface.

Construction traffic access to Site A is expected to occur from Seven Mile Road and Grand River Avenue.

Site A (W/I # 22/016553) – Permanent and Temporary Easements: A Drop Shaft will be constructed in Rogell Golf Course, between the west property line and the west bank of the Rouge River. The Drop Shaft will be a five-foot diameter structure approximately seventy-five feet deep, and will be surrounded by the Surge Control Volume Structure (SCVS). The SCVS will be thirty-two feet in diameter; its top will be approximately twenty feet above the ground level and the bottom of the SCVS will be about seventy feet below ground. A Surge Control Structure (SCS) will be built in the east side of Grayfield. A ten foot by ten foot box structure, i.e. a collector sewer conduit, will be built partly in Grayfield and in Rogell Golf Course to connect the Surge Control Structure with the Drop Shaft. The collector sewer conduit will be approximately twenty feet below the ground surface. The permanent easement in Rogell Golf Course, will be of variable width, be located between the east side of Grayfield Avenue (the west property line of Rogell Golf Course) and the west bank of the Rouge River. The Drop Shaft and Surge Control Volume Structure, and the collector sewer conduit will be in the permanent easement. The permanent easement will also provide for access to these facilities after construction for operation and maintenance.

The temporary easement will be of variable width, be located between the east side of Grayfield Avenue (west property line of Rogell Golf Course) and the west bank of the Rouge River, and will include the permanent easement. The temporary easement is needed for excavation and construction of a diversion chamber, a sewer outfall (and headwall) to the Rouge River, a surge control structure, collection sewer conduits, a surge control volume structure and a drop shaft; temporary stockpiling of excavated material; an area for assembly of construction components, e.g. steel reinforcement for structural concrete; operation of a crane and other construction equipment; and loading and unloading of trucks.

Restoration: The temporary shoring required to support the excavation, e.g. steel sheet piling or rib and lagging, will be removed. The ground surface at Site A will be restored to its elevation prior to the start of construction, and will be topsoiled, seeded and mulched.

Restriction on future use: No permanent structures may be constructed within the permanent easement. There would be no restriction on the use of the temporary construction easement

outside of the permanent easement, except that the drop shaft and associated facilities must be protected during any future construction that is close to the drop shaft.

Construction schedule: Construction for DS-10A will start no later than July 15, 2011, and will be completed approximately thirty-one (31) months after the start of work, which will include the deaeration chamber and adit to the tunnel.

Tunnel: Permanent Easements:

Tunnel (W/I # 22/016650-2; 18600 Berg Rd. and W/I # 22/106653; 18601 Berg Rd.) – Permanent Easement for a Tunnel, Adits and Deaeration Chambers: An one hundred foot wide permanent easement is required for construction, operation and maintenance of a tunnel to be constructed in rock approximately 160 feet below ground surface in rock. The proposed tunnel will be thirty five feet in diameter, and will be constructed of reinforced concrete, and will run through Rogell Golf Course from Grand River to Seven Mile Road for a distance of approximately 2,800 feet. In the south section of the golf course the tunnel will be west of Berg Rd. In the north section of the golf course the tunnel will be east of Berg Rd. and cross to the west side of Berg Rd. as the tunnel approaches Drop Shaft-10.

A one hundred foot wide permanent easement will also be required to connect Drop Shaft-10 to the proposed tunnel, and to connect Drop Shaft-10A to the tunnel. These connections are comprised of a deaeration chamber and adit which will be constructed in rock approximately 160 feet below the surface. The deep rock tunnel, deaeration chambers and adits, which comprise another construction contract, but which are part of the same project, will be constructed subsequent to the construction of the Near Surface Facilities, as mentioned above under Drop Shaft-10 and Drop Shaft-10A. Sites B and C at Drop Shaft-10, and Sites A and B at Drop Shaft-10A will need to be accessed temporarily when the deep tunnel adits are connected to the Drop Shafts, and when the project is placed into service. This activity will likely occur at the end of this approximately six year long project

Restoration: No restoration will be required at ground surface after construction of the proposed tunnel, except at the sites of Drop Shaft-10 and Drop Shaft-10A. Such restoration will be as described above under Drop Shaft-10 and Drop Shaft-10A.

Restriction on future use: None, unless a structure is to be constructed which would require a foundation to be constructed to a depth at or below eighty feet below the ground surface.

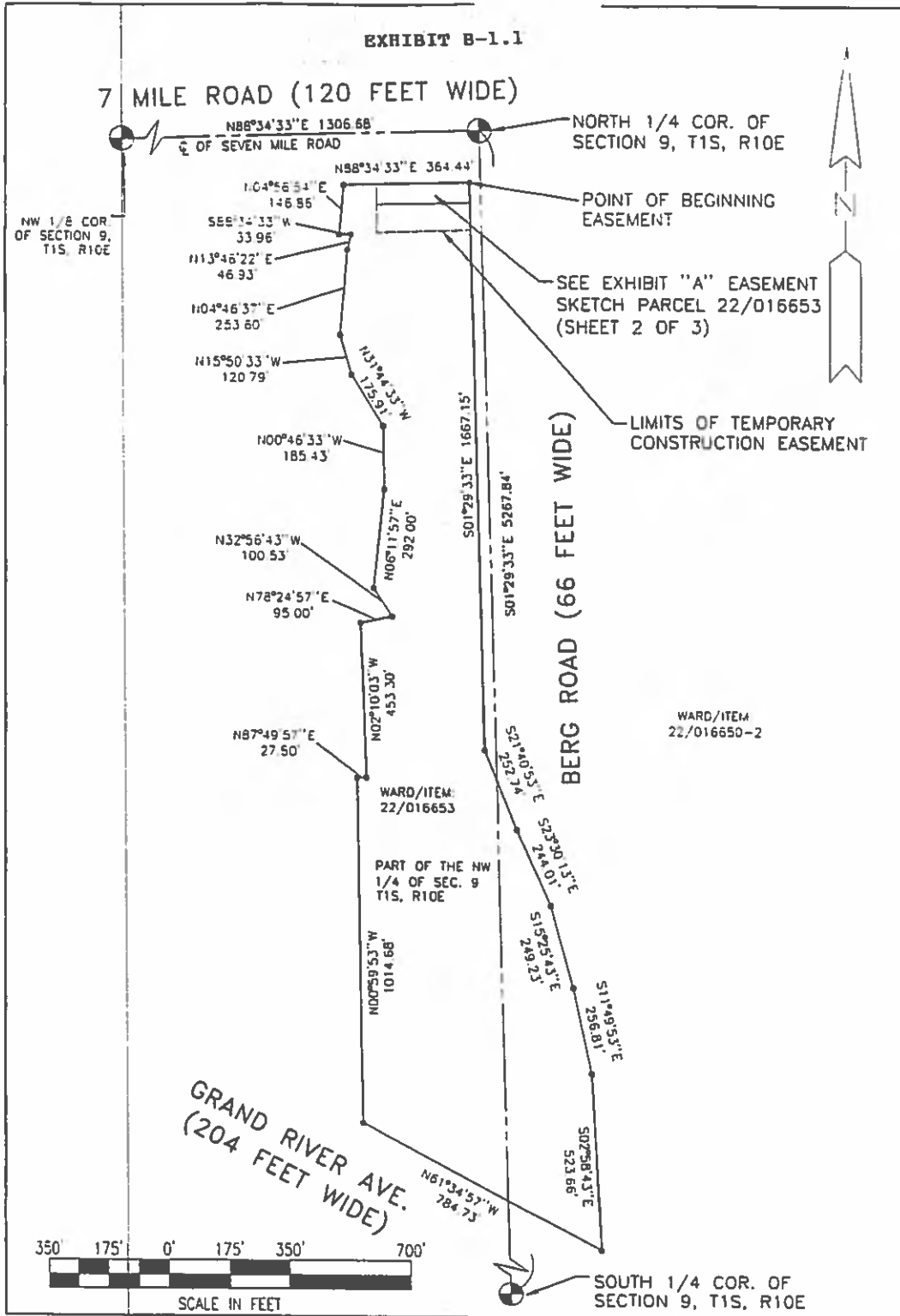
See Attached Exhibits:

B-1.1, B-1.2, B-1.3, B-2.1, B-2.2, B-3.1,

B-3.2, B-3.3, B-4.1, B-4.2, B-4.3, B-4.4

B-4.5, B-4.6

EXHIBIT B-1.1

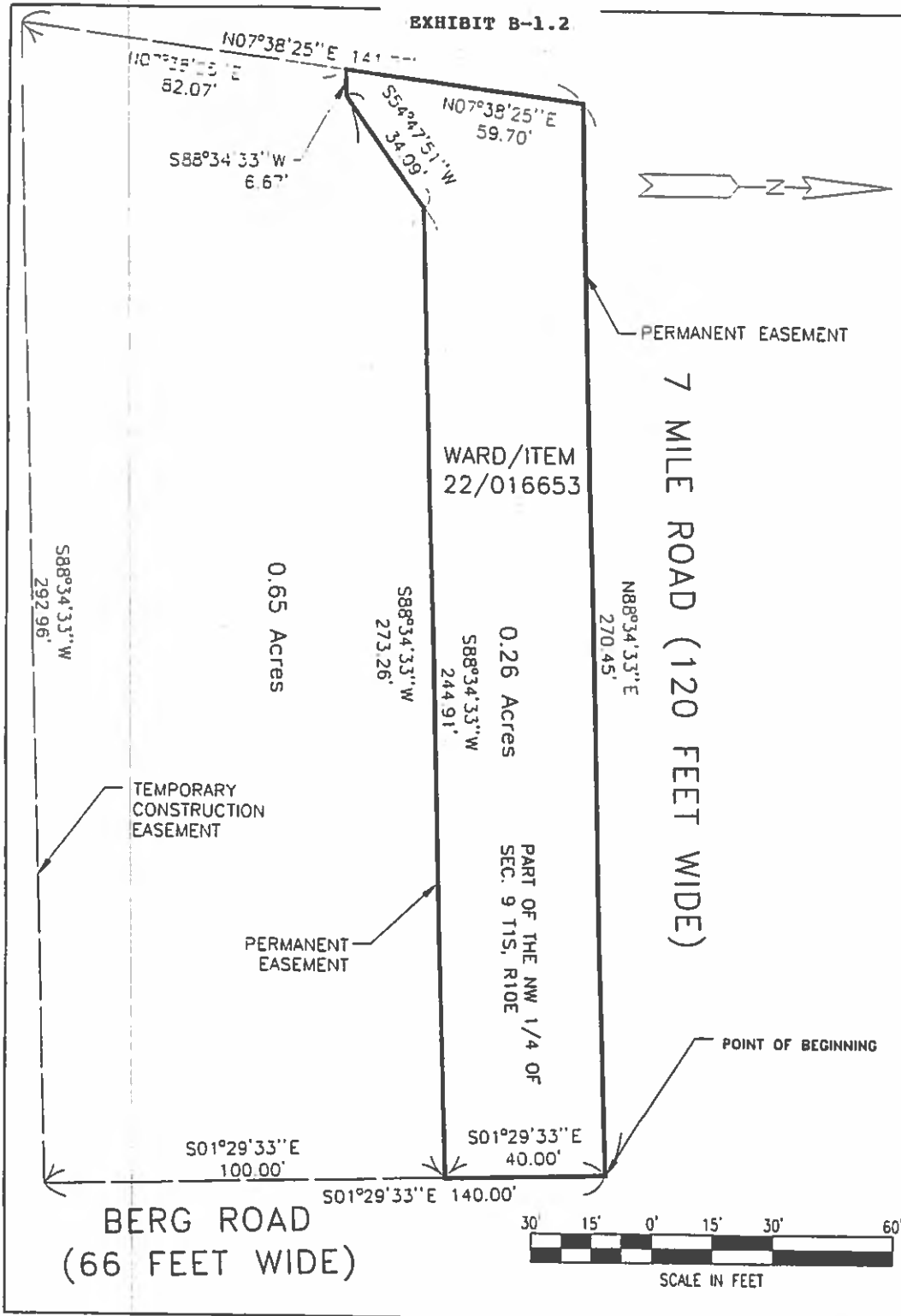


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EXHIBIT B-1.3

PARCEL INFORMATION

Ward/Item - 22/016653
 Owner: RECREATION DEPT 146
 Address: 18601 BERG RD

PARCEL DESCRIPTION (AS TAKEN FROM CITY OF DETROIT RECORDS)

S SEVEN MILE W ALL THAT PT OF SEC 9 T 1 S R 10 E LYG W & ADJ BERG RD 66 FT WD E & ADJ PHILBRICK & CROSS SUB AND E & ADJ AND N & ADJ GLENBROOK SUB BTW W SEVEN MILE RD 120 FT WD & W GRAND RIVER AVE 204 FT WD EXC W 431.14 FT ON N LINE BG W 414.84 FT ON S LINE 178 GLENBROOK SUB L44 P6 PLATS

TEMPORARY CONSTRUCTION EASEMENT DESCRIPTION

A variable width private easement for C.S.O. collection facilities over that part of Parcel 22/016653, (City of Detroit records), being described as:


Beginning at the northeast corner of said parcel; Thence S01°29'33"E along the west line of Berg Road (66 feet wide) also being the east line of said parcel, 140.00 feet; thence S88°34'33"W 292.96 feet; thence N07°38'25"E 141.77 feet; thence N88°34'33"E along the south line of West Seven Mile Road (120 feet wide) also being the north line of said parcel 270.45 feet to the POINT OF BEGINNING Containing 0.91 Acres (39439 square feet) more or less.

PERMANENT EASEMENT DESCRIPTION

A variable width private easement for C.S.O. collection facilities over that part of Parcel 22/016650, (City of Detroit records), being described as:

Beginning at the northeast corner of said parcel; Thence S01°29'33"E along the west line of Berg Road (66 feet wide) also being the east line of said parcel, 40.00 feet; thence S88°38'24"W 244.91 feet; thence S54°47'51"W 34.09 feet; thence S88°34'33"W 6.67 feet; thence N07°38'25"E 59.70 feet; thence N88°34'33"E, along the south line of West Seven Mile Road (120 feet wide) also being the north line of said parcel 270.45 feet to the POINT OF BEGINNING. Containing 0.26 acres (11313 square feet) more or less.

FOR:
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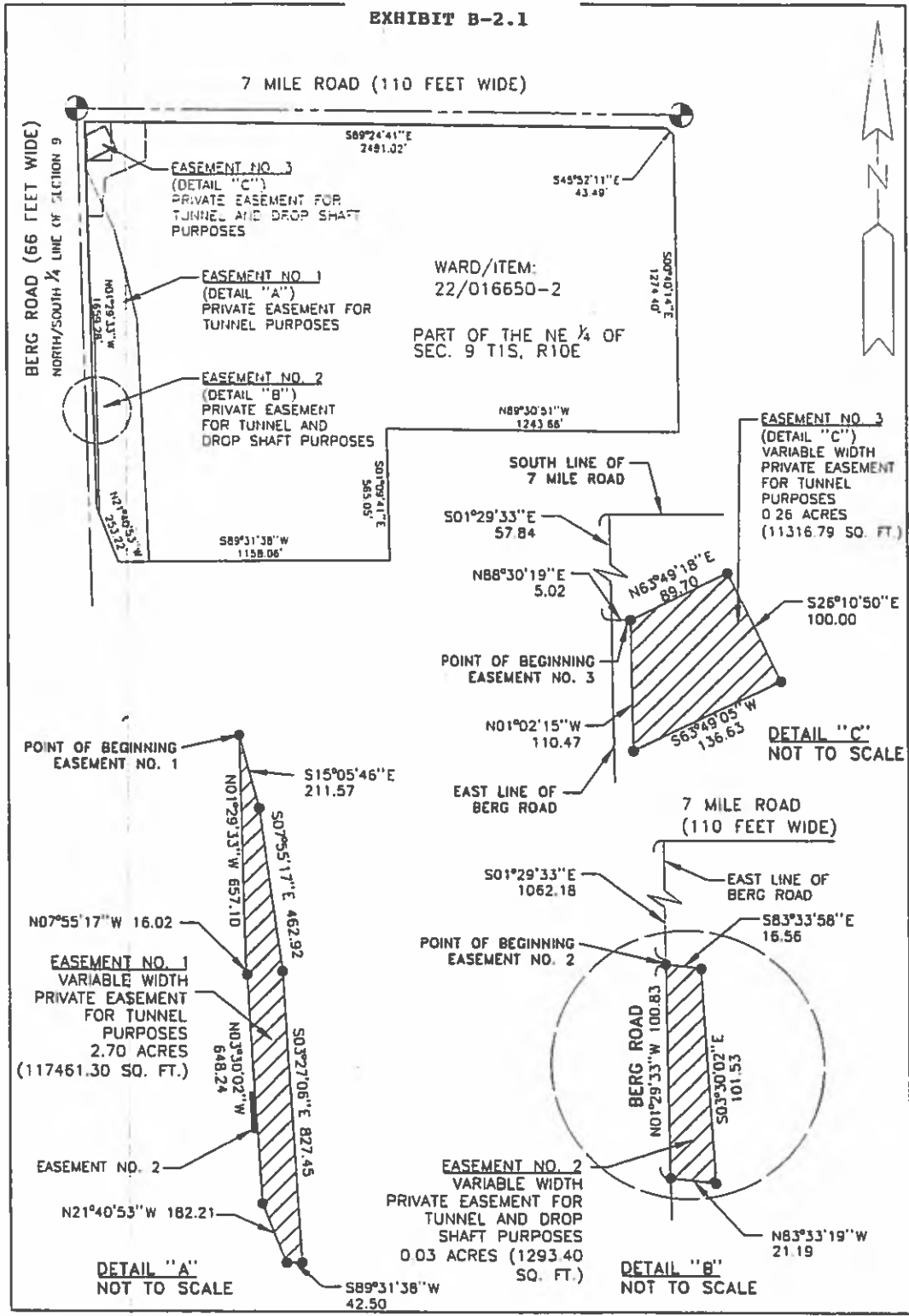


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EXHIBIT B-2.1



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EXHIBIT B-2.2

**EASEMENT NUMBER 1
(DETAIL A)**

COMMENCING AT THE NORTHWEST CORNER OF PARCEL NUMBER 22/016650-2, THENCE S01°29'33"E, ALONG THE EAST RIGHT OF WAY OF BERG ROAD, 405.88 FEET TO THE POINT OF BEGINNING, THENCE S15°05'46"E 211.57 FEET; THENCE S07°55'17"E 462.92 FEET, THENCE S03°27'06"E 827.45 FEET TO THE SOUTH LINE OF SAID PARCEL, THENCE S89°31'38"W ALONG SAID SOUTH LINE OF PARCEL TO A POINT THAT INTERSECTS THE EAST LINE OF BERG ROAD 42.50 FEET, THENCE N21°40'53"W ALONG SAID EAST RIGHT OF WAY LINE OF BERG ROAD 182.21 FEET, THENCE N03°30'02"W CONTINUING ALONG SAID RIGHT WAY 648.24'; THENCE N07°55'17"W 16.02 FEET; THENCE N01°29'33"W 657.10 FEET ALONG SAID RIGHT OF WAY TO THE POINT OF BEGINNING, CONTAINING 2.70 ACRES MORE OR LESS.

**EASEMENT NUMBER 2
(DETAIL B)**

COMMENCING AT THE NORTHWEST CORNER OF PARCEL NUMBER 22/016650-2, THENCE S01°29'33"E, ALONG THE EAST RIGHT OF WAY OF BERG ROAD, 1062.18 FEET, THENCE S07°55'17"E 16.02 FEET, THENCE S03°30'02" 263.63 FEET TO THE POINT OF BEGINNING, THENCE S83°33'58"E 16.56 FEET, THENCE S03°30'02"E 101.53 FEET, THENCE N83°33'19"W 21.19' TO A POINT THAT INTERSECTS THE EAST LINE OF SAID BERG ROAD, THENCE N01°29'33"W 100.83 FEET ALONG SAID EAST RIGHT OF WAY LINE TO THE POINT OF BEGINNING, CONTAINING 0.03 ACRES MORE OR LESS.

**EASEMENT NUMBER 3
(DETAIL C)**

COMMENCING AT THE NORTHWEST CORNER OF PARCEL NUMBER 22/016650-2, THENCE S01°29'33"E, ALONG THE EAST RIGHT OF WAY OF BERG ROAD, 57.84 FEET, THENCE N88°30'19"E 5.02 FEET, THENCE N63°49'18"E 89.70 FEET, THENCE S26°10'50"E 100.00 FEET, THENCE S63°49'05"W 136.63 FEET, THENCE N01°02'15"W 110.47 FEET TO THE POINT OF BEGINNING, CONTAINING 0.26 ACRES MORE OR LESS.

FOR:
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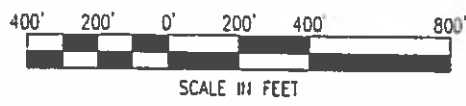
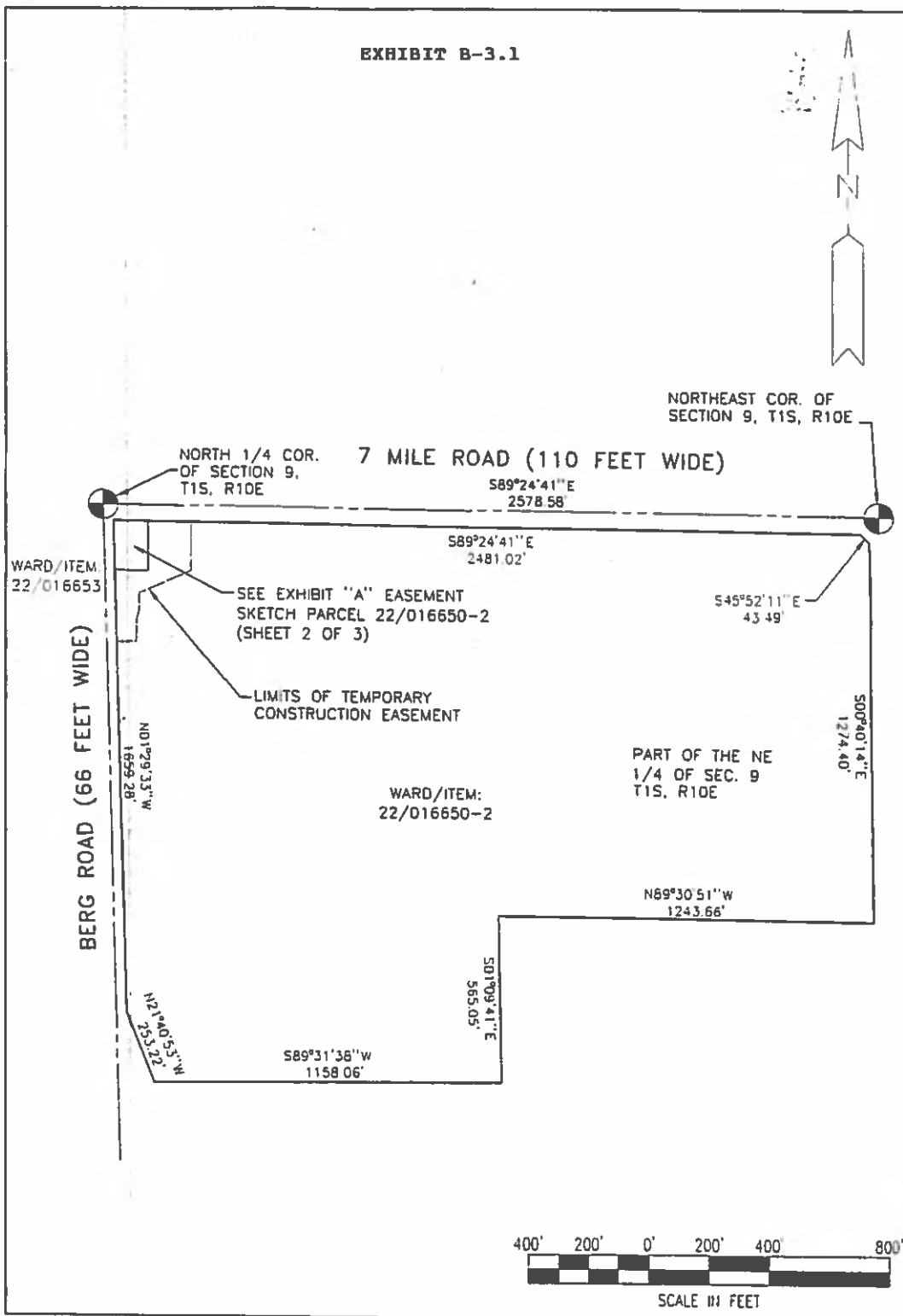
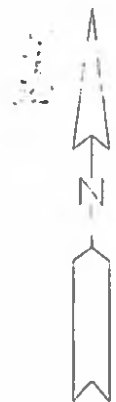
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EXHIBIT B-3.1



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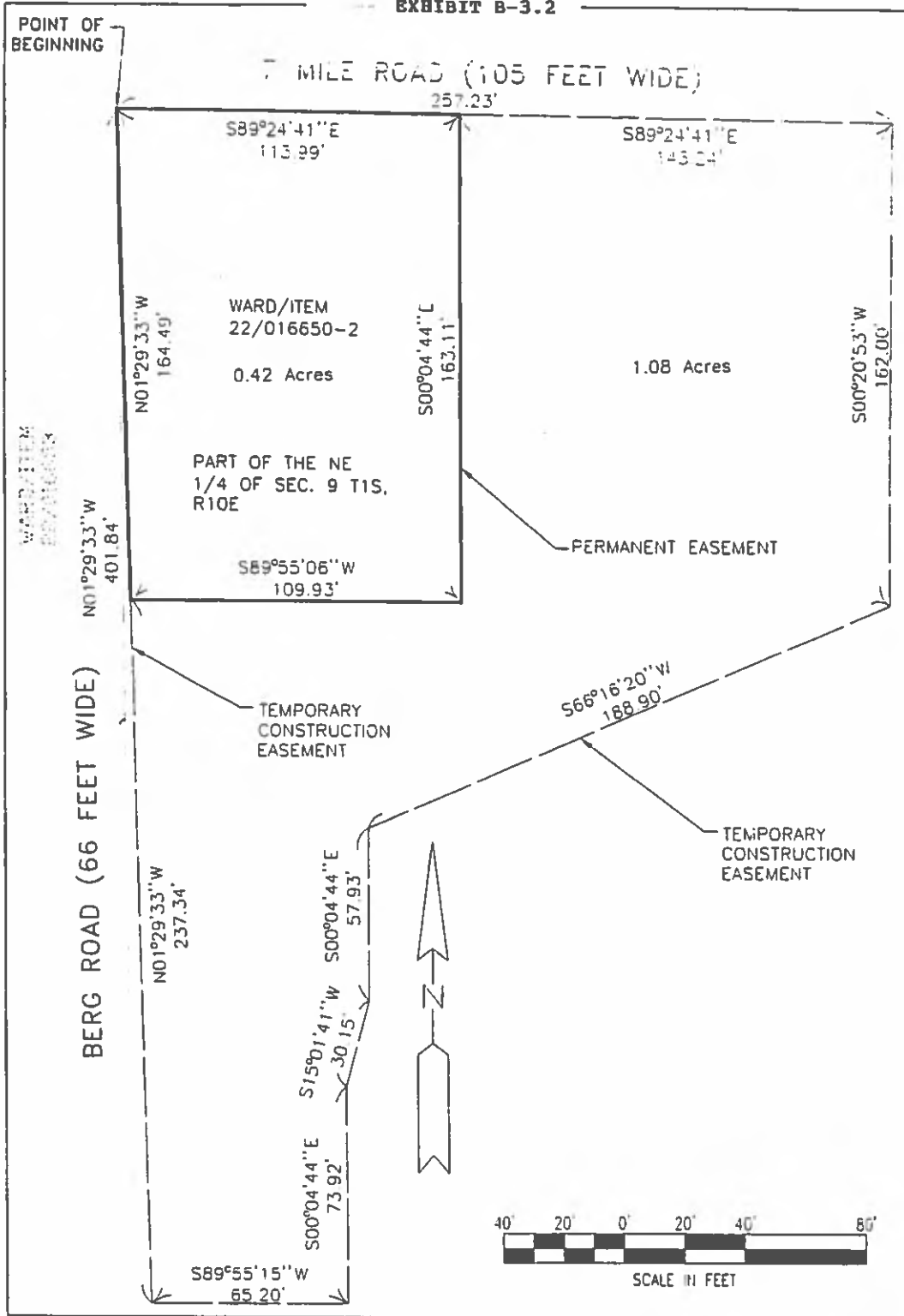
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EXHIBIT B-3.2



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EXHIBIT B-3.3PARCEL INFORMATION

Ward/Item - 22/016650-2
 Owner: RECREATION DEPT 146
 Address: 18600 BERG RD

PARCEL DESCRIPTION (AS TAKEN FROM CITY OF DETROIT RECORDS)

S SEVEN MILE W ALL THAT PT OF N E 1/4 OF SEC 9 T 1 S R 10 E DESC AS FOLS--BEG AT A PTE IN E LINE OF BERG RD 66 FT WD BG ALSO IN S LINE OF SEVEN MILE RD AS WD TH S 89D 23M 30S E 2510.96 FT ALG SD S LINE TH S 00D 45M 50S E 1305.10 FT ALG W LINE LAHSER AVE TH N 89D 27M 40S W 1243.66 FT TH S 01D 08M 30S E 565.05 FT TH S 89D 30M 54S W 1163.75 FT TH N 21D 32M 30S W 253.22 FT ALG E LINE BERG RD TH N 01D 21M 10S W 1659.66 FT ALONG SAID LINE TO PTE OF BEG 22

TEMPORARY CONSTRUCTION EASEMENT DESCRIPTION

A variable width private easement for C.S.O. collection facilities over that part of Parcel 22/016650, (City of Detroit records), being described as:

Beginning at the northwest corner of said parcel; Thence S89°24'41"E along the south line of Seven Mile Road (105 feet wide) also being the north line of said parcel, 257.23 feet; thence S00°20'53"W 162.00 feet; thence S66°16'20"W 188.90 feet; thence S00°04'44"E 57.93 feet; thence S15°01'41"W 30.15 feet; thence S00°04'44"W 73.92 feet; thence S89°55'15"W 65.20 feet; thence N01°29'33"W along the east line of Berg Road (66 feet wide) also being the west line of said parcel 401.84 feet to the POINT OF BEGINNING. Containing 1.50 Acres (65465 square feet) more or less.

PERMANENT EASEMENT DESCRIPTION

A variable width private easement for C.S.O. collection facilities over that part of Parcel 22/016650, (City of Detroit records), being described as:

Beginning at the northwest corner of said parcel; Thence S89°24'41"E along the south line of Seven Mile Road (105 feet wide) also being the north line of said parcel, 113.99 feet; thence S00°04'44"E 163.11 feet; thence S89°55'06"W 109.93 feet; thence N01°29'33"W along the east line of Berg Road (66 feet wide) also being the west line of said parcel 164.49 feet to the POINT OF BEGINNING. Containing 0.42 Acres (18334 square feet) more or less.

FOR:
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 DETROIT, MI 48226

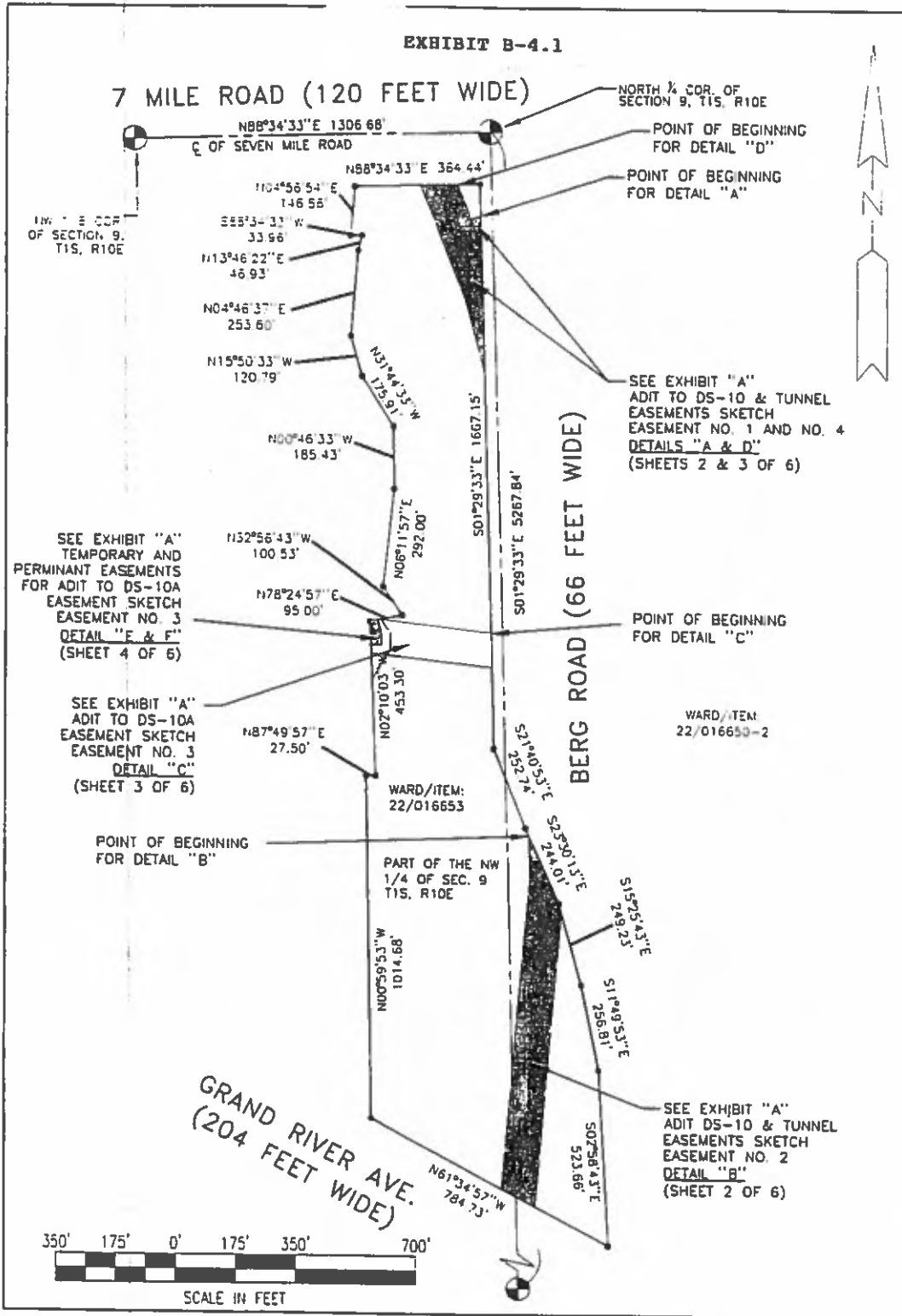


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DR BY: NLG	COMP BY: NLG	
CK BY: JEF	SRVY BY: METCO	
JOB #:	JAC2001 01D	
SHEET:	3	OF 3

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EXHIBIT B-4.1



FOR:
 DETROIT WATER AND SEWERAGE DEPARTMENT
 735 RANDOLPH STREET
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WADETRIM

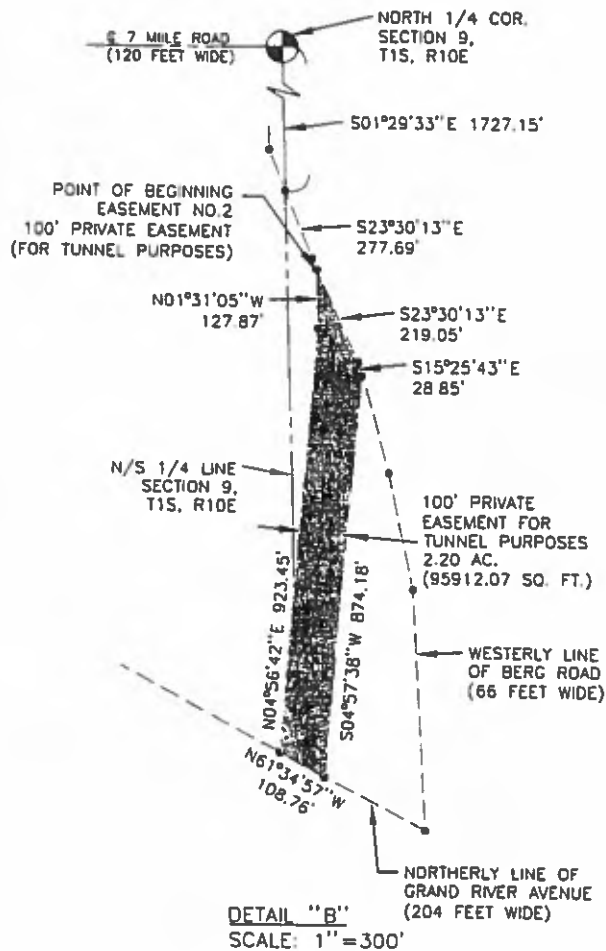
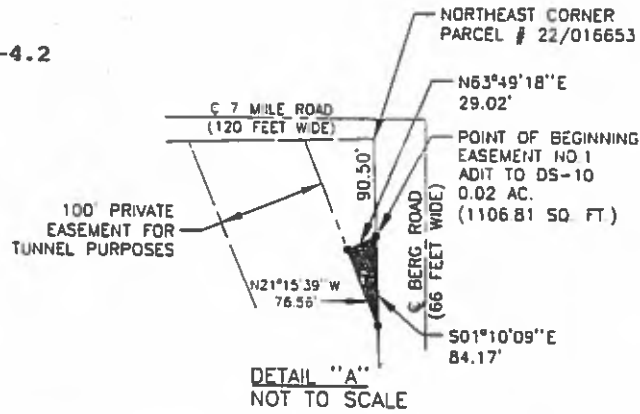
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EASEMENT

EXHIBIT B-4.2



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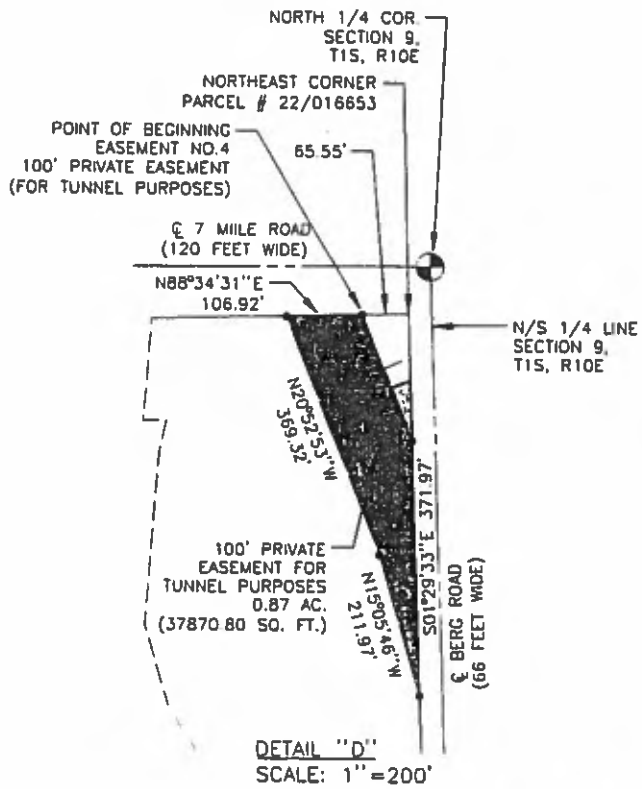
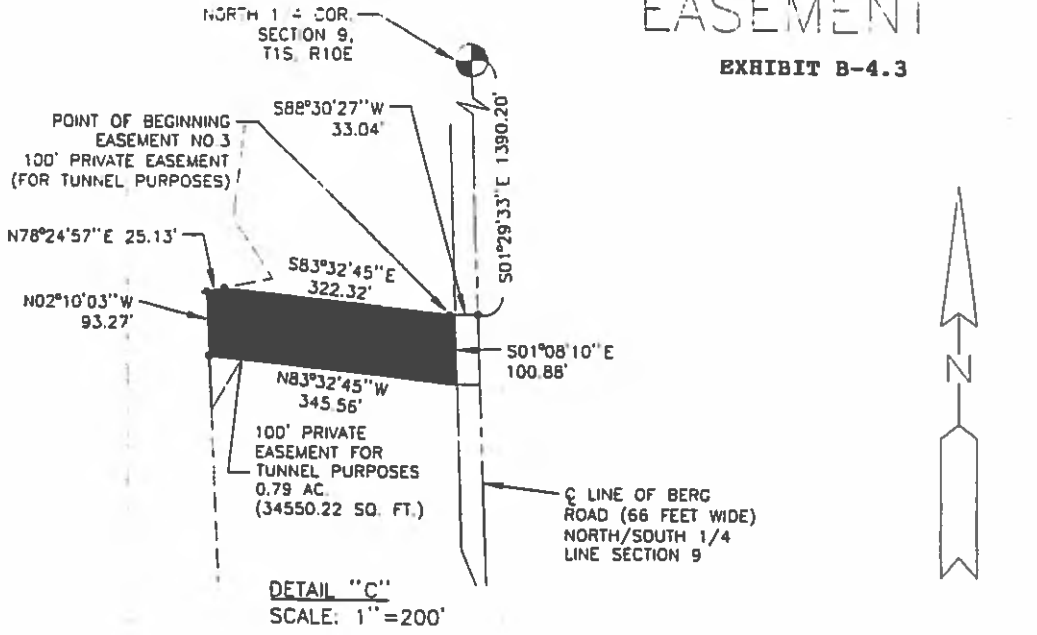
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EASEMENT

EXHIBIT B-4.3



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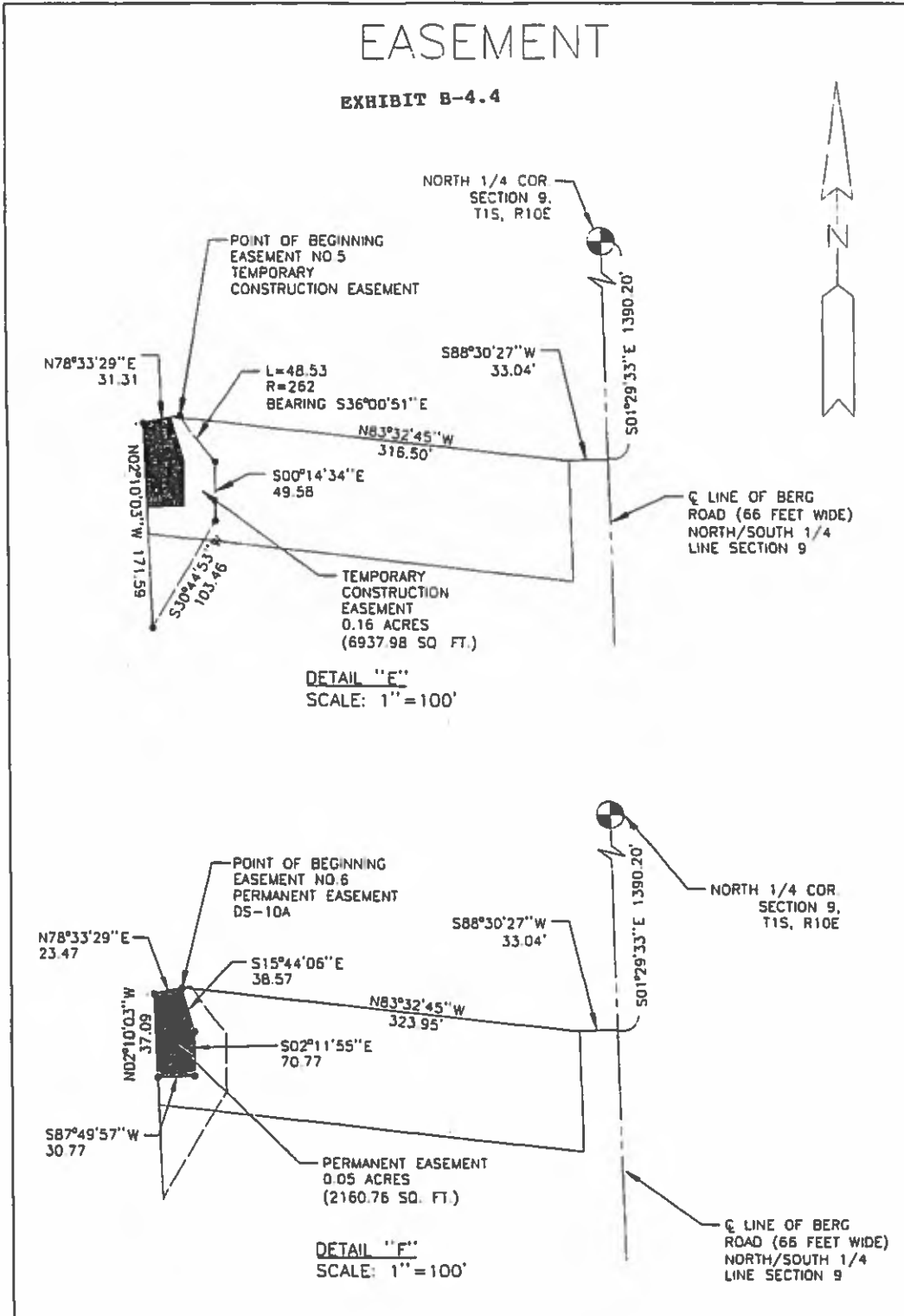
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BOOK #:	PAGE #:	
DR BY: NLG	COMP BY: NLG	
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EASEMENT

EXHIBIT B-4.4



FOR:
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EXHIBIT B-4.5

**EASEMENT NUMBER 1
(DETAIL A)**

COMMENCING AT THE NORTHEAST CORNER OF PARCEL NUMBER 22/016653, THENCE S01°10'09"E, ALONG THE WEST RIGHT OF WAY OF BERG ROAD, 90.50 FEET TO THE POINT OF BEGINNING, THENCE CONTINUING S01°10'09"E, ALONG SAID WESTERLY RIGHT OF WAY, 84.17 FEET, THENCE N21°15'39"W 76.56 FEET, THENCE N63°49'18"E 29.02 FEET TO THE POINT OF BEGINNING. CONTAINING 0.02 ACRES MORE OR LESS.

**EASEMENT NUMBER 2
(DETAIL B)**

COMMENCING AT THE NORTH 1/4 CORNER OF SECTION 9, T1S, R10E, THENCE S01°29'33"E, ALONG THE NORTH/SOUTH 1/4 LINE OF SAID SECTION 9, 1727.15 FEET, TO A POINT THAT INTERSECTS THE NORTH/SOUTH 1/4 LINE AT THE WESTERLY RIGHT OF WAY LINE OF BERG ROAD, THENCE S23°30'13"E, CONTINUING ALONG SAID RIGHT OF WAY LINE 277.69 FEET TO THE POINT OF BEGINNING, THENCE CONTINUING S23°30'13"E ALONG SAID RIGHT OF WAY 219.05 FEET, THENCE S15°25'43"E 28.85 FEET, THENCE S04°57'38"W 874.18 FEET, TO A POINT THAT INTERSECTS THE NORTH RIGHT OF WAY LINE OF GRAND RIVER AVENUE, THENCE N61°34'57"W, ALONG NORTH RIGHT OF WAY OF SAID GRAND RIVER AVENUE 108.76 FEET, THENCE N04°56'42"E 923.45 FEET, THENCE N01°31'05"W 127.87 FEET TO THE POINT OF BEGINNING. CONTAINING 2.20 ACRES MORE OR LESS.

**EASEMENT NUMBER 3
(DETAIL C)**

COMMENCING AT THE NORTH 1/4 CORNER OF SECTION 9, T1S, R10E, THENCE S01°29'33"E, ALONG THE NORTH/SOUTH 1/4 LINE OF SAID SECTION 9, 1390.20 FEET, THENCE S88°30'27"W 33.04 FEET TO A POINT THAT INTERSECTS THE WEST RIGHT OF WAY OF BERG ROAD, ALSO BEING THE POINT OF BEGINNING, THENCE S01°08'10"E ALONG SAID RIGHT OF WAY 100.88 FEET, THENCE N83°32'45"W 345.56 FEET, THENCE N02°10'03"W 93.27 FEET, THENCE N78°24'57"E 25.13 FEET, THENCE S83°32'45"E 322.32 FEET TO THE POINT OF BEGINNING. CONTAINING 0.79 ACRES MORE OR LESS.

**EASEMENT NUMBER 4
(DETAIL D)**

COMMENCING AT THE NORTHEAST CORNER OF PARCEL NUMBER 22/016653, THENCE S88°34'31"W, ALONG SOUTH RIGHT OF WAY OF 7 MILE ROAD 65.55 FEET TO THE POINT OF BEGINNING, THENCE S21°16'03"E 193.73 FEET, TO A POINT THAT INTERSECTS THE WESTERLY RIGHT OF WAY LINE OF BERG ROAD, THENCE S01°29'33"E ALONG SAID WESTERLY RIGHT OF WAY LINE 371.97 FEET, THENCE N15°05'46"W 211.97 FEET, THENCE N20°52'53"W 369.32 FEET TO A POINT THAT INTERSECTS THE SOUTH RIGHT OF WAY LINE OF SAID 7 MILE ROAD, THENCE N88°34'31"E ALONG SAID SOUTH RIGHT OF WAY LINE OF 7 MILE ROAD 106.92 FEET TO THE POINT OF BEGINNING. CONTAINING 0.87 ACRES MORE OR LESS.

FOR:
DETROIT WATER AND SEWERAGE DEPARTMENT
735 RANDOLPH STREET
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EXHIBIT B-4.6


EASEMENT NUMBER 5
(DETAIL E)

COMMENCING AT THE NORTH ¼ CORNER OF SECTION 9 T1S, R10E, THENCE S01°29'33"E ALONG THE N/S ¼ LINE OF SAID SECTION 1390.20 FEET, THENCE S88°30'27"W 33.04 FEET, THENCE N83°32'45"W 316.50 FEET TO THE POINT OF BEGINNING, THENCE ALONG A CURVE TO THE LEFT HAVING AN ARC LENGTH OF 48.53 FEET, A RADIUS OF 262.00 FEET AND A CHORD BEARING OF S36°00'51"E, THENCE S00°14'34"E 49.58 FEET, THENCE S30°44'53"W 103.46 FEET TO THE SOUTHEASTERLY PROPERTY CORNER TO PARCEL 22/120399-400, THENCE N02°10'03"W 171.59 FEET ALONG THE EASTERLY LINE OF SAID PARCEL, THENCE N78°33'29"E 31.31 FEET TO THE POINT OF BEGINNING. CONTAINING 0.16 ACRES MORE OR LESS.

EASEMENT NUMBER 6
(DETAIL F)

COMMENCING AT THE NORTH ¼ CORNER OF SECTION 9 T1S, R10E, THENCE S01°29'33"E ALONG THE N/S ¼ LINE OF SAID SECTION 1390.20 FEET, THENCE S88°30'27"W 33.04 FEET, THENCE N83°32'45"W 323.95 FEET TO THE POINT OF BEGINNING, THENCE S15°44'06"E 38.57 FEET, THENCE S02°11'55"E 70.77 FEET, THENCE S87°49'57"W 30.77 FEET TO A POINT THAT INTERSECTS THE EASTERLY LINE OF PARCEL 22/120399-400, THENCE N02°10'03"W 37.09 FEET ALONG SAID EASTERLY LINE OF PARCEL 22/120399-400, THENCE N78°33'29"E 23.47 FEET TO THE POINT OF BEGINNING. CONTAINING 0.05 ACRES MORE OR LESS.

FOR:
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SHEET:	6	OF 6

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PHASE I ENVIRONMENTAL ASSESSMENT (ESA) PROPERTY OWNER/OCCUPANT QUESTIONNAIRE

This questionnaire concerns the current and historical uses and conditions of the referenced property and will be included within the Phase I ESA report. Questionnaire answers should be based upon the owner/occupant's reasonable knowledge of current and historical use and activities at the property.

Instructions:

1. Fill in all blanks.
2. Indicate "NA" (not applicable), if appropriate.
3. Attach additional pages with your signature if additional space is required.

Property Name: Former Rogell Golf Course

Property Location: 18600 and 18601 Berg Road, Detroit

County: Wayne State: Michigan

Questionnaire Completed By/Title: MARTIN M. HARDY, CORPORATE SECRETARY

Company/ Phone Number: 313 543-6071

On Behalf Of (if applicable): GREATER GRACE TEMPLE

Year of Purchase/Lease (circle one): 2007

Time Period of Site Knowledge: 10 YEARS

Names/Phone Numbers of Former Owners/Occupants:

Owners: CITY OF DETROIT

Occupants: _____

Names/Phone Numbers of other persons who have knowledge of property history: N/A

PROPERTY DESCRIPTION AND USE

1. Provide a general description of the property:

- Undeveloped Vacant Wooded Buildings Other

2. Describe the structures present on the property (number, size, and construction date):

MAINTENANCE BUILDING AND CLUBHOUSE



3. Identify utilities available to the property (check box and indicate provider):

- Electric: _____
- Gas: _____
- Sanitary Sewer: _____
- Storm Sewer: _____
- Municipal Water: _____

4. Are there any easements at the property?:

- Yes No

If yes, where are the easements located?: _____

5. To the best of your knowledge, identify if the following were formerly (F) or are currently (C) present on the property. Select NA if not applicable to the property.

- | | | | |
|---|-----|------|--|
| F | C | NA ✓ | On-site water supply wells |
| F | C | NA ✓ | Septic fields, drain fields, or dry wells |
| F | C | NA ✓ | Abandoned wells |
| F | C ✓ | NA | Lagoons, settling ponds |
| F | C | NA ✓ | Monitoring wells |
| F | C | NA ✓ | Underground sumps, lines, basins, or tanks |
| F | C | NA ✓ | Aboveground storage tanks (ASTs) |
| F | C | NA ✓ | Transformers or capacitors |
| F | C | NA ✓ | Other PCB containing equipment |
| F | C | NA ✓ | Mines or pits |
| F | C | NA ✓ | Hidden chemical materials or wastes |
| F | C | NA ✓ | Dumps or landfills |
| F | C | NA ✓ | Oil or gas wells or test holes |
| F | C | NA ✓ | Unusual fill areas, such as foundry sand, etc. |
| F | C | NA ✓ | Barrel or drum storage areas |

6. What is the general use of property:

- Industrial Commercial Residential Other

7. What products/services are produced/provided at the property?: N/A

8. What type of on-site processes are used at the property?: N/A

9. What types of equipment are used at the property?: N/A

10. What raw materials are used at the property?: N/A



11. Are there any environmental permits (e.g. solid waste disposal, hazardous waste disposal, wastewater, NPDES, etc.) associated with the property?:
- Yes No

If yes, list the applicable permit(s): _____

PROPERTY AND ADJOINING PROPERTIES - CURRENT AND HISTORICAL USE

12. Are there any liquid or solid wastes generated at the property?
- Yes No Unknown

If yes, please list the monthly volume generated and explain disposal method: _____

13. Is the property or any adjoining property currently used for an industrial use?
- Yes No Unknown
- Property Adjoining

If yes, explain briefly: _____

14. Is the property or any adjoining property currently used as a gasoline station, vehicle repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?
- Yes No Unknown
- Property Adjoining

If yes, explain briefly: _____

Please complete the current land use table below:

	Name/Owner	Land Use
Property		
North adjoining properties		
South adjoining properties		
East adjoining properties		
West adjoining properties		

15. Has the property or any adjoining property been used for an industrial use in the past?
- Yes No Unknown
- Property Adjoining

If yes, explain briefly: _____



16. Has the property or any adjoining property historically been used as a gasoline station, vehicle repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?

- Yes No Unknown
Property Adjoining

If yes, explain briefly:

Please complete the historical land use table below:

Table with 4 columns: Previous use of Property, Owner, Use, Dates. Rows include: Previous use of properties to north, south, east, west.

CURRENT AND HISTORICAL PROPERTY CONDITIONS

17. Are there currently, or have there been previously, any damaged or discarded automotive or industrial batteries, pesticides, paints, or other chemicals (individual containers greater than 5 gallons or greater than 50 gallons total) stored on or used at the property or at the facility?

- Yes No Unknown

If yes, explain briefly:

18. Are there currently, or have there been previously, any industrial drums (typically 55-gallon) or sacks of chemicals stored on the property or at the facility?

- Yes No Unknown

If yes, describe the chemicals stored on the property (volume, contents and dates of storage): 2,000 GALLON HEATING OIL, 250 GALLON DIESEL FUEL, TWO 55 GALLON WASTE OIL

19. Have any hazardous substances, petroleum products, unidentified waste materials, tires, automotive or industrial batteries, or any other waste materials been dumped above grade, buried, and/or burned/incinerated on the property?

- Yes No Unknown

If yes, identify the location and date(s):



20. Are there currently, or have there been previously, any registered or unregistered storage tanks (aboveground or underground) located on the property?

- Yes No Unknown

If yes, identify the location, date(s) of use, and date(s) of removal (if applicable): TANKS REMOVED NOVEMBER 2007, EAST OF THE CLUBHOUSE

21. Are there currently, or have there been previously, any vent pipes, fill pipes protruding from the ground, areas of patched concrete or asphalt, or access ways indicating an underground storage tank on the property?

- Yes No Unknown

If yes, identify the location: THE AREA NEAR MAINTENANCE BLDG.

22. Are there transformers, capacitors, or hydraulic equipment on the property?

- Yes No Unknown

If yes, are there any records indicating the presence of PCBs?:

23. Is there currently, or has there been previously, any stained soil on the property?

- Yes No Unknown

If yes, identify the location of the stained soil and date(s) it was present on the property: NEAR MAINTENANCE BLDG. PRIOR TO NOVEMBER 2007

24. Has fill dirt been brought onto the property that is of unknown origin? Has fill dirt been brought onto the property that originated from a contaminated site?

- Yes No Unknown

If yes, identify the date and location of fill placement:

25. Are there currently, or have there been previously, any leaks, spills, or staining by substances other than water, or foul odors, associated with any flooring, drains, walls, ceilings, or exposed grounds on the property?

- Yes No Unknown

If yes, identify the location and dates: IMPACTED SOIL NEAR MAINTENANCE BLDG. PRIOR TO NOVEMBER 2007



26. Are there currently, or have there been previously, any pits, ponds, or lagoons associated with waste treatment or disposal located on the property?

- Yes No Unknown

If yes, identify the location and dates:

27. Excluding storm water and sanitary waste discharge into an existing storm/sanitary sewer, does the property discharge wastewater on or adjacent to the property?

- Yes No Unknown

If yes, describe the type of wastewater and identify discharge location:

28. If the property is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed applicable guidelines? Has the well been designated as contaminated by any government environmental/health agency?

- Yes No Unknown

If yes, identify the contaminants and dates of exceedances:

PREVIOUSLY IDENTIFIED ENVIRONMENTAL CONDITIONS

29. Have you been informed of the current or past existence of hazardous substances, petroleum products, or environmental violations with respect to the property or any facility located on the property?

- Yes No Unknown

If yes, briefly explain: MR. DOWELL & ASSOCIATES RESPONSE ACTIVELY DOCUMENTATION - DATED JANUARY 2008

30. Do you have knowledge of any environmental site assessment(s) of the property (e.g., Phase I ESA, Phase II ESA) that indicated / did not indicate the presence of hazardous substances or petroleum products on, or contamination of, the property?

- Yes No Unknown

If yes, briefly explain: MR. DOWELL & ASSOCIATES RESPONSE ACTIVELY DOCUMENTATION - DATED JANUARY 2008



31.

- a) If the property is in Michigan, has a Baseline Environmental Assessment (BEA) been prepared for the property? **OR**
- b) If the property is in Indiana, has a Comfort/Site Status Letter been prepared for the property? **OR**
- c) If the property is in Ohio, has a Covenant Not to Sue been prepared for the property?

Yes No Unknown

If yes, briefly explain: McDOWELL & ASSOCIATES RESPONSE
ACTIVITY DOCUMENTATION - DATED JANUARY 2008
2008

32. Are you aware of the existence of environmental reports and permits; UST, AST, and underground injection system registrations; material safety data sheets; community right-to-know plans; safety and spill prevention plans; hydrogeologic reports; notices of past or current violations of environmental laws; hazardous waste generator notices or reports; geotechnical studies; risk assessments; and, recorded activity and use limitations.

Yes No Unknown

If yes, briefly explain: McDOWELL & ASSOCIATES RESPONSE
ACTIVITY DOCUMENTATION - DATED JANUARY 2008

33. Do you know of any pending, threatened, or past lawsuits or administrative proceedings concerning the release of any hazardous substances or petroleum products involving the property or any facility located on the property?

Yes No Unknown

If yes, briefly explain: _____

34. Do you have any knowledge of environmental liens or government notification relating to past or recurrent violations of environmental laws with respect to the property or any facility located on the property?

Yes No Unknown

If yes, briefly explain: _____

35. Are you aware of any activity and land use limitations (engineering controls or institutional controls/land use restrictions) that are in place at the property and/or have been filed or recorded in a registry under federal, tribal, state, or local law?

Yes No Unknown

If yes, identify limitation/restriction: _____



SME Project No. 077832.00.001.003

MARTIN H. HARDY
Printed Name

Martin H. Hardy
Signature

GREATER GRADE TEMPLE
Company

CORPORATE SECRETARY
Title

12/10/17
Date

APPENDIX D
REGULATORY RECORDS DOCUMENTATION

DRAFT

Rogell Property
18600 Berg Road
Detroit, MI 48219

Inquiry Number: 5102888.2s
November 10, 2017

The EDR Radius Map™ Report with GeoCheck®



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	57
Government Records Searched/Data Currency Tracking	GR-1
 <u>GEOCHECK ADDENDUM</u>	
Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-11
Physical Setting Source Map Findings	A-13
Physical Setting Source Records Searched	PSGR-1

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 Please contact EDR at 1-800-352-0050
 with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

18600 BERG ROAD
DETROIT, MI 48219

COORDINATES

Latitude (North): 42.4267890 - 42° 25' 36.44"
Longitude (West): 83.2633010 - 83° 15' 47.88"
Universal Transverse Mercator: Zone 17
UTM X (Meters): 313806.9
UTM Y (Meters): 4699431.5
Elevation: 622 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 6067816 REDFORD, MI
Version Date: 2014

East Map: 6067818 ROYAL OAK, MI
Version Date: 2014

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20140628
Source: USDA

MAPPED SITES SUMMARY

Target Property Address:
 18600 BERG ROAD
 DETROIT, MI 48219

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	ROGELL GOLF COURSE	18690 BERG RD	LUST, UST, WDS	Higher	1 ft.
A2	ROGELL GOLF COURSE	18690 BERG RD	RGA LUST	Higher	1 ft.
A3	CITY OF DETROIT	18690 BERG RD	RCRA NonGen / NLR, FINDS, ECHO	Higher	1 ft.
4	SEVEN MILE SITE	22500 SEVEN MILE	UST	Higher	22, 0.004, NNW
B5	LIVERNOS LOUIS J	22530 W 7 MILE RD	EDR Hist Auto	Higher	41, 0.008, NNW
C6	JEFFRIES RAY MARATHO	22000 W 7 MILE	EDR Hist Auto	Higher	47, 0.009, NE
C7	CONSOLIDATED UNIT #2	22000 W 7 MILE & LAN	LUST, UST	Higher	52, 0.010, NE
8	UPCHURCH OTIS	23350 GRAND RIVER AV	EDR Hist Auto	Lower	53, 0.010, SW
D9	HOUSTON CLEANERS	14108 HOUSTON WHITTL	EDR Hist Cleaner	Higher	66, 0.013, NE
E10	STUMPF JACOB C	22684 W SEVEN MILE R	EDR Hist Auto	Higher	66, 0.013, NW
B11	BILGER EARL E	22550 W 7 MILE RD	EDR Hist Auto	Higher	69, 0.013, NW
D12	FRIENDLY LAUNDROMAT	22150 W SEVEN MILE R	EDR Hist Cleaner	Higher	75, 0.014, NE
D13	EDGEWATER CLEANERS	22144 W SEVEN MILE R	EDR Hist Cleaner	Higher	76, 0.014, NE
E14	HYDRO PRO INC	22680 W 7 MILE RD	RCRA NonGen / NLR	Higher	83, 0.016, NW
C15	PALLER FREDK	19101 LAHSER AVE	EDR Hist Auto	Higher	91, 0.017, NE
C16	STROHMER GULF SERVIC	22100 W SEVEN MILE R	EDR Hist Auto	Higher	153, 0.029, NE
F17	WHITEFOOT THOS	19102 LAHSER AVE	EDR Hist Auto	Higher	186, 0.035, NE
F18	WHITEFOOT THOS	19100 LAHSER AVE	EDR Hist Auto	Higher	236, 0.045, NE
G19	DETROIT SERVICE LEAR	21755 W 7 MILE RD	RCRA-CESQG	Higher	262, 0.050, ENE
H20	GREATER GRACE CHURCH	23500 W 7 MILE RD	RCRA NonGen / NLR	Higher	301, 0.057, WNW
G21	FORMER SHELL STATION	21640 W 7 MILE RD	AUL, BEA	Higher	399, 0.076, ENE
G22	SEVEN MILE LAHSER SH	21640 W SEVEN MILE R	EDR Hist Auto	Higher	399, 0.076, ENE
G23	SHELL STATION (FORME	21640 WEST 7 MILE	LUST, INVENTORY	Higher	399, 0.076, ENE
24	GRAND LAWN CEMETERY	23501 GRAND RIVER AV	UST	Higher	429, 0.081, SW
25	FRENCH S COLLISION	18421 LAHSER AVE	EDR Hist Auto	Higher	454, 0.086, SE
H26	ATTERSON GORDON A	23375 W SEVEN MILE R	EDR Hist Auto	Higher	485, 0.092, WNW
27	(FORMER) BOWLERAMA	21630 WEST SEVEN MIL	BEA	Higher	497, 0.094, ENE
I28	CURRIE S COLLISION S	22555 GRAND RIVER	EDR Hist Auto	Higher	578, 0.109, South
I29	TOTAL AUTOMOTIVE ENG	22541 GRAND RIVER AV	RCRA NonGen / NLR, FINDS, ECHO	Higher	717, 0.136, South
30	7 MILE TELEGRAPH MIN	23540 WEST 7 MILE RD	LUST, UST, Financial Assurance	Higher	810, 0.153, WNW
J31	US POSTAL SERVICE	22503 GRAND RIVER	RCRA NonGen / NLR, FINDS, ECHO	Higher	873, 0.165, South
K32	ZACK FUELS	23600 GRAND RIVER	INVENTORY	Higher	983, 0.186, WSW
K33	RITA K. INC. PROPERT	23600 GRAND RIVER AV	INVENTORY	Higher	983, 0.186, WSW
K34	ZACK FUELS	23600 GRAND RIVER	LUST, UST, BEA, Financial Assurance, WDS	Higher	984, 0.186, WSW
K35	RITA K INC	23600 GRAND RIVER AV	RCRA NonGen / NLR	Higher	984, 0.186, WSW
J36	SUNOCO INC	22471 GRAND RIVER AV	RCRA NonGen / NLR, FINDS, ECHO	Higher	1004, 0.190, South
J37	KLASS WERKS COLLISIO	22435 GRAND RIVER AV	RCRA NonGen / NLR, FINDS, ECHO	Higher	1114, 0.211, South
K38	CRAGGS CABINETRY (FO	23660 GRAND RIVER	INVENTORY	Higher	1153, 0.218, WSW
39	LARNED ELEM SCHOOL	23700 CLARITA ST	RCRA-CESQG	Higher	1299, 0.246, West

MAPPED SITES SUMMARY

Target Property Address:
 18600 BERG ROAD
 DETROIT, MI 48219

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
40	COOLEY STREET MERCUR	17534 COOLEY STREET	SEMS	Higher	1867, 0.354, SSE
L41		22222 W. GRAND RIVER	INVENTORY	Higher	2039, 0.386, SSE
L42		22222 W. GRAND RIVER	BEA	Higher	2039, 0.386, SSE
43	TEL-GRAND M/C	18270 TELEGRAPH RD	LUST, UST, AST, WDS	Higher	2102, 0.398, WSW
M44	JAX KAR WASH	23831 GRAND RIVER AV	AUL, BEA, WDS	Higher	2113, 0.400, WSW
M45	JAX CAR WASH INC	23831 GRAND RIVER AV	LUST, UST, INVENTORY	Higher	2113, 0.400, WSW
N46	SERVICE STATION #583	19100 TELEGRAPH ROAD	AUL, INVENTORY, BEA, WDS	Higher	2132, 0.404, WNW
N47	BP/AMOCO GAS STATION	19100 TELEGRAPH ROAD	INVENTORY	Higher	2132, 0.404, WNW
48	DETROIT PUBLIC SCHOO	18100 BENTLER ST	INVENTORY, WDS	Higher	2138, 0.405, SE
49	MARATHON GAS STATION	19025 TELEGRAPH RD	LUST, UST, INVENTORY, BEA, Financial Assurance,...	Higher	2364, 0.448, West
O50	UNICLEAN DRY CLEANER	19111 TELEGRAPH ROAD	AUL	Higher	2412, 0.457, WNW
O51	UNI CLEAN DRY CLEANE	19145 TELEGRAPH ROAD	INVENTORY	Higher	2423, 0.459, WNW
52	FARMINGTON HILLS RES	27831 ORCHARD LAKE R	INVENTORY	Higher	2603, 0.493, SSE
53	MNK SERVICES	20545 W 7 MILE RD	BROWNFIELDS, PART 201	Higher	3620, 0.686, East

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

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

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE..... Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

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

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-SQG..... RCRA - Small Quantity Generators

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System
US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

EXECUTIVE SUMMARY

State- and tribal - equivalent CERCLIS

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

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

SWF/LF..... Solid Waste Facilities Database

State and tribal leaking storage tank lists

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing

AST..... Aboveground Tanks

INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS..... Brownfields and UST Site Database

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

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

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY..... Recycling Facilities

HIST LF..... Inactive Solid Waste Facilities

INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations

ODI..... Open Dump Inventory

IHS OPEN DUMPS..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register

CDL..... Clandestine Drug Lab Listing

DEL PART 201..... Delisted List of Contaminated Sites

US CDL..... National Clandestine Laboratory Register

Local Land Records

LIENS..... Lien List

LIENS 2..... CERCLA Lien Information

EXECUTIVE SUMMARY

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System
SPILLS..... Pollution Emergency Alerting System

Other Ascertainable Records

FUDS..... Formerly Used Defense Sites
DOD..... Department of Defense Sites
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR..... Financial Assurance Information
EPA WATCH LIST..... EPA WATCH LIST
2020 COR ACTION..... 2020 Corrective Action Program List
TSCA..... Toxic Substances Control Act
TRIS..... Toxic Chemical Release Inventory System
SSTS..... Section 7 Tracking Systems
ROD..... Records Of Decision
RMP..... Risk Management Plans
RAATS..... RCRA Administrative Action Tracking System
PRP..... Potentially Responsible Parties
PADS..... PCB Activity Database System
ICIS..... Integrated Compliance Information System
FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS..... Material Licensing Tracking System
COAL ASH DOE..... Steam-Electric Plant Operation Data
COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER..... PCB Transformer Registration Database
RADINFO..... Radiation Information Database
HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS..... Incident and Accident Data
CONSENT..... Superfund (CERCLA) Consent Decrees
INDIAN RESERV..... Indian Reservations
FUSRAP..... Formerly Utilized Sites Remedial Action Program
UMTRA..... Uranium Mill Tailings Sites
LEAD SMELTERS..... Lead Smelter Sites
US AIRS..... Aerometric Information Retrieval System Facility Subsystem
US MINES..... Mines Master Index File
ABANDONED MINES..... Abandoned Mines
DOCKET HWC..... Hazardous Waste Compliance Docket Listing
UXO..... Unexploded Ordnance Sites
FUELS PROGRAM..... EPA Fuels Program Registered Listing
AIRS..... Permit and Emissions Inventory Data
ASBESTOS..... ASBESTOS
COAL ASH..... Coal Ash Disposal Sites
DRYCLEANERS..... Drycleaning Establishments
Financial Assurance..... Financial Assurance Information Listing
LEAD..... Lead Safe Housing Registry
NPDES..... List of Active NPDES Permits
UIC..... Underground Injection Wells Database

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP..... EDR Proprietary Manufactured Gas Plants

EXECUTIVE SUMMARY

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA PART 201..... Recovered Government Archive State Hazardous Waste Facilities List
RGA LF..... Recovered Government Archive Solid Waste Facilities List

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property. Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal CERCLIS list

SEMS: SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the SEMS list, as provided by EDR, and dated 07/11/2017 has revealed that there is 1 SEMS site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
COOLEY STREET MERCUR	17534 COOLEY STREET	SSE 1/4 - 1/2 (0.354 mi.)	40	42

Federal RCRA generators list

RCRA-CESQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

A review of the RCRA-CESQG list, as provided by EDR, and dated 09/13/2017 has revealed that there are

EXECUTIVE SUMMARY

2 RCRA-CESQG sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
DETROIT SERVICE LEAR	21755 W 7 MILE RD	ENE 0 - 1/8 (0.050 mi.)	G19	18
LARNED ELEM SCHOOL	23700 CLARITA ST	W 1/8 - 1/4 (0.246 mi.)	39	40

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Environmental Quality's Leaking Underground Storage Tank (LUST) Database.

A review of the LUST list, as provided by EDR, and dated 06/30/2017 has revealed that there are 8 LUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ROGELL GOLF COURSE Release Status: Closed Substance Release: Unknown,Unknown Facility Id: 00019067	18690 BERG RD	0 - 1/8 (0.000 mi.)	A1	8
CONSOLIDATED UNIT #2 Release Status: Closed Substance Release: Unknown Facility Id: 00017455	22000 W 7 MILE & LAN	NE 0 - 1/8 (0.010 mi.)	C7	12
SHELL STATION (FORME Release Status: Open Substance Release: Unknown Facility Id: 50002286	21640 WEST 7 MILE	ENE 0 - 1/8 (0.076 mi.)	G23	22
7 MILE TELEGRAPH MIN Release Status: Closed Substance Release: Unknown Facility Id: 00011914	23540 WEST 7 MILE RD	WNW 1/8 - 1/4 (0.153 mi.)	30	27
ZACK FUELS Release Status: Open Substance Release: Gasoline,Gasoline,Diesel Facility Id: 00000822	23600 GRAND RIVER	WSW 1/8 - 1/4 (0.186 mi.)	K34	32
TEL-GRAND M/C Release Status: Closed Substance Release: Gasoline Facility Id: 00005092	18270 TELEGRAPH RD	WSW 1/4 - 1/2 (0.398 mi.)	43	42
JAX CAR WASH INC Release Status: Closed Substance Release: Gasoline Facility Id: 00001956	23831 GRAND RIVER AV	WSW 1/4 - 1/2 (0.400 mi.)	M45	46
MARATHON GAS STATION Release Status: Open Release Status: Closed Substance Release: Diesel,Gasoline,Gasoline,Gasoline Facility Id: 00018194	19025 TELEGRAPH RD	W 1/4 - 1/2 (0.448 mi.)	49	50

EXECUTIVE SUMMARY

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Quality's Michigan UST database.

A review of the UST list, as provided by EDR, has revealed that there are 6 UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ROGELL GOLF COURSE Database: UST, Date of Government Version: 10/21/2016 Tank Status: Removed from Ground Facility Type: CLOSED Facility Id: 00019067	18690 BERG RD	0 - 1/8 (0.000 mi.)	A1	8
SEVEN MILE SITE Database: UST, Date of Government Version: 10/21/2016 Tank Status: Removed from Ground Facility Type: CLOSED Facility Id: 00039262	22500 SEVEN MILE	NNW 0 - 1/8 (0.004 mi.)	4	11
CONSOLIDATED UNIT #2 Database: UST, Date of Government Version: 10/21/2016 Tank Status: Removed from Ground Facility Type: CLOSED Facility Id: 00017455	22000 W 7 MILE & LAN	NE 0 - 1/8 (0.010 mi.)	C7	12
GRAND LAWN CEMETERY Database: UST, Date of Government Version: 10/21/2016 Tank Status: Removed from Ground Facility Type: CLOSED Facility Id: 00036840	23501 GRAND RIVER AV	SW 0 - 1/8 (0.081 mi.)	24	23
7 MILE TELEGRAPH MIN Database: UST, Date of Government Version: 10/21/2016 Tank Status: Removed from Ground Tank Status: Currently In Use Facility Type: ACTIVE Facility Id: 00011914	23540 WEST 7 MILE RD	WNW 1/8 - 1/4 (0.153 mi.)	30	27
ZACK FUELS Database: UST, Date of Government Version: 10/21/2016 Tank Status: Removed from Ground Tank Status: Currently In Use Facility Type: ACTIVE Facility Id: 00000822	23600 GRAND RIVER	WSW 1/8 - 1/4 (0.186 mi.)	K34	32

State and tribal institutional control / engineering control registries

AUL: A listing of sites with institutional and/or engineering controls in place.

A review of the AUL list, as provided by EDR, and dated 08/25/2017 has revealed that there are 4 AUL sites within approximately 0.5 miles of the target property.

EXECUTIVE SUMMARY

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
FORMER SHELL STATION Facility ID: 50002286	21640 W 7 MILE RD	ENE 0 - 1/8 (0.076 mi.)	G21	21
JAX KAR WASH Facility ID: 00001956	23831 GRAND RIVER AV	WSW 1/4 - 1/2 (0.400 mi.)	M44	45
SERVICE STATION #583 Facility ID: 00019785	19100 TELEGRAPH ROAD	WNW 1/4 - 1/2 (0.404 mi.)	N46	48
UNICLEAN DRY CLEANER	19111 TELEGRAPH ROAD	WNW 1/4 - 1/2 (0.457 mi.)	O50	54

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

PART 201: A Part 201 Listed site is a location that has been evaluated and scored by the DEQ using the Part 201 scoring model. The location is or includes a "facility" as defined by Part 201, where there has been a release of a hazardous substance(s) in excess of the Part 201 residential criteria, and/or where corrective actions have not been completed under Part 201 to meet the applicable cleanup criteria for unrestricted residential use. The Part 201 List does not include all of the sites of contamination that are subject to regulation under Part 201 because owners are not required to inform the DEQ about the sites and can pursue cleanup independently. Sites of environmental contamination that are not known to DEQ are not on the list, nor are sites with releases that resulted in low environmental impact.

A review of the PART 201 list, as provided by EDR, and dated 10/01/2013 has revealed that there is 1 PART 201 site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
MNK SERVICES Facility Status: See Leaking Underground Storage Tank Site Database Facility ID: 82001839	20545 W 7 MILE RD	E 1/2 - 1 (0.686 mi.)	53	55

INVENTORY: The Inventory of Facilities has three data sources: Facilities under Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA) identified through state funded or private party response activities (Projects); Facilities under Part 213, Leaking Underground Storage Tanks of the NREPA; and Facilities identified through submittals of Baseline Environmental Assessments (BEA) submitted pursuant to Part 201 or Part 213 of the NREPA. The Part 201 Projects Inventory does not include all of the facilities that are subject to regulation under Part 201 because owners are not required to inform the Department of Environmental Quality (DEQ) about the facilities and can pursue cleanup independently. Facilities that are not known to DEQ are not on the Inventory, nor are locations with releases that resulted in low environmental impact. Part 213 facilities listed here may have more than one release; a list of releases for which corrective actions have been completed and list of releases for which corrective action has not been completed is located on the Leaking Underground Storage Tanks Site Search webpage. The DEQ may or may not have reviewed and concurred with the conclusion that the corrective actions described in a closure report meets criteria. A BEA is a document that new or prospective property owners/operations disclose to the DEQ identifying the property as a facility pursuant to Part 201 and Part 213. The Inventory of BEA Facilities overlaps in part with the Part 201 Projects facilities and Part 213 facilities. There may be more than one BEA for each facility.

A review of the INVENTORY list, as provided by EDR, and dated 07/25/2017 has revealed that there are

EXECUTIVE SUMMARY

12 INVENTORY sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SHELL STATION (FORME) Facility ID: 50002286	21640 WEST 7 MILE	ENE 0 - 1/8 (0.076 mi.)	G23	22
ZACK FUELS Facility ID: 822	23600 GRAND RIVER	WSW 1/8 - 1/4 (0.186 mi.)	K32	32
RITA K. INC. PROPERT Facility ID: 82002821	23600 GRAND RIVER AV	WSW 1/8 - 1/4 (0.186 mi.)	K33	32
CRAGGS CABINETRY (FO Facility ID: 82002562	23660 GRAND RIVER	WSW 1/8 - 1/4 (0.218 mi.)	K38	40
Not reported	22222 W. GRAND RIVER	SSE 1/4 - 1/2 (0.386 mi.)	L41	42
JAX CAR WASH INC Facility ID: 1956	23831 GRAND RIVER AV	WSW 1/4 - 1/2 (0.400 mi.)	M45	46
SERVICE STATION #583 Facility ID: 82002798	19100 TELEGRAPH ROAD	WNW 1/4 - 1/2 (0.404 mi.)	N46	48
BP/AMOCO GAS STATION Facility ID: 82002798	19100 TELEGRAPH ROAD	WNW 1/4 - 1/2 (0.404 mi.)	N47	49
DETROIT PUBLIC SCHOO	18100 BENTLER ST	SE 1/4 - 1/2 (0.405 mi.)	48	49
MARATHON GAS STATION Facility ID: 18194	19025 TELEGRAPH RD	W 1/4 - 1/2 (0.448 mi.)	49	50
UNI CLEAN DRY CLEANE Facility ID: 82002838	19145 TELEGRAPH ROAD	WNW 1/4 - 1/2 (0.459 mi.)	O51	55
FARMINGTON HILLS RES	27831 ORCHARD LAKE R	SSE 1/4 - 1/2 (0.493 mi.)	52	55

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 09/13/2017 has revealed that there are 8 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CITY OF DETROIT	18690 BERG RD	0 - 1/8 (0.000 mi.)	A3	9
HYDRO PRO INC	22680 W 7 MILE RD	NW 0 - 1/8 (0.016 mi.)	E14	16
GREATER GRACE CHURCH	23500 W 7 MILE RD	WNW 0 - 1/8 (0.057 mi.)	H20	19
TOTAL AUTOMOTIVE ENG	22541 GRAND RIVER AV	S 1/8 - 1/4 (0.136 mi.)	I29	25
US POSTAL SERVICE	22503 GRAND RIVER	S 1/8 - 1/4 (0.165 mi.)	J31	30
RITA K INC	23600 GRAND RIVER AV	WSW 1/8 - 1/4 (0.186 mi.)	K35	35
SUNOCO INC	22471 GRAND RIVER AV	S 1/8 - 1/4 (0.190 mi.)	J36	36
KLASS WERKS COLLISIO	22435 GRAND RIVER AV	S 1/8 - 1/4 (0.211 mi.)	J37	38

EXECUTIVE SUMMARY

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 07/23/2017 has revealed that there is 1 FINDS site within approximately 0.001 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CITY OF DETROIT	18690 BERG RD	0 - 1/8 (0.000 mi.)	A3	9

ECHO: ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

A review of the ECHO list, as provided by EDR, and dated 09/02/2017 has revealed that there is 1 ECHO site within approximately 0.001 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CITY OF DETROIT	18690 BERG RD	0 - 1/8 (0.000 mi.)	A3	9

BEA: A BEA is a document that new or prospective property owners/operations disclose to the DEQ identifying the property as a facility pursuant to Part 201 and Part 213. The Inventory of BEA Facilities overlaps in part with the Part 201 Projects facilities and Part 213 facilities. There may be more than one BEA for each facility.

A review of the BEA list, as provided by EDR, and dated 08/21/2013 has revealed that there are 7 BEA sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
FORMER SHELL STATION	21640 W 7 MILE RD	ENE 0 - 1/8 (0.076 mi.)	G21	21
(FORMER) BOWLERAMA	21630 WEST SEVEN MIL	ENE 0 - 1/8 (0.094 mi.)	27	25
ZACK FUELS	23600 GRAND RIVER	WSW 1/8 - 1/4 (0.186 mi.)	K34	32
Not reported	22222 W. GRAND RIVER	SSE 1/4 - 1/2 (0.386 mi.)	L42	42
JAX KAR WASH	23831 GRAND RIVER AV	WSW 1/4 - 1/2 (0.400 mi.)	M44	45
SERVICE STATION #583	19100 TELEGRAPH ROAD	WNW 1/4 - 1/2 (0.404 mi.)	N46	48
MARATHON GAS STATION	19025 TELEGRAPH RD	W 1/4 - 1/2 (0.448 mi.)	49	50

WDS: The Waste Data System (WDS) tracks activities at facilities regulated by the Solid Waste, Scrap Tire, Hazardous Waste, and Liquid Industrial Waste programs.

A review of the WDS list, as provided by EDR, and dated 02/01/2017 has revealed that there is 1 WDS site within approximately 0.001 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ROGELL GOLF COURSE	18690 BERG RD	0 - 1/8 (0.000 mi.)	A1	8
WMD Id: 390847				

EXECUTIVE SUMMARY

Site Id: MI0000260315

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 13 EDR Hist Auto sites within approximately 0.125 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
LIVERNOS LOUIS J	22530 W 7 MILE RD	NNW 0 - 1/8 (0.008 mi.)	B5	12
JEFFRIES RAY MARATHO	22000 W 7 MILE	NE 0 - 1/8 (0.009 mi.)	C6	12
STUMPF JACOB C	22684 W SEVEN MILE R	NW 0 - 1/8 (0.013 mi.)	E10	15
BILGER EARL E	22550 W 7 MILE RD	NW 0 - 1/8 (0.013 mi.)	B11	15
PALLER FREDK	19101 LAHSER AVE	NE 0 - 1/8 (0.017 mi.)	C15	17
STROHMER GULF SERVIC	22100 W SEVEN MILE R	NE 0 - 1/8 (0.029 mi.)	C16	17
WHITEFOOT THOS	19102 LAHSER AVE	NE 0 - 1/8 (0.035 mi.)	F17	17
WHITEFOOT THOS	19100 LAHSER AVE	NE 0 - 1/8 (0.045 mi.)	F18	18
SEVEN MILE LAHSER SH	21640 W SEVEN MILE R	ENE 0 - 1/8 (0.076 mi.)	G22	22
FRENCH S COLLISION	18421 LAHSER AVE	SE 0 - 1/8 (0.086 mi.)	25	24
ATTERSON GORDON A	23375 W SEVEN MILE R	WNW 0 - 1/8 (0.092 mi.)	H26	24
CURRIE S COLLISION S	22555 GRAND RIVER	S 0 - 1/8 (0.109 mi.)	I28	25
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
UPCHURCH OTIS	23350 GRAND RIVER AV	SW 0 - 1/8 (0.010 mi.)	8	14

EDR Hist Cleaner: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there are 3 EDR Hist Cleaner sites within approximately 0.125 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
HOUSTON CLEANERS	14108 HOUSTON WHITTL	NE 0 - 1/8 (0.013 mi.)	D9	14
FRIENDLY LAUNDROMAT	22150 W SEVEN MILE R	NE 0 - 1/8 (0.014 mi.)	D12	15

EXECUTIVE SUMMARY

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
EDGEWATER CLEANERS	22144 W SEVEN MILE R	NE 0 - 1/8 (0.014 mi.)	D13	15

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LUST: The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

A review of the RGA LUST list, as provided by EDR, has revealed that there is 1 RGA LUST site within approximately 0.001 miles of the target property.

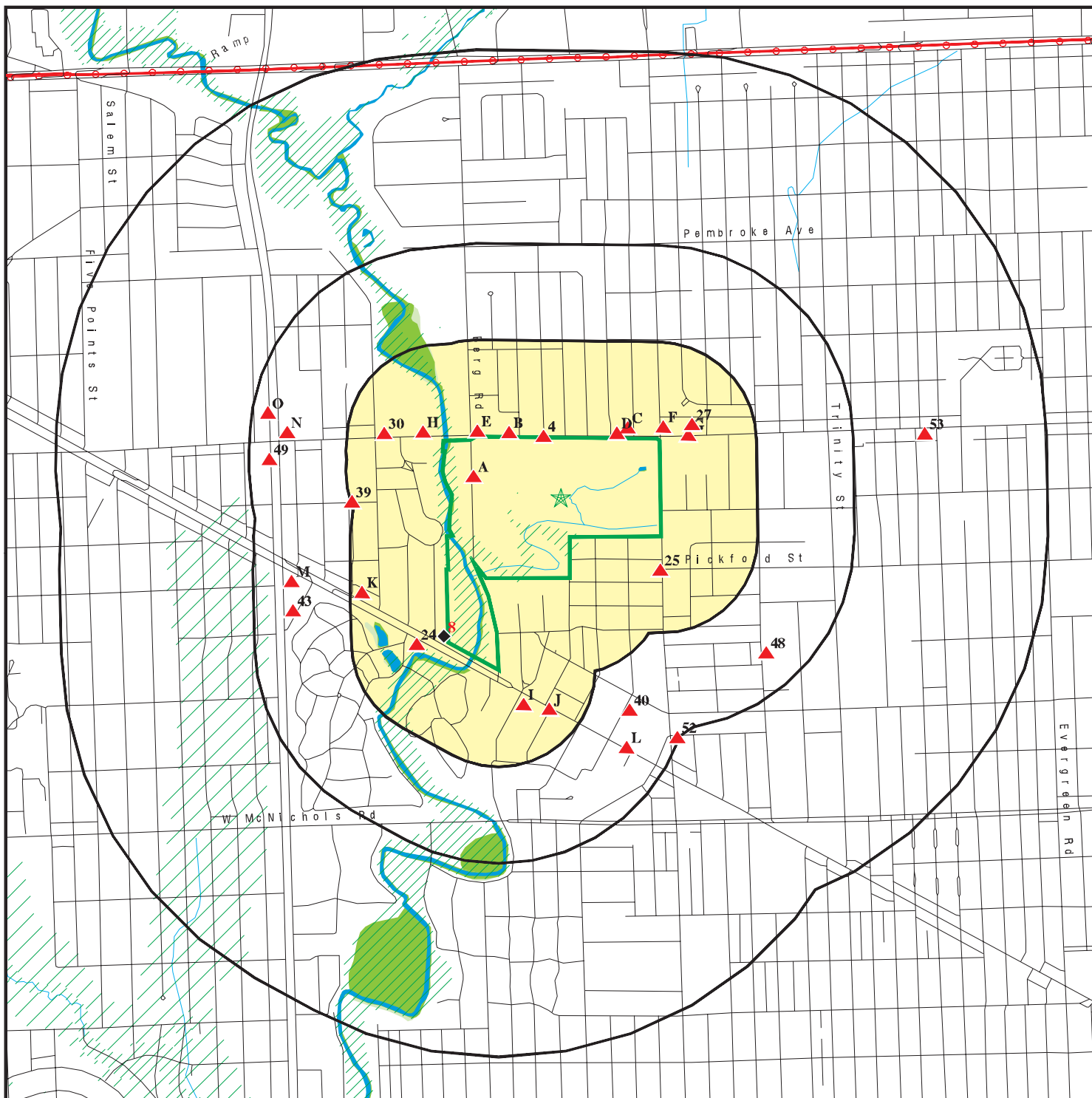
<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ROGELL GOLF COURSE Facility ID: 00019067 Facility ID: 19067 Facility ID: 0-019067	18690 BERG RD	0 - 1/8 (0.000 mi.)	A2	9

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 2 records.

<u>Site Name</u>	<u>Database(s)</u>
ALLA BP INC	LUST, UST, INVENTORY, Financial Assurance
FONS J & CO	SEMS-ARCHIVE

OVERVIEW MAP - 5102888.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

0 1/4 1/2 1 Miles

Indian Reservations BIA

Upgradient Area

County Boundary

Power transmission lines

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Rogell Property
 ADDRESS: 18600 Berg Road
 Detroit MI 48219
 LAT/LONG: 42.426789 / 83.263301

CLIENT: Soil & Materials Engineers Inc
 CONTACT: Matt Vander Eide
 INQUIRY #: 5102888.2s
 DATE: November 10, 2017 7:45 am

DETAIL MAP - 5102888.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites

- Indian Reservations BIA
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Rogell Property
 ADDRESS: 18600 Berg Road
 Detroit MI 48219
 LAT/LONG: 42.426789 / 83.263301

CLIENT: Soil & Materials Engineers Inc
 CONTACT: Matt Vander Eide
 INQUIRY #: 5102888.2s
 DATE: November 10, 2017 7:46 am

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	0.001		0	NR	NR	NR	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	1	NR	NR	1
<i>Federal CERCLIS NFRAP site list</i>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		1	1	NR	NR	NR	2
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	0.001		0	NR	NR	NR	NR	0
<i>State- and tribal - equivalent CERCLIS</i>								
SHWS	1.000		0	0	0	0	NR	0
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF	0.500		0	0	0	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
LUST	0.500		3	2	3	NR	NR	8
INDIAN LUST	0.500		0	0	0	NR	NR	0
<i>State and tribal registered storage tank lists</i>								
FEMA UST	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST	0.250		4	2	NR	NR	NR	6
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
AUL	0.500		1	0	3	NR	NR	4
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
SWRCY	0.500		0	0	0	NR	NR	0
HIST LF	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
PART 201 INVENTORY	1.000		0	0	0	1	NR	1
CDL	0.500		1	3	8	NR	NR	12
DEL PART 201	0.001		0	NR	NR	NR	NR	0
US CDL	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
SPILLS	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		3	5	NR	NR	NR	8
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	0.001		0	NR	NR	NR	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.001		0	NR	NR	NR	NR	0
FINDS	0.001		1	NR	NR	NR	NR	1
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		1	NR	NR	NR	NR	1
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	0.001		0	NR	NR	NR	NR	0
ASBESTOS	TP		NR	NR	NR	NR	NR	0
BEA	0.500		2	1	4	NR	NR	7
COAL ASH	0.500		0	0	0	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
LEAD	0.001		0	NR	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
WDS	0.001		1	NR	NR	NR	NR	1

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		13	NR	NR	NR	NR	13
EDR Hist Cleaner	0.125		3	NR	NR	NR	NR	3

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<u>EDR RECOVERED GOVERNMENT ARCHIVES</u>								
<i>Exclusive Recovered Govt. Archives</i>								
RGA PART 201	0.001		0	NR	NR	NR	NR	0
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		1	NR	NR	NR	NR	1
- Totals --		0	35	14	19	1	0	69

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

A1 **ROGELL GOLF COURSE**
18690 BERG RD
< 1/8 **DETROIT, MI 48219**
1 ft.

LUST **U003324288**
UST **N/A**
WDS

Site 1 of 3 in cluster A

Relative:
Higher

LUST:
 Facility ID: 00019067
 Source: STATE OF MICHIGAN
 Owner Name: Greater Grace Temple
 Owner Address: 23500 West 7 Mile Rd
 Owner City,St,Zip: Detroit, MI 48219
 Owner Contact: Not reported
 Owner Phone: (313) 543-6071
 Country: USA
 District: Region 1 - SE Michigan District Office
 Site Name: Rogell Golf Course
 Latitude: 42.42383
 Longitude: -83.26733
 Date of Collection: 01/11/2001
 Method of Collection: Address Matching-House Number
 Accuracy: 100
 Accuracy Value Unit: FEET
 Horizontal Data: NAD83
 Point Line Area: POINT
 Desc Category: Plant Entrance (Freight)

Actual:
633 ft.

Leak Number: C-0387-99
 Release Date: 05/06/1999
 Substance Released: Unknown,Unknown
 Release Status: Closed
 Release Closed Date: 08/16/1999

UST:
 Facility ID: 00019067
 Facility Type: CLOSED
 Owner Name: GREATER GRACE TEMPLE
 Owner Address: 23500 WEST 7 MILE RD
 Owner City,St,Zip: DETROIT, MI 48219
 Owner Country: USA
 Owner Contact: Not reported
 Owner Phone: (313) 543-6071
 Contact: Martin Hardy
 Contact Phone: (313) 543-6071
 Date of Collection: 01/11/2001
 Accuracy: 100
 Accuracy Value Unit: FEET
 Horizontal Datum: NAD83
 Source: STATE OF MICHIGAN
 Point Line Area: POINT
 Desc Category: Plant Entrance (Freight)
 Method of Collection: Address Matching-House Number
 Latitude: 42.42383
 Longitude: -83.26733

Tank ID: 1
Tank Status: **Removed from Ground**
 Capacity: 550
 Product: Gasoline
 Install Date: 03/20/1955

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

ROGELL GOLF COURSE (Continued)

U003324288

Remove Date: 11/14/2007
 Tank Release Detection: Not reported
 Pipe Release Detection: Not reported
 Piping Material: Galvanized Steel
 Piping Type: Not reported
 Construction Material: Cathodically Protected Steel
 Impressed Device: No

WDS:

Site Id: MI0000260315
 WMD Id: 390847
 Site Specific Name: CITY OF DETROIT
 Mailing Address: 8221 W DAVISON
 Mailing City/State/Zip: 48238
 Mailing County: WAYNE

A2

**ROGELL GOLF COURSE
 18690 BERG RD
 DETROIT, MI**

RGA LUST

**S115691961
 N/A**

< 1/8
 1 ft.

Site 2 of 3 in cluster A

**Relative:
 Higher**

RGA LUST:

2012	ROGELL GOLF COURSE	18690 BERG RD
2011	ROGELL GOLF COURSE	18690 BERG RD
2010	ROGELL GOLF COURSE	18690 BERG RD
2009	ROGELL GOLF COURSE	18690 BERG RD
2008	ROGELL GOLF COURSE	18690 BERG RD
2007	ROGELL GOLF COURSE	18690 BERG RD
2006	ROGELL GOLF COURSE	18690 BERG RD
2005	ROGELL GOLF COURSE	18690 BERG RD
2004	ROGELL GOLF COURSE	18690 BERG RD
2003	ROGELL GOLF COURSE	18690 BERG RD
2001	ROGELL GOLF COURSE	18690 BERG RD
2000	ROGELL GOLF COURSE	18690 BERG RD

**Actual:
 633 ft.**

A3

**CITY OF DETROIT
 18690 BERG RD
 DETROIT, MI 48219**

**RCRA NonGen / NLR
 FINDS
 ECHO**

**100088211
 MI0000260315**

< 1/8
 1 ft.

Site 3 of 3 in cluster A

**Relative:
 Higher**

RCRA NonGen / NLR:

Date form received by agency: 09/08/1997
 Facility name: CITY OF DETROIT
 Facility address: 18690 BERG RD
 DETROIT, MI 48219
 EPA ID: MI0000260315
 Mailing address: 8221 W DAVISON
 DETROIT, MI 48238
 Contact: RONALD BRUNDIDGE
 Contact address: 18690 BERG RD
 DETROIT, MI 48219
 Contact country: US
 Contact telephone: 313-833-7296
 Contact email: Not reported
 EPA Region: 05

**Actual:
 633 ft.**

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CITY OF DETROIT (Continued)

1000888211

Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: DETROIT CITY OF DPW
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Municipal
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Owner/operator name: DETROIT CITY OF DPW
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Municipal
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

Historical Generators:

Date form received by agency: 04/29/1994
Site name: CITY OF DETROIT
Classification: Large Quantity Generator

. Waste code: D001

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CITY OF DETROIT (Continued)

1000888211

Waste name: IGNITABLE WASTE

Violation Status: No violations found

FINDS:

Registry ID: 110003564232

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1000888211
 Registry ID: 110003564232
 DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110003564232>

**4
 NNW
 < 1/8
 0.004 mi.
 22 ft.**

**SEVEN MILE SITE
 22500 SEVEN MILE
 DETROIT, MI 48331**

**UST U003326665
 N/A**

**Relative:
 Higher**

UST:

Facility ID: 00039262
 Facility Type: CLOSED
 Owner Name: SUPERIOR MATERIALS LLC
 Owner Address: PO BOX 2900
 Owner City,St,Zip: FARMINGTON HILLS, MI 48331
 Owner Country: USA
 Owner Contact: Not reported
 Owner Phone: (248) 521-9949
 Contact: MR ALVA WOOD
 Contact Phone: (248) 848-3714
 Date of Collection: 01/11/2001
 Accuracy: 100
 Accuracy Value Unit: FEET
 Horizontal Datum: NAD83
 Source: STATE OF MICHIGAN
 Point Line Area: POINT
 Desc Category: Plant Entrance (Freight)
 Method of Collection: Address Matching-House Number
 Latitude: 42.42927
 Longitude: -83.26469

**Actual:
 630 ft.**

Tank ID: 1
Tank Status: Removed from Ground
 Capacity: 500
 Product: Used Oil
 Install Date: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

SEVEN MILE SITE (Continued)

U003326665

Remove Date: 02/25/1997
 Tank Release Detection: Not reported
 Pipe Realease Detection: Not reported
 Piping Material: Bare Steel
 Piping Type: Not reported
 Construction Material: Asphalt Coated or Bare Steel
 Impressed Device: No

**B5
 NNW
 < 1/8
 0.008 mi.
 41 ft.**

**LIVERNOIS LOUIS J
 22530 W 7 MILE RD
 DETROIT, MI**

**EDR Hist Auto 1009489744
 N/A**

Site 1 of 2 in cluster B

**Relative:
 Higher**

EDR Hist Auto

**Actual:
 631 ft.**

Year: Name: Type:
 1956 LIVERNOIS LOUIS J GASOLINE STATIONS

**C6
 NE
 < 1/8
 0.009 mi.
 47 ft.**

**JEFFRIES RAY MARATHON SERVICE
 22000 W 7 MILE
 DETROIT, MI 48219**

**EDR Hist Auto 1020550685
 N/A**

Site 1 of 4 in cluster C

**Relative:
 Higher**

EDR Hist Auto

**Actual:
 634 ft.**

Year: Name: Type:
 1969 BIG-M SERVICE Gasoline Service Stations
 1971 JEFFRIES RAY MARATHON SERVICE Gasoline Service Stations

**C7
 NE
 < 1/8
 0.010 mi.
 52 ft.**

**CONSOLIDATED UNIT #2268
 22000 W 7 MILE & LANSER
 DETROIT, MI 45501**

**LUST U003323838
 UST N/A**

Site 2 of 4 in cluster C

**Relative:
 Higher**

LUST:

**Actual:
 633 ft.**

Facility ID: 00017455
 Source: STATE OF MICHIGAN
 Owner Name: Emro Marketing Co
 Owner Address: Po Box 1500
 Owner City,St,Zip: Springfield, OH 45501-1500
 Owner Contact: Not reported
 Owner Phone: (937) 864-3000
 Country: USA
 District: Region 1 - SE Michigan District Office
 Site Name: Speedway #2268
 Latitude: 42.42923
 Longitude: -83.25871
 Date of Collection: 01/11/2001
 Method of Collection: Address Matching-House Number
 Accuracy: 100
 Accuracy Value Unit: FEET
 Horizontal Data: NAD83

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CONSOLIDATED UNIT #2268 (Continued)

U003323838

Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Leak Number: C-0239-92
Release Date: 02/10/1992
Substance Released: Unknown
Release Status: Closed
Release Closed Date: 07/08/1996

UST:

Facility ID: 00017455
Facility Type: CLOSED
Owner Name: EMRO MARKETING CO
Owner Address: PO BOX 1500
Owner City,St,Zip: SPRINGFIELD, OH 45501-1500
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (937) 864-3000
Contact: D.L. WRIGHT
Contact Phone: (317) 243-7500
Date of Collection: 01/11/2001
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number
Latitude: 42.42923
Longitude: -83.25871

Tank ID: A
Tank Status: Removed from Ground
Capacity: 8000
Product: Gasoline
Install Date: 05/07/1977
Remove Date: 02/10/1992
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Construction Material: Fiberglass Reinforced plastic
Impressed Device: No

Tank ID: B
Tank Status: Removed from Ground
Capacity: 8000
Product: Gasoline
Install Date: 05/07/1977
Remove Date: 02/10/1992
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Construction Material: Fiberglass Reinforced plastic
Impressed Device: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CONSOLIDATED UNIT #2268 (Continued)

U003323838

Tank ID: C
Tank Status: Removed from Ground
Capacity: 8000
Product: Gasoline
Install Date: 05/07/1977
Remove Date: 02/10/1992
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Construction Material: Fiberglass Reinforced plastic
Impressed Device: No

Tank ID: D
Tank Status: Removed from Ground
Capacity: 8000
Product: Gasoline
Install Date: 05/07/1977
Remove Date: 02/10/1992
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Construction Material: Fiberglass Reinforced plastic
Impressed Device: No

8
SW
< 1/8
0.010 mi.
53 ft.

UPCHURCH OTIS
23350 GRAND RIVER AVE
DETROIT, MI

EDR Hist Auto 1009489858
N/A

Relative:
Lower

EDR Hist Auto

Actual:
621 ft.

Year: Name:
1931 UPCHURCH OTIS
1935 HODGE JOHN
1940 ARNEY L MERLE
1956 BILGER AND SON

Type:
GASOLINE AND OIL SERVICE STATIONS
GASOLINE AND OIL SERVICE STATIONS
AUTOMOBILE REPAIRING
GASOLINE STATIONS

D9
NE
< 1/8
0.013 mi.
66 ft.

HOUSTON CLEANERS
14108 HOUSTON WHITTLIER AVE
DETROIT, MI

EDR Hist Cleaner 1009476969
N/A

Site 1 of 3 in cluster D

Relative:
Higher

EDR Hist Cleaner

Actual:
635 ft.

Year: Name:
1954 HOUSTON CLEANERS

Type:
CLEANERS AND DYERS

MAP FINDINGS

Map ID			EDR ID Number
Direction			EPA ID Number
Distance			
Elevation	Site	Database(s)	

E10 NW < 1/8 0.013 mi. 66 ft.	STUMPF JACOB C 22684 W SEVEN MILE RD DETROIT, MI Site 1 of 2 in cluster E EDR Hist Auto Year: Name: Type: 1935 STUMPF JACOB C GASOLINE AND OIL SERVICE STATIONS	EDR Hist Auto 1009489760 N/A
---	---	---

B11 NW < 1/8 0.013 mi. 69 ft.	BILGER EARL E 22550 W 7 MILE RD DETROIT, MI Site 2 of 2 in cluster B EDR Hist Auto Year: Name: Type: 1940 BILGER EARL E GASOLINE AND OIL SERVICE STATIONS	EDR Hist Auto 1009489746 N/A
---	---	---

D12 NE < 1/8 0.014 mi. 75 ft.	FRIENDLY LAUNDROMAT 22150 W SEVEN MILE RD DETROIT, MI Site 2 of 3 in cluster D EDR Hist Cleaner Year: Name: Type: 1965 FRIENDLY LAUNDROMAT LAUNDRIES SELF SERVE	EDR Hist Cleaner 1009478791 N/A
---	---	--

D13 NE < 1/8 0.014 mi. 76 ft.	EDGEWATER CLEANERS 22144 W SEVEN MILE RD DETROIT, MI 48219 Site 3 of 3 in cluster D EDR Hist Cleaner Year: Name: Type: 1985 EDGEWATER CLEANERS Garment Pressing And Cleaners' Agents 1986 EDGEWATER CLEANERS Garment Pressing And Cleaners' Agents 1987 EDGEWATER CLEANERS Garment Pressing And Cleaners' Agents 1988 EDGEWATER CLEANERS Garment Pressing And Cleaners' Agents 1989 EDGEWATER CLEANERS Laundry And Drycleaner Agents 1990 EDGEWATER CLEANERS Laundry And Drycleaner Agents	EDR Hist Cleaner 1018873625 N/A
---	---	--

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

E14
NW
< 1/8
0.016 mi.
83 ft.

HYDRO PRO INC
22680 W 7 MILE RD
DETROIT, MI 48219

RCRA NonGen / NLR **1008403591**
MIK746263896

Site 2 of 2 in cluster E

Relative:
Higher

RCRA NonGen / NLR:

Actual:
634 ft.

Date form received by agency: 08/03/2005
Facility name: HYDRO PRO INC
Facility address: 22680 W 7 MILE RD
DETROIT, MI 48219
EPA ID: MIK746263896
Mailing address: 524 BARRINGTON RD
GROSSE POINTE PARK, MI 48230
Contact: BILL BURNS
Contact address: 22680 W 7 MILE RD
DETROIT, MI 48219
Contact country: US
Contact telephone: 313-343-0272
Contact email: Not reported
EPA Region: 05
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: BILL BURNS
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 08/03/2005
Owner/Op end date: Not reported

Owner/operator name: BILL BURNS
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 08/03/2005
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HYDRO PRO INC (Continued)

1008403591

On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
Used oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

Violation Status: No violations found

C15
NE
< 1/8
0.017 mi.
91 ft.

**PALLER FREDK
19101 LAHSER AVE
DETROIT, MI**

Site 3 of 4 in cluster C

EDR Hist Auto 1009488775
N/A

Relative:
Higher

EDR Hist Auto

Actual:
631 ft.

Year: Name:
1931 PALLER FREDK
1935 SWAN GEO J
1940 WILLIAMS HELEN K

Type:
GASOLINE AND OIL SERVICE STATIONS
GASOLINE AND OIL SERVICE STATIONS
GASOLINE AND OIL SERVICE STATIONS

C16
NE
< 1/8
0.029 mi.
153 ft.

**STROHMER GULF SERVICE
22100 W SEVEN MILE RD
DETROIT, MI**

Site 4 of 4 in cluster C

EDR Hist Auto 1009489618
N/A

Relative:
Higher

EDR Hist Auto

Actual:
635 ft.

Year: Name:
1965 STROHMER GULF SERVICE
1969 STROHMERS GULF SERVICE
1970 STROHMER S GULF SERVICE
1970 STROHMERS GULF SERVICE

Type:
GASOLINE STATIONS
Gasoline Service Stations
GASOLINE STATIONS
Gasoline Service Stations

F17
NE
< 1/8
0.035 mi.
186 ft.

**WHITEFOOT THOS
19102 LAHSER AVE
DETROIT, MI**

Site 1 of 2 in cluster F

EDR Hist Auto 1009488778
N/A

Relative:
Higher

EDR Hist Auto

Actual:
631 ft.

Year: Name:
1935 WHITEFOOT THOS
1940 WHITEFOOT THOS

Type:
GASOLINE AND OIL SERVICE STATIONS
GASOLINE AND OIL SERVICE STATIONS

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

F18
NE
< 1/8
0.045 mi.
236 ft.

WHITEFOOT THOS
19100 LAHSER AVE
DETROIT, MI
Site 2 of 2 in cluster F

EDR Hist Auto **1009488770**
N/A

Relative:
Higher

EDR Hist Auto

Actual:
629 ft.

Year: Name:
1940 WHITEFOOT THOS
1956 WHITEFOOT THOS C

Type:
GASOLINE AND OIL SERVICE STATIONS
GASOLINE STATIONS

G19
ENE
< 1/8
0.050 mi.
262 ft.

DETROIT SERVICE LEARNING ACADEMY
21755 W 7 MILE RD
DETROIT, MI 48219
Site 1 of 4 in cluster G

RCRA-CESQG **1014391455**
MIK152221230

Relative:
Higher

RCRA-CESQG:

Actual:
629 ft.

Date form received by agency: 10/12/2010
Facility name: DETROIT SERVICE LEARNING ACADEMY
Facility address: 21755 W 7 MILE RD
 DETROIT, MI 48219
EPA ID: MIK152221230
Mailing address: 21605 W 7 MILE RD
 DETROIT, MI 48219
Contact: PAUL CHILDS
Contact address: 21755 W 7 MILE RD
 DETROIT, MI 48219
Contact country: US
Contact telephone: 313-541-7619
Contact email: Not reported
EPA Region: 05
Classification: Conditionally Exempt Small Quantity Generator
Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name: DETROIT SERVICE LEARNING ACADEMY
Owner/operator address: Not reported
 Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DETROIT SERVICE LEARNING ACADEMY (Continued)

1014391455

Owner/Operator Type: Operator
Owner/Op start date: 08/01/2008
Owner/Op end date: Not reported

Owner/operator name: DETROIT SERVICE LEARNING ACADEMY
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 08/01/2008
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

Violation Status: No violations found

H20
WNW
< 1/8
0.057 mi.
301 ft.

GREATER GRACE CHURCH
23500 W 7 MILE RD
DETROIT, MI 48219
Site 1 of 2 in cluster H

RCRA NonGen / NLR 1007096099
MIK144446663

Relative:
Higher

RCRA NonGen / NLR:
Date form received by agency: 06/18/2001
Facility name: GREATER GRACE CHURCH
Facility address: 23500 W 7 MILE RD
DETROIT, MI 48219

EPA ID: MIK144446663
Contact: HERSHELL THOMAS
Contact address: 23500 W 7 MILE RD
DETROIT, MI 48219

Contact country: US
Contact telephone: 248-867-7119
Contact email: Not reported
EPA Region: 05

Actual:
622 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GREATER GRACE CHURCH (Continued)

1007096099

Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: GREATER GRACE CHURCH
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 06/18/2001
Owner/Op end date: Not reported

Owner/operator name: GREATER GRACE CHURCH
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 06/18/2001
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

Violation Status: No violations found

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

G21
ENE
< 1/8
0.076 mi.
399 ft.

FORMER SHELL STATION
21640 W 7 MILE RD
DETROIT, MI 48240
Site 2 of 4 in cluster G

AUL S104910418
BEA N/A

Relative:
Higher

AUL:

Actual:
632 ft.

Status: Pending
Site Name: Not reported
Property: On-Site
Land Use Restriction Type: RC
Program Type: Part 213
Program Support Assigned User: Not reported
Program Support Assigned Date: Not reported
Legal Description Of Property: Not reported
Based On The Deq Ref #: 11121316084
MDEQ Reference Number: RC-RRD-213-16-084
Property Or Description Restricted Area: Not reported
Lead Division: RRD
File Name Of Hyperlinked Legal Doc: Not reported
Mapped Polygons Area In Acres: Not reported
Mapped Polygons Area In Square Miles: Not reported
Date Data Entry Started: Not reported
Date Data Entry Finished: Not reported
Individual Or Staff Assoc With The Mapping: Not reported
Program Used To Map Restricted Features: Not reported
Date Legal Paperwork Stamped/Filed/Register Of Deeds: Not reported
Commercial I Land Use Restriction: 0
Commercial Ii Land Use Restriction: 0
Commercial Iii Land Use Restriction: 0
Commercial Iv Land Use Restriction: 0
Industrial Land Use Restriction: 0
Residential Land Use Restriction: 0
Recreational Land Use Restriction: 0
Multiple Land-Use Restrictions: 0
Site Specific Restrictions: 0
Groundwater Consumption Restrictions: 0
Groundwater Contact Restrictions: 0
Special Well Construction Requirements: 0
Special Building Restrictions: 0
Excavation And Soil Movement Restrictions: 0
Soil Movement Requirements: 0
There Is A Restriction On All Construction: 0
Monitoring Well Protected, No Tampering Or Removal: 0
There Is An Exposure Barrier In Place: 0
There Is A Health And Safety Plan: 0
There Is A Permanent Marker On The Site: 0
Map Comments: Not reported
Comment: 20160428 - Reference number was requested by Alison Bitel of AECOM - Nick Ekel

BEA:

Secondary Address: Not reported
BEA Number: 191
District: Southeast MI
Date Received: 10/10/1996
Submitter Name: GLENN R. REMUS
Petition Determination: Affirmed
Petition Disclosure: 1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FORMER SHELL STATION (Continued)

S104910418

Category: No Hazardous Substance(s)
Determination 20107A: Denied
Reviewer: tempm
Division Assigned: Storage Tank Division

G22
ENE
< 1/8
0.076 mi.
399 ft.

SEVEN MILE LAHSER SHELL STATION
21640 W SEVEN MILE RD
DETROIT, MI

EDR Hist Auto **1009489524**
N/A

Site 3 of 4 in cluster G

Relative:
Higher

EDR Hist Auto

Actual:
632 ft.

Year:	Name:	Type:
1965	SEVEN MILE LAHSER SHELL STATION	GASOLINE STATIONS
1969	SEVEN MILE LAHSER SERVICE	Gasoline Service Stations
1970	SEVEN MILE C LAHSER SHELL SERVI	GASOLINE STATIONS
1970	SEVEN MILE LAHSER SERVICE	Gasoline Service Stations
1971	SEVEN MILE LAHSER SERVICE	Gasoline Service Stations
1972	TURPIN ART SHELL SERVICE	Gasoline Service Stations
1973	TURPIN ART SHELL SERVICE	Gasoline Service Stations
1974	TURPIN ART SHELL SERVICE	Gasoline Service Stations
1975	TURPIN ART SHELL SERVICE	Gasoline Service Stations
1976	TURPIN ART SHELL SERVICE	Gasoline Service Stations
1977	TURPIN ART SHELL SERVICE	Gasoline Service Stations
1978	TURPIN ART SHELL SERVICE	Gasoline Service Stations
1979	TURPIN ART SHELL SERVICE	Gasoline Service Stations
1980	TURPIN ART SHELL SERVICE	Gasoline Service Stations

G23
ENE
< 1/8
0.076 mi.
399 ft.

SHELL STATION (FORMER)
21640 WEST 7 MILE
DETROIT, MI 60563

LUST **S103382684**
INVENTORY **N/A**

Site 4 of 4 in cluster G

Relative:
Higher

LUST:

Actual:
632 ft.

Facility ID: 50002286
Source: STATE OF MICHIGAN
Owner Name: Shell Oil Products US
Owner Address: 603 E Diehl Road Ste 103
Owner City,St,Zip: Naperville, IL 60563-4800
Owner Contact: Not reported
Owner Phone: 630-276-4291
Country: USA
District: Region 1 - SE Michigan District Office
Site Name: Shell Station (former)
Latitude: 42.42928
Longitude: -83.25666
Date of Collection: 01/11/2001
Method of Collection: Address Matching-House Number
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL STATION (FORMER) (Continued)

S103382684

Leak Number: C-0968-98
Release Date: 10/06/1998
Substance Released: Unknown
Release Status: Open
Release Closed Date: Not reported

INVENTORY:

Bea Number: Not reported
Township: Not reported
District: Southeast MI
Data Source: Part 213
Latitude: 42.42928
Longitude: -83.25666

24
SW
< 1/8
0.081 mi.
429 ft.

GRAND LAWN CEMETERY
23501 GRAND RIVER AVE
DETROIT, MI 48219

UST U003325992
N/A

Relative:
Higher

UST:

Facility ID: 00036840
Facility Type: CLOSED
Owner Name: MEADCO-SIENA L.L.C
Owner Address: 1909 WICKHAM ST
Owner City,St,Zip: ROYAL OAK, MI 48073-1120
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (734) 662-8902
Contact: THOMAS CAMARDA
Contact Phone: (313) 531-2050
Date of Collection: 01/11/2001
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number
Latitude: 42.42155
Longitude: -83.27160

Tank ID: 1
Tank Status: Removed from Ground
Capacity: 2000
Product: Gasoline
Install Date: 01/01/1983
Remove Date: 09/01/1992
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Bare Steel
Piping Type: Suction: No Valve At Tank
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 2
Tank Status: Removed from Ground

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GRAND LAWN CEMETERY (Continued)

U003325992

Capacity: 1000
Product: Diesel
Install Date: 01/01/1983
Remove Date: 09/01/1992
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Bare Steel
Piping Type: Suction: No Valve At Tank
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

**25
SE
< 1/8
0.086 mi.
454 ft.**

**FRENCH S COLLISION
18421 LAHSER AVE
DETROIT, MI**

**EDR Hist Auto 1009488594
N/A**

**Relative:
Higher**

EDR Hist Auto

**Actual:
642 ft.**

Year:	Name:	Type:
1931	ABEND AUTO TOP CO	AUTOMOBILE REPAIRING
1935	ABEND AUTO TOP CO	AUTOMOBILE REPAIRING
1940	ABEND AUTO TOP CO	AUTOMOBILE REPAIRING
1956	FRENCH S COLLISION	AUTOMOBILE REPAIRING
1965	PRENCHY S COLLISION SHOP	AUTOMOBILE REPAIRING
1992	BROTHER WLSONS AUTO-TRUCK CARE	General Automotive Repair Shops
1993	BROTHER WLSONS AUTO-TRUCK CARE	General Automotive Repair Shops
1994	BROTHER WLSONS AUTO-TRUCK CARE	General Automotive Repair Shops
1995	BROTHER WLSONS AUTO-TRUCK CARE	General Automotive Repair Shops
1996	BROTHER WLSONS AUTO-TRUCK CARE	General Automotive Repair Shops
1997	BROTHER WLSONS AUTO-TRUCK CARE	General Automotive Repair Shops
2008	BROTHER WLSONS AUTO-TRUCK CARE	General Automotive Repair Shops
2011	JOHNNIE S CAR CARE	General Automotive Repair Shops

**H26
WNW
< 1/8
0.092 mi.
485 ft.**

**ATTERSON GORDON A
23375 W SEVEN MILE RD
DETROIT, MI**

**EDR Hist Auto 1009489863
N/A**

Site 2 of 2 in cluster H

**Relative:
Higher**

EDR Hist Auto

**Actual:
629 ft.**

Year:	Name:	Type:
1931	WILSON PAUL	GASOLINE AND OIL SERVICE STATIONS
1935	ATTERSON GORDON A	GASOLINE AND OIL SERVICE STATIONS

MAP FINDINGS

Map ID			EDR ID Number
Direction			EPA ID Number
Distance			
Elevation	Site	Database(s)	

27 ENE < 1/8 0.094 mi. 497 ft.	(FORMER) BOWLERAMA 21630 WEST SEVEN MILE ROAD DETROIT, MI	BEA	S104911879 N/A
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Relative: Higher	BEA:	Secondary Address: Not reported BEA Number: 488 District: Southeast MI Date Received: 12/01/1997 Submitter Name: UNITED STATES POSTAL SERVICE Petition Determination: Affirmed Petition Disclosure: 1 Category: No Hazardous Substance(s) Determination 20107A: Affirmed Reviewer: temppm Division Assigned: Storage Tank Division
Actual: 630 ft.		Secondary Address: Not reported BEA Number: 678 District: Southeast MI Date Received: 07/28/1998 Submitter Name: H & K ENTERPRISES, L.L.C. Petition Determination: Affirmed Petition Disclosure: 1 Category: No Hazardous Substance(s) Determination 20107A: Affirmed Reviewer: macugam Division Assigned: Storage Tank Division

128 South < 1/8 0.109 mi. 578 ft.	CURRIE S COLLISION SERVICE 22555 GRAND RIVER DETROIT, MI Site 1 of 2 in cluster I	EDR Hist Auto	1009489747 N/A
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Relative: Higher	EDR Hist Auto	Year: Name: Type: 1956 CURRIE S COLLISION SERVICE AUTOMOBILE REPAIRING
Actual: 628 ft.		

129 South 1/8-1/4 0.136 mi. 717 ft.	TOTAL AUTOMOTIVE ENGINEERING 22541 GRAND RIVER AVE DETROIT, MI 48219 Site 2 of 2 in cluster I	RCRA NonGen / NLR FINDS ECHO	1000147279 MID095392288
--	--	---	--

Relative: Higher	RCRA NonGen / NLR:	Date form received by agency: 10/30/1986 Facility name: TOTAL AUTOMOTIVE ENGINEERING Facility address: 22541 GRAND RIVER AVE DETROIT, MI 48219 EPA ID: MID095392288 Contact: TONY MANNARINO Contact address: 22541 GRAND RIVER AVE DETROIT, MI 48219 Contact country: US
Actual: 628 ft.		

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TOTAL AUTOMOTIVE ENGINEERING (Continued)

1000147279

Contact telephone: 313-533-7060
Contact email: Not reported
EPA Region: 05
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: NAME NOT REPORTED
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Owner/operator name: MANNARINO ANDREW G
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

Violation Status: No violations found

FINDS:

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

TOTAL AUTOMOTIVE ENGINEERING (Continued)

1000147279

Registry ID: 110003608659

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1000147279
 Registry ID: 110003608659
 DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110003608659>

30
WNW
1/8-1/4
0.153 mi.
810 ft.

7 MILE TELEGRAPH MINI MART INC
23540 WEST 7 MILE RD
DETROIT, MI 48210

LUST **U003322346**
UST **N/A**
Financial Assurance

Relative:
Higher

LUST:

Facility ID: 00011914
 Source: STATE OF MICHIGAN
 Owner Name: 7 Mile & Telegraph Mini Mart Inc
 Owner Address: 23540 West 7 Mile Rd
 Owner City,St,Zip: Detroit, MI 48210
 Owner Contact: Not reported
 Owner Phone: (313) 255-7990
 Country: USA
 District: Region 1 - SE Michigan District Office
 Site Name: Commercial Business Int'l Inc
 Latitude: 42.42913
 Longitude: -83.27247
 Date of Collection: 01/11/2001
 Method of Collection: Address Matching-House Number
 Accuracy: 100
 Accuracy Value Unit: FEET
 Horizontal Data: NAD83
 Point Line Area: POINT
 Desc Category: Plant Entrance (Freight)

Leak Number: C-0617-99
 Release Date: 06/25/1999
 Substance Released: Unknown
 Release Status: Closed
 Release Closed Date: 05/10/2000

Actual:
631 ft.

UST:

Facility ID: 00011914
 Facility Type: ACTIVE
 Owner Name: 7 MILE & TELEGRAPH MINI MART INC
 Owner Address: 23540 WEST 7 MILE RD
 Owner City,St,Zip: DETROIT, MI 48210

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

7 MILE TELEGRAPH MINI MART INC (Continued)

U003322346

Owner Country: USA
Owner Contact: Not reported
Owner Phone: (313) 255-7990
Contact: Sam Bazzi
Contact Phone: (313) 537-9900
Date of Collection: 01/11/2001
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number
Latitude: 42.42913
Longitude: -83.27247

Tank ID: 1
Tank Status: Removed from Ground
Capacity: 6000
Product: Gasoline
Install Date: 05/02/1977
Remove Date: 09/30/2014
Tank Release Detection: Automatic Tank Gauging
Pipe Release Detection: Interstitial Monitoring Double Walled Piping
Piping Material: Galvanized Steel
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 2
Tank Status: Removed from Ground
Capacity: 6000
Product: Gasoline
Install Date: 05/02/1977
Remove Date: 09/30/2014
Tank Release Detection: Automatic Tank Gauging
Pipe Release Detection: Interstitial Monitoring Double Walled Piping
Piping Material: Galvanized Steel
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 3
Tank Status: Removed from Ground
Capacity: 6000
Product: Gasoline
Install Date: 05/02/1977
Remove Date: 09/30/2014
Tank Release Detection: Automatic Tank Gauging
Pipe Release Detection: Interstitial Monitoring Double Walled Piping
Piping Material: Galvanized Steel
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

7 MILE TELEGRAPH MINI MART INC (Continued)

U003322346

Tank ID: 4
Tank Status: **Removed from Ground**
Capacity: 6000
Product: Kerosene
Install Date: 05/02/1977
Remove Date: 09/30/2014
Tank Release Detection: Automatic Tank Gauging
Pipe Realease Detection: Interstitial Monitoring Double Walled Piping
Piping Material: Galvanized Steel
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 5
Tank Status: **Removed from Ground**
Capacity: 6000
Product: Diesel
Install Date: 05/02/1977
Remove Date: 09/30/2014
Tank Release Detection: Automatic Tank Gauging
Pipe Realease Detection: Interstitial Monitoring Double Walled Piping
Piping Material: Galvanized Steel
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 6
Tank Status: **Currently In Use**
Capacity: 12000
Product: Gasoline, Diesel
Install Date: 10/09/2014
Remove Date: Not reported
Tank Release Detection: Automatic Tank Gauging
Pipe Realease Detection: Automatic Line Leak Detectors, Interstitial Monitoring Double Walled Piping, Interstitial Monitoring/Second Containment
Piping Material: Cathodically Protected
Piping Type: Pressure
Construction Material: Double Walled
Impressed Device: No

Tank ID: 7
Tank Status: **Currently In Use**
Capacity: 12000
Product: Gasoline
Install Date: 10/09/2014
Remove Date: Not reported
Tank Release Detection: Automatic Tank Gauging
Pipe Realease Detection: Automatic Line Leak Detectors, Interstitial Monitoring Double Walled Piping, Interstitial Monitoring/Second Containment
Piping Material: Cathodically Protected
Piping Type: Pressure, Pressure
Construction Material: Double Walled
Impressed Device: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

J31
South
1/8-1/4
0.165 mi.
873 ft.

US POSTAL SERVICE
22503 GRAND RIVER
DETROIT, MI 48219

Site 1 of 3 in cluster J

RCRA NonGen / NLR
FINDS
ECHO

1001220065
MIR000030247

Relative:
Higher

RCRA NonGen / NLR:

Actual:
629 ft.

Date form received by agency: 02/09/1998
Facility name: US POSTAL SERVICE
Facility address: 22503 GRAND RIVER
DETROIT, MI 48219
EPA ID: MIR000030247
Contact: KARL KARNAY
Contact address: 22503 GRAND RIVER
DETROIT, MI 48219
Contact country: US
Contact telephone: 313-226-8656
Contact email: Not reported
EPA Region: 05
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: MASON AND ANNA MARY MCKEEL (PROPERTY)
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Owner/operator name: US POSTAL SERVICE
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Federal
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Owner/operator name: MASON AND ANNA MARY MCKEEL (PROPERTY)
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

US POSTAL SERVICE (Continued)

1001220065

Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Owner/operator name: US POSTAL SERVICE
Owner/operator address: Not reported
Not reported

Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Federal
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

Violation Status: No violations found

FINDS:

Registry ID: 110003704812

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1001220065
Registry ID: 110003704812

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

US POSTAL SERVICE (Continued)

1001220065

DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110003704812>

K32
WSW
1/8-1/4
0.186 mi.
983 ft.

ZACK FUELS
23600 GRAND RIVER
DETROIT, MI 48219
Site 1 of 5 in cluster K

INVENTORY **S114564717**
N/A

Relative:
Higher

INVENTORY:
 Bea Number: Not reported
 Township: Not reported
 District: Southeast MI
 Data Source: Part 213
 Latitude: 42.42231
 Longitude: -83.27274

Actual:
626 ft.

K33
WSW
1/8-1/4
0.186 mi.
983 ft.

RITA K. INC. PROPERTY (FORMER)
23600 GRAND RIVER AVE.
WAYNE (County), MI 48219
Site 2 of 5 in cluster K

INVENTORY **S114031820**
N/A

Relative:
Higher

INVENTORY:
 Bea Number: 201305458LV
 Township: Detroit
 District: Southeast MI
 Data Source: BEA
 Latitude: 42.42298
 Longitude: -83.27276

Actual:
626 ft.

K34
WSW
1/8-1/4
0.186 mi.
984 ft.

ZACK FUELS
23600 GRAND RIVER
DETROIT, MI 48073
Site 3 of 5 in cluster K

LUST **U003319376**
UST **N/A**
BEA
Financial Assurance
WDS

Relative:
Higher

LUST:
 Facility ID: 00000822
 Source: STATE OF MICHIGAN
 Owner Name: Barrick Enterprises #40 LLC
 Owner Address: 4338 Delemere Ct
 Owner City,St,Zip: Royal Oak, MI 48073
 Owner Contact: Robert Barrick
 Owner Phone: (313) 883-8001
 Country: USA
 District: Region 1 - SE Michigan District Office
 Site Name: Rita K Inc
 Latitude: 42.42231
 Longitude: -83.27274
 Date of Collection: 01/11/2001
 Method of Collection: Address Matching-House Number
 Accuracy: 100
 Accuracy Value Unit: FEET
 Horizontal Data: NAD83
 Point Line Area: POINT

Actual:
626 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ZACK FUELS (Continued)

U003319376

Desc Category: Plant Entrance (Freight)

Leak Number: C-0001-10
Release Date: 01/05/2010
Substance Released: Gasoline,Gasoline,Diesel
Release Status: Open
Release Closed Date: Not reported

Leak Number: C-0082-14
Release Date: 01/03/2013
Substance Released: Gasoline,Gasoline,Diesel
Release Status: Open
Release Closed Date: Not reported

UST:

Facility ID: 00000822
Facility Type: ACTIVE
Owner Name: BARRICK ENTERPRISES #40 LLC
Owner Address: 4338 DELEMERE CT
Owner City,St,Zip: ROYAL OAK, MI 48073
Owner Country: USA
Owner Contact: Robert Barrick
Owner Phone: (313) 883-8001
Contact: Robert Barrick
Contact Phone: (248) 549-3737
Date of Collection: 01/11/2001
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number
Latitude: 42.42231
Longitude: -83.27274

Tank ID: 1
Tank Status: Removed from Ground
Capacity: 10000
Product: Gasoline
Install Date: 04/08/1975
Remove Date: 01/05/2010
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Double Walled
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel,Lined Interior
Impressed Device: No

Tank ID: 2
Tank Status: Removed from Ground
Capacity: 10000
Product: Gasoline
Install Date: 04/08/1975
Remove Date: 01/05/2010
Tank Release Detection: Not reported
Pipe Release Detection: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ZACK FUELS (Continued)

U003319376

Piping Material: Double Walled
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel,Lined Interior
Impressed Device: No

Tank ID: 3
Tank Status: Removed from Ground
Capacity: 10000
Product: Diesel
Install Date: 04/08/1975
Remove Date: 01/05/2010
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Double Walled
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel,Lined Interior
Impressed Device: No

Tank ID: 4
Tank Status: Currently In Use
Capacity: 10000
Product: Gasoline
Install Date: 02/05/2010
Remove Date: Not reported
Tank Release Detection: Automatic Tank Gauging, Interstitial Monitoring Double Walled Tank
Pipe Realease Detection: Automatic Line Leak Detectors, Interstitial Monitoring Double Walled
Piping
Piping Material: Not reported
Piping Type: Pressure
Construction Material: Fiberglass Reinforced Plastic, Double Walled
Impressed Device: No

Tank ID: 5
Tank Status: Currently In Use
Capacity: 10000
Product: Gasoline, Diesel
Install Date: 02/05/2010
Remove Date: Not reported
Tank Release Detection: Automatic Tank Gauging, Interstitial Monitoring Double Walled Tank
Pipe Realease Detection: Automatic Line Leak Detectors, Interstitial Monitoring Double Walled
Piping
Piping Material: Not reported
Piping Type: Pressure, Pressure, Pressure
Construction Material: Fiberglass Reinforced Plastic, Double Walled
Impressed Device: No

BEA:
Secondary Address: Not reported
BEA Number: 5458
District: Southeast MI
Date Received: 01/30/2013
Submitter Name: Barrick Properties #40, LLC
Petition Determination: No Request
Petition Disclosure: 0

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ZACK FUELS (Continued)

U003319376

Category: Not reported
Determination 20107A: No Request
Reviewer: schlaufj
Division Assigned: RRD

WDS:

Site Id: MIK292874294
WMD Id: 485604
Site Specific Name: RITA K INC
Mailing Address: 23600 GRAND RIVER AVE
Mailing City/State/Zip: 48219
Mailing County: WAYNE

K35
WSW
1/8-1/4
0.186 mi.
984 ft.

RITA K INC
23600 GRAND RIVER AVE
DETROIT, MI 48219

RCRA NonGen / NLR **1012180266**
MIK292874294

Site 4 of 5 in cluster K

Relative:
Higher

RCRA NonGen / NLR:

Date form received by agency: 01/29/2009
Facility name: RITA K INC
Facility address: 23600 GRAND RIVER AVE
DETROIT, MI 48219
EPA ID: MIK292874294
Contact: ZACK KHOURY
Contact address: 23600 GRAND RIVER AVE
DETROIT, MI 48219
Contact country: US
Contact telephone: 248-303-9400
Contact email: Not reported
EPA Region: 05
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Actual:
626 ft.

Owner/Operator Summary:

Owner/operator name: ZACK & RITA KHOURY
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 04/01/2007
Owner/Op end date: Not reported

Owner/operator name: ZACK & RITA KHOURY
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RITA K INC (Continued)

1012180266

Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 04/01/2007
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Waste code: D001
Waste name: IGNITABLE WASTE

Violation Status: No violations found

J36
South
1/8-1/4
0.190 mi.
1004 ft.

SUNOCO INC
22471 GRAND RIVER AVE
DETROIT, MI 48219

RCRA NonGen / NLR **1000330923**
FINDS **MID000666537**
ECHO

Site 2 of 3 in cluster J

Relative:
Higher

RCRA NonGen / NLR:

Date form received by agency: 08/18/1980
Facility name: SUNOCO INC
Facility address: 22471 GRAND RIVER AVE
DETROIT, MI 48219
EPA ID: MID000666537
Contact: GIL LOVELL
Contact address: 22471 GRAND RIVER AVE
DETROIT, MI 48219
Contact country: US
Contact telephone: 313-358-2540
Contact email: Not reported
EPA Region: 05
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Actual:
630 ft.

Owner/Operator Summary:

Owner/operator name: SUNOCO SERVICE STATION
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SUNOCO INC (Continued)

1000330923

Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Owner/operator name: SUNOCO SERVICE STATION
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

Violation Status: No violations found

FINDS:

Registry ID: 110003572919

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

EDR ID Number
 EPA ID Number

SUNOCO INC (Continued)

1000330923

ECHO:

Envid: 1000330923
 Registry ID: 110003572919
 DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110003572919>

J37
South
1/8-1/4
0.211 mi.
1114 ft.

KLASS WERKS COLLISION
22435 GRAND RIVER AVE
DETROIT, MI 48219

RCRA NonGen / NLR
FINDS
ECHO

1000386082
MID981782964

Site 3 of 3 in cluster J

Relative:
Higher

RCRA NonGen / NLR:

Date form received by agency: 12/31/2001
 Facility name: KLASS WERKS COLLISION
 Facility address: 22435 GRAND RIVER AVE
 DETROIT, MI 48219
 EPA ID: MID981782964
 Contact: BRETT BOUCHER
 Contact address: 22435 GRAND RIVER AVE
 DETROIT, MI 48219
 Contact country: US
 Contact telephone: 313-531-4196
 Contact email: Not reported
 EPA Region: 05
 Classification: Non-Generator
 Description: Handler: Non-Generators do not presently generate hazardous waste

Actual:
630 ft.

Owner/Operator Summary:

Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE
 Owner/operator address: Not reported
 Not reported
 Owner/operator country: Not reported
 Owner/operator telephone: Not reported
 Owner/operator email: Not reported
 Owner/operator fax: Not reported
 Owner/operator extension: Not reported
 Legal status: Private
 Owner/Operator Type: Operator
 Owner/Op start date: 01/01/2002
 Owner/Op end date: Not reported

Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE
 Owner/operator address: Not reported
 Not reported
 Owner/operator country: Not reported
 Owner/operator telephone: Not reported
 Owner/operator email: Not reported
 Owner/operator fax: Not reported
 Owner/operator extension: Not reported
 Legal status: Private
 Owner/Operator Type: Owner
 Owner/Op start date: 01/01/2002
 Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KLASS WERKS COLLISION (Continued)

1000386082

Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

Historical Generators:

Date form received by agency: 09/29/1986
Site name: KLASS WERKS COLLISION
Classification: Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

Violation Status: No violations found

FINDS:

Registry ID: 110003622143

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1000386082
Registry ID: 110003622143
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110003622143>

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

K38
WSW
1/8-1/4
0.218 mi.
1153 ft.

CRAGGS CABINETRY (FORMER)
23660 GRAND RIVER
DETROIT, MI

INVENTORY **S114031567**
N/A

Site 5 of 5 in cluster K

Relative:
Higher

INVENTORY:

Bea Number: Not reported

Township: Detroit

District: Southeast MI

Actual:
626 ft.

Data Source: Part 201

Latitude: 42.42321

Longitude: -83.27356

39
West
1/8-1/4
0.246 mi.
1299 ft.

LARNED ELEM SCHOOL
23700 CLARITA ST
DETROIT, MI 48219

RCRA-CESQG **1000465569**
MID985602085

Relative:
Higher

RCRA-CESQG:

Date form received by agency: 09/30/2002

Facility name: LARNED ELEM SCHOOL

Facility address: 23700 CLARITA ST
DETROIT, MI 48219

EPA ID: MID985602085

Mailing address: 1425 E WARREN AVE
DETROIT, MI 48207

Contact: PRISCILLA MORRIS

Contact address: 23700 CLARITA ST
DETROIT, MI 48219

Contact country: US

Contact telephone: 313-578-7124

Contact email: Not reported

EPA Region: 05

Classification: Conditionally Exempt Small Quantity Generator

Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name: DETROIT PUBLIC SCHOOLS

Owner/operator address: Not reported

Not reported

Owner/operator country: Not reported

Owner/operator telephone: Not reported

Owner/operator email: Not reported

Owner/operator fax: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LARNED ELEM SCHOOL (Continued)

1000465569

Owner/operator extension: Not reported
Legal status: District
Owner/Operator Type: Operator
Owner/Op start date: 09/01/1954
Owner/Op end date: Not reported

Owner/operator name: DETROIT PUBLIC SCHOOLS
Owner/operator address: Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: District
Owner/Operator Type: Owner
Owner/Op start date: 09/01/1954
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

Historical Generators:

Date form received by agency: 12/18/1990
Site name: LARNED ELEM SCHOOL
Classification: Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

Violation Status: No violations found

MAP FINDINGS

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
40 SSE 1/4-1/2 0.354 mi. 1867 ft.	COOLEY STREET MERCURY RESPONSE 17534 COOLEY STREET DETROIT, MI 48219	SEMS	1018148970 MIN000510960
Relative: Higher	SEMS: Site ID: 510960 EPA ID: MIN000510960		
Actual: 632 ft.	Federal Facility: N NPL: Not on the NPL Non NPL Status: Removal Only Site (No Site Assessment Work Needed)		
L41 SSE 1/4-1/2 0.386 mi. 2039 ft.	22222 W. GRAND RIVER AVE WAYNE (County), MI 48219 Site 1 of 2 in cluster L	INVENTORY	S114023946 N/A
Relative: Higher	INVENTORY: Bea Number: 200101511LV Township: Detroit		
Actual: 631 ft.	District: Southeast MI Data Source: BEA Latitude: Not reported Longitude: Not reported		
L42 SSE 1/4-1/2 0.386 mi. 2039 ft.	22222 W. GRAND RIVER AVE DETROIT, MI 48219 Site 2 of 2 in cluster L	BEA	S105768270 N/A
Relative: Higher	BEA: Secondary Address: Not reported BEA Number: 1511		
Actual: 631 ft.	District: Southeast MI Date Received: 10/01/2001 Submitter Name: Wendy's International Inc. Petition Determination: No Request Petition Disclosure: 0 Category: No Hazardous Substance(s) Determination 20107A: No Request Reviewer: williakt Division Assigned: Environmental Response Division		
43 WSW 1/4-1/2 0.398 mi. 2102 ft.	TEL-GRAND M/C 18270 TELEGRAPH RD DETROIT, MI 48219	LUST UST AST WDS	U000267456 N/A
Relative: Higher	LUST: Facility ID: 00005092 Source: STATE OF MICHIGAN		
Actual: 630 ft.	Owner Name: U-Hauls Nevada Real Estate Co Owner Address: PO Box 21502		

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TEL-GRAND M/C (Continued)

U000267456

Owner City,St,Zip: Phoenix, AZ 85036-1502
Owner Contact: Not reported
Owner Phone: (602) 263-6647
Country: USA
District: Region 1 - SE Michigan District Office
Site Name: U-haul (telegraph)
Latitude: 42.42229
Longitude: -83.27771
Date of Collection: 01/11/2001
Method of Collection: Address Matching-House Number
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Leak Number: C-1785-92
Release Date: 10/13/1992
Substance Released: Gasoline
Release Status: Closed
Release Closed Date: 04/07/1993

UST:

Facility ID: 00005092
Facility Type: CLOSED
Owner Name: U-HAULS NEVADA REAL ESTATE CO
Owner Address: PO BOX 21502
Owner City,St,Zip: PHOENIX, AZ 85036-1502
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (602) 263-6647
Contact: CAROL HICKS
Contact Phone: (313) 584-8063
Date of Collection: 01/11/2001
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number
Latitude: 42.42229
Longitude: -83.27771

Tank ID: 1
Tank Status: Removed from Ground
Capacity: 10000
Product: Gasoline
Install Date: 12/27/1979
Remove Date: 05/07/1996
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TEL-GRAND M/C (Continued)

U000267456

Tank ID: 2
Tank Status: Removed from Ground
Capacity: 500
Product: Not reported
Install Date: 12/27/1979
Remove Date: 05/07/1996
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

AST:

Facility ID: 92082322
Facility Phone: (313) 534-8063
Owner Name: U-HAUL 754056
Owner Address: 15317 S TELEGRAPH RD
Owner City,St,Zip: MONROE, MI 48219-3031
Owner County: Not reported
Owner Contact: Not reported
Owner Telephone: 8006778904
District: 1
Contact: James Taylor
List Status: Not reported
Date of Collection: 01/11/2001
Accuracy: 100 FEET
Source: STATE OF MICHIGAN
Point Line Area: POINT
Description Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number
Horizontal Datum: NAD83
Latitude: 42.4222990
Longitude: -83.277712

Tank Id: ATK-108913-15
Tank Status: Removed from Ground
Capacity (in gallons): 1000
Installation Date: 10/27/2000
Substance Stored: Other
Removed/Closed Date: 11/28/2016

Tank Id: ATK-108911-15
Tank Status: Removed from Premises
Capacity (in gallons): 1000
Installation Date: 07/09/1985
Substance Stored: Other
Removed/Closed Date: 10/09/2000

WDS:

Site Id: MID985649227
WMD Id: 407510
Site Specific Name: U HAUL INC
Mailing Address: 29600 MICHIGAN AVE
Mailing City/State/Zip: 48141

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TEL-GRAND M/C (Continued)

U000267456

Mailing County: WAYNE

M44
WSW
1/4-1/2
0.400 mi.
2113 ft.

JAX KAR WASH
23831 GRAND RIVER AVE
DETROIT, MI 48219

AUL S105768190
BEA N/A
WDS

Site 1 of 2 in cluster M

Relative:
Higher

AUL:

Actual:
630 ft.

Status: Recorded
Site Name: Not reported
Property: Jax Kar Wash
Land Use Restriction Type: NCA
Program Type: Part 213
Program Support Assigned User: Nicholas Swartz
Program Support Assigned Date: 08/05/2009
Legal Description Of Property: Migrated
Based On The Deq Ref #: 12121304252
MDEQ Reference Number: NCA-RRD-213-04-252
Property Or Description Restricted Area: Migrated
Lead Division: STD
File Name Of Hyperlinked Legal Doc: U:\kermi\12121304252.pdf
Mapped Polygons Area In Acres: 1.0144
Mapped Polygons Area In Square Miles: 1.6000000000000001E-3
Date Data Entry Started: 08/05/2009
Date Data Entry Finished: 08/05/2009
Individual Or Staff Assoc With The Mapping: Nicholas Swartz
Program Used To Map Restricted Features: ArcInfo 9.3 and IcoMap 4.2
Date Legal Paperwork Stamped/Filed/Register Of Deeds: 06/22/1999
Commercial I Land Use Restriction: 0
Commercial Ii Land Use Restriction: 0
Commercial Iii Land Use Restriction: 1
Commercial Iv Land Use Restriction: 0
Industrial Land Use Restriction: 0
Residential Land Use Restriction: 0
Recreational Land Use Restriction: 0
Multiple Land-Use Restrictions: 0
Site Specific Restrictions: 0
Groundwater Consumption Restrictions: 0
Groundwater Contact Restrictions: 0
Special Well Construction Requirements: 0
Special Building Restrictions: 0
Excavation And Soil Movement Restrictions: 0
Soil Movement Requirements: 0
There Is A Restriction On All Construction: 0
Monitoring Well Protected, No Tampering Or Removal: 0
There Is An Exposure Barrier In Place: 0
There Is A Health And Safety Plan: 0
There Is A Permanent Marker On The Site: 0
Map Comments: Land restriction has not been mapped in kermi as of February 14, 2008. LUR is mapped in KERMIT as of 20090805 - Nick Swartz
Comment: Request received on 8/4/2004

BEA:

Secondary Address: Not reported
BEA Number: 20
District: Detroit

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JAX KAR WASH (Continued)

S105768190

Date Received: 10/01/1999
Submitter Name: U WASH INC
Petition Determination: Affirmed
Petition Disclosure: 1
Category: Same Hazardous Substance(s)
Determination 20107A: Affirmed
Reviewer: temppm
Division Assigned: Storage Tank Division

Secondary Address: Not reported
BEA Number: 799
District: Southeast MI
Date Received: 01/05/1999
Submitter Name: MAURICE MICKAM
Petition Determination: Denied
Petition Disclosure: 1
Category: Different Hazardous Substance(s)
Determination 20107A: Denied
Reviewer: temppm
Division Assigned: Storage Tank Division

WDS:

Site Id: MIG000027412
WMD Id: 449154
Site Specific Name: JAX KAR WASH
Mailing Address: 23831 GRAND RIVER AVE
Mailing City/State/Zip: 48219
Mailing County: WAYNE

M45
WSW
1/4-1/2
0.400 mi.
2113 ft.

JAX CAR WASH INC
23831 GRAND RIVER AVE
DETROIT, MI 48219
Site 2 of 2 in cluster M

LUST **U003319647**
UST **N/A**
INVENTORY

Relative:
Higher

LUST:

Actual:
630 ft.

Facility ID: 00001956
Source: STATE OF MICHIGAN
Owner Name: Jax Kar Wash
Owner Address: 23831 Grand River Ave
Owner City,St,Zip: Detroit, MI 48219-3001
Owner Contact: Not reported
Owner Phone: (313) 535-2211
Country: USA
District: Region 1 - SE Michigan District Office
Site Name: Jax Car Wash Inc
Latitude: 42.42335
Longitude: -83.27622
Date of Collection: 01/11/2001
Method of Collection: Address Matching-House Number
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Leak Number: C-0326-98

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JAX CAR WASH INC (Continued)

U003319647

Release Date: 04/27/1998
Substance Released: Gasoline
Release Status: Closed
Release Closed Date: 09/14/1999

UST:

Facility ID: 00001956
Facility Type: CLOSED
Owner Name: JAX KAR WASH
Owner Address: 23831 GRAND RIVER AVE
Owner City,St,Zip: DETROIT, MI 48219-3001
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (313) 535-2211
Contact: JANET GAGNON
Contact Phone: (248) 353-4700
Date of Collection: 01/11/2001
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number
Latitude: 42.42335
Longitude: -83.27622

Tank ID: 1
Tank Status: Removed from Ground
Capacity: 10000
Product: Gasoline
Install Date: 04/12/1970
Remove Date: 04/27/1998
Tank Release Detection: Tank Tightness Testing
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 2
Tank Status: Removed from Ground
Capacity: 10000
Product: Gasoline
Install Date: 04/12/1970
Remove Date: 04/27/1998
Tank Release Detection: Tank Tightness Testing
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

INVENTORY:

Bea Number: Not reported
Township: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

JAX CAR WASH INC (Continued)

U003319647

District: Southeast MI
 Data Source: Part 213
 Latitude: 42.42336
 Longitude: -83.27623

N46
WNW
1/4-1/2
0.404 mi.
2132 ft.

SERVICE STATION #5834
19100 TELEGRAPH ROAD
DETROIT, MI 48219

Site 1 of 2 in cluster N

AUL S110748290
INVENTORY N/A
BEA
WDS

Relative:
Higher

AUL:

Status: Recorded
 Site Name: Not reported
 Property: Service Station #5834
 Land Use Restriction Type: RC
 Program Type: Part 213
 Program Support Assigned User: Nicholas Ekel
 Program Support Assigned Date: 11/23/2010
 Legal Description Of Property: Migrated
 Based On The Deq Ref #: 11121305143
 MDEQ Reference Number: RC-RRD-213-05-143
 Property Or Description Restricted Area: Migrated
 Lead Division: STD
 File Name Of Hyperlinked Legal Doc: U:\KERMIT\11121305143.PDF
 Mapped Polygons Area In Acres: 0.44069999999999998
 Mapped Polygons Area In Square Miles: 5.9999999999999995E-4
 Date Data Entry Started: 08/11/2011
 Date Data Entry Finished: 08/11/2011
 Individual Or Staff Assoc With The Mapping: Nicholas Ekel
 Program Used To Map Restricted Features: ArcINFO 9.3 & IcoMAP 4.2
 Date Legal Paperwork Stamped/Filed/Register Of Deeds: 03/17/1997
 Commercial I Land Use Restriction: 0
 Commercial Ii Land Use Restriction: 0
 Commercial Iii Land Use Restriction: 1
 Commercial Iv Land Use Restriction: 0
 Industrial Land Use Restriction: 0
 Residential Land Use Restriction: 0
 Recreational Land Use Restriction: 0
 Multiple Land-Use Restrictions: 0
 Site Specific Restrictions: 1
 Groundwater Consumption Restrictions: 1
 Groundwater Contact Restrictions: 0
 Special Well Construction Requirements: 0
 Special Building Restrictions: 1
 Excavation And Soil Movement Restrictions: 1
 Soil Movement Requirements: 0
 There Is A Restriction On All Construction: 0
 Monitoring Well Protected, No Tampering Or Removal: 0
 There Is An Exposure Barrier In Place: 1
 There Is A Health And Safety Plan: 0
 There Is A Permanent Marker On The Site: 0
 Map Comments: 20101123 - LRUR is NOT mapped in KERMIT - Nick Ekel 20110811 - LRUR is mapped in KERMIT - Nick Ekel
 Comment: Request received on 8/25/2005

INVENTORY:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SERVICE STATION #5834 (Continued)

S110748290

Bea Number: Not reported
Township: Detroit
District: Southeast MI
Data Source: Part 201
Latitude: 42.42929
Longitude: -83.27728

BEA:

Secondary Address: Not reported
BEA Number: 4672
District: Southeast MI
Date Received: 01/10/2011
Submitter Name: Detroit 1 Investment, LLC
Petition Determination: No Request
Petition Disclosure: 0
Category: Not reported
Determination 20107A: No Request
Reviewer: schlaufj
Division Assigned: Storage Tank Division

WDS:

Site Id: MID985607928
WMD Id: 404684
Site Specific Name: AMOCO OIL CO 5834
Mailing Address: 19100 TELEGRAPH RD
Mailing City/State/Zip: 48219
Mailing County: WAYNE

**N47
WNW
1/4-1/2
0.404 mi.
2132 ft.**

**BP/AMOCO GAS STATION
19100 TELEGRAPH ROAD
WAYNE (County), MI 48219**

**INVENTORY S114031793
N/A**

Site 2 of 2 in cluster N

**Relative:
Higher**

INVENTORY:

Bea Number: 201104672LV
Township: Detroit
District: Southeast MI
Data Source: BEA
Latitude: 42.42929
Longitude: -83.27728

**Actual:
630 ft.**

**48
SE
1/4-1/2
0.405 mi.
2138 ft.**

**DETROIT PUBLIC SCHOOLS
18100 BENTLER ST
DETROIT, MI 48219**

**INVENTORY S111131802
WDS N/A**

**Relative:
Higher**

INVENTORY:

Bea Number: 201506432LV
Township: Detroit
District: Southeast MI
Data Source: BEA
Latitude: Not reported
Longitude: Not reported

**Actual:
635 ft.**

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DETROIT PUBLIC SCHOOLS (Continued)

S111131802

WDS:

Site Id: MID985602234
WMD Id: 404198
Site Specific Name: HOLCOMB ELEM SCHOOL
Mailing Address: 1425 E WARREN AVE
Mailing City/State/Zip: 48207
Mailing County: WAYNE

49
West
1/4-1/2
0.448 mi.
2364 ft.

MARATHON GAS STATION
19025 TELEGRAPH RD
DETROIT, MI 48174

LUST U003324057
UST N/A
INVENTORY
BEA
Financial Assurance
WDS

Relative:
Higher

LUST:

Facility ID: 00018194
Source: STATE OF MICHIGAN
Owner Name: RKA Petroleum Companies Inc
Owner Address: 28340 Wick Rd
Owner City,St,Zip: Romulus, MI 48174
Owner Contact: Not reported
Owner Phone: (734) 946-2199
Country: USA
District: Region 1 - SE Michigan District Office
Site Name: Marathon Gas Station
Latitude: 42.42823
Longitude: -83.27833
Date of Collection: 01/11/2001
Method of Collection: Address Matching-House Number
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Actual:
629 ft.

Leak Number: C-0147-11
Release Date: 05/23/2011
Substance Released: Diesel,Gasoline,Gasoline,Gasoline
Release Status: Open
Release Closed Date: Not reported

Leak Number: C-1622-90
Release Date: 08/23/1990
Substance Released: Not reported
Release Status: Closed
Release Closed Date: 09/21/1994

UST:

Facility ID: 00018194
Facility Type: ACTIVE
Owner Name: RKA PETROLEUM COMPANIES INC
Owner Address: 28340 WICK RD
Owner City,St,Zip: ROMULUS, MI 48174
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (734) 946-2199
Contact: Kari Elliott

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MARATHON GAS STATION (Continued)

U003324057

Contact Phone: (734) 946-2199
Date of Collection: 01/11/2001
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number
Latitude: 42.42823
Longitude: -83.27833

Tank ID: A
Tank Status: Removed from Ground
Capacity: 8000
Product: Gasoline
Install Date: 05/01/1970
Remove Date: 01/17/1991
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel,Cathodically Protected Steel
Impressed Device: No

Tank ID: B
Tank Status: Removed from Ground
Capacity: 8000
Product: Gasoline
Install Date: 05/01/1970
Remove Date: 01/17/1991
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel,Cathodically Protected Steel
Impressed Device: No

Tank ID: C
Tank Status: Removed from Ground
Capacity: 8000
Product: Diesel
Install Date: 05/01/1970
Remove Date: 01/17/1991
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel,Cathodically Protected Steel
Impressed Device: No

Tank ID: D
Tank Status: Removed from Ground
Capacity: 550

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MARATHON GAS STATION (Continued)

U003324057

Product: Used Oil
Install Date: 05/01/1970
Remove Date: 01/17/1991
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: G
Tank Status: Currently In Use
Capacity: 10000
Product: Diesel
Install Date: 09/01/1990
Remove Date: Not reported
Tank Release Detection: Inventory Control, Automatic Tank Gauging
Pipe Release Detection: Automatic Line Leak Detectors, Line Tightness Testing
Piping Material: Fiberglass Reinforced Plastic
Piping Type: Pressure
Construction Material: Fiberglass Reinforced Plastic
Impressed Device: No

Tank ID: H
Tank Status: Currently In Use
Capacity: 10000
Product: Gasoline
Install Date: 09/01/1990
Remove Date: Not reported
Tank Release Detection: Inventory Control, Automatic Tank Gauging
Pipe Release Detection: Automatic Line Leak Detectors, Line Tightness Testing
Piping Material: Fiberglass Reinforced Plastic
Piping Type: Pressure
Construction Material: Fiberglass Reinforced Plastic
Impressed Device: No

Tank ID: I
Tank Status: Currently In Use
Capacity: 10000
Product: Gasoline
Install Date: 09/01/1990
Remove Date: Not reported
Tank Release Detection: Inventory Control, Automatic Tank Gauging
Pipe Release Detection: Automatic Line Leak Detectors, Line Tightness Testing
Piping Material: Fiberglass Reinforced Plastic
Piping Type: Pressure
Construction Material: Fiberglass Reinforced Plastic
Impressed Device: No

Tank ID: J
Tank Status: Currently In Use
Capacity: 10000
Product: Gasohol

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MARATHON GAS STATION (Continued)

U003324057

Install Date: 09/01/1990
Remove Date: Not reported
Tank Release Detection: Inventory Control, Automatic Tank Gauging
Pipe Release Detection: Automatic Line Leak Detectors, Line Tightness Testing
Piping Material: Fiberglass Reinforced Plastic
Piping Type: Pressure
Construction Material: Fiberglass Reinforced Plastic
Impressed Device: No

Tank ID: K
Tank Status: Removed from Ground
Capacity: 550
Product: Used Oil
Install Date: 09/01/1990
Remove Date: 07/22/2008
Tank Release Detection: Manual Tank Gauging
Pipe Release Detection: Interstitial Monitoring Double Walled Piping
Piping Material: DIRECT FILL
Piping Type: Pressure, Pressure
Construction Material: Fiberglass Reinforced Plastic, Double Walled
Impressed Device: No

INVENTORY:

Bea Number: Not reported
Township: Not reported
District: Southeast MI
Data Source: Part 213
Latitude: 42.42823
Longitude: -83.27834

BEA:

Secondary Address: Not reported
BEA Number: 4849
District: Southeast MI
Date Received: 06/24/2011
Submitter Name: RKA Petroleum Companies, Inc.
Petition Determination: No Request
Petition Disclosure: 0
Category: Not reported
Determination 20107A: No Request
Reviewer: schlaufj
Division Assigned: Storage Tank Division

WDS:

Site Id: MIG000025397
WMD Id: 450359
Site Specific Name: CHRISTYS SERVICE
Mailing Address: 19025 TELEGRAPH RD
Mailing City/State/Zip: 48219
Mailing County: WAYNE

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

O50
WNW
1/4-1/2
0.457 mi.
2412 ft.

UNICLEAN DRY CLEANERS
19111 TELEGRAPH ROAD
DETROIT, MI 48219

AUL S115951280
N/A

Site 1 of 2 in cluster O

Relative:
Higher

AUL:

Actual:
628 ft.

Status:	Recorded
Site Name:	UNI Clean Dry Cleaners
Property:	on-site
Land Use Restriction Type:	RC
Program Type:	Part 201
Program Support Assigned User:	Nicholas Ekel
Program Support Assigned Date:	06/03/2014
Legal Description Of Property:	Not reported
Based On The Deq Ref #:	11120114011
MDEQ Reference Number:	RC-RRD-201-14-011
Property Or Description Restricted Area:	Not reported
Lead Division:	RD
File Name Of Hyperlinked Legal Doc:	U:\KERMIT\11120114011.PDF
Mapped Polygons Area In Acres:	2.4605000000000001
Mapped Polygons Area In Square Miles:	0.0038
Date Data Entry Started:	06/03/2014
Date Data Entry Finished:	06/03/2014
Individual Or Staff Assoc With The Mapping:	Nicholas Ekel
Program Used To Map Restricted Features:	ArcGIS 10.1
Date Legal Paperwork Stamped/Filed/Register Of Deeds:	05/28/2014
Commercial I Land Use Restriction:	0
Commercial Ii Land Use Restriction:	0
Commercial Iii Land Use Restriction:	0
Commercial Iv Land Use Restriction:	0
Industrial Land Use Restriction:	0
Residential Land Use Restriction:	1
Recreational Land Use Restriction:	0
Multiple Land-Use Restrictions:	0
Site Specific Restrictions:	0
Groundwater Consumption Restrictions:	0
Groundwater Contact Restrictions:	0
Special Well Construction Requirements:	0
Special Building Restrictions:	0
Excavation And Soil Movement Restrictions:	0
Soil Movement Requirements:	0
There Is A Restriction On All Construction:	0
Monitoring Well Protected, No Tampering Or Removal:	0
There Is An Exposure Barrier In Place:	0
There Is A Health And Safety Plan:	0
There Is A Permanent Marker On The Site:	0
Map Comments:	20140603 - LRUR is NOT mapped in KERMIT - Nick Ekel 20140603 - LRUR is mapped in KERMIT - Nick Ekel
Comment:	March 3, 2014 consultant requested DEQ reference #.

MAP FINDINGS

Map ID			EDR ID Number
Direction			EPA ID Number
Distance			
Elevation	Site	Database(s)	

051 WNW 1/4-1/2 0.459 mi. 2423 ft.	UNI CLEAN DRY CLEANERS 19145 TELEGRAPH ROAD DETROIT, MI 48219 Site 2 of 2 in cluster O	INVENTORY	S114031847 N/A
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Relative: Higher	INVENTORY: Bea Number: Not reported Township: Detroit District: Southeast MI Actual: 628 ft. Data Source: Part 201 Latitude: 42.43025 Longitude: -83.27844
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52 SSE 1/4-1/2 0.493 mi. 2603 ft.	FARMINGTON HILLS RESTAURANT SERVICESLLC 27831 ORCHARD LAKE ROAD OAKLAND (County), MI 48224	INVENTORY	S117440409 N/A
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Relative: Higher	INVENTORY: Bea Number: 201405917LV Township: Farmington Hills District: Southeast MI Actual: 632 ft. Data Source: BEA Latitude: Not reported Longitude: Not reported Bea Number: 201406244LV Township: Farmington Hills District: Southeast MI Data Source: BEA Latitude: Not reported Longitude: Not reported
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53 East 1/2-1 0.686 mi. 3620 ft.	MNK SERVICES 20545 W 7 MILE RD DETROIT, MI 48219	BROWNFIELDS PART 201	S107136048 N/A
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Relative: Higher	BROWNFIELDS: Facility ID: 00034048 Region: 1 Actual: 640 ft. Status: Not reported Property Use: Not reported BEA: Not reported Ernie Id Number: 82001839
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Actual: 640 ft.	PART 201: Facility ID: 82001839 Facility Status: See Leaking Underground Storage Tank Site Database Source: Gasoline Service Station SAM Score: 27 SAM Score Date: 07/01/2004 Township: Not reported Range: Not reported Section: Not reported
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Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MNK SERVICES (Continued)

S107136048

Quarter: Not reported
Quarter/Quarter: Not reported
Pollutants: Not reported

Count: 2 records.

ORPHAN SUMMARY

<u>City</u>	<u>EDR ID</u>	<u>Site Name</u>	<u>Site Address</u>	<u>Zip</u>	<u>Database(s)</u>
DETROIT	U003330208	ALLA BP INC	19100 TELEGRAPH & 7 MILE RD	48219	LUST, UST, INVENTORY, Financial Assurance
PONTIAC	1003871097	FONS J & CO	6451 E MCNICHOLS ST	48033	SEMS-ARCHIVE

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 05/30/2017	Source: EPA
Date Data Arrived at EDR: 06/08/2017	Telephone: N/A
Date Made Active in Reports: 09/15/2017	Last EDR Contact: 11/03/2017
Number of Days to Update: 99	Next Scheduled EDR Contact: 01/15/2018
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 05/30/2017	Source: EPA
Date Data Arrived at EDR: 06/09/2017	Telephone: N/A
Date Made Active in Reports: 09/15/2017	Last EDR Contact: 11/03/2017
Number of Days to Update: 98	Next Scheduled EDR Contact: 01/15/2018
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 08/15/2011
Number of Days to Update: 56	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 05/30/2017	Source: EPA
Date Data Arrived at EDR: 06/09/2017	Telephone: N/A
Date Made Active in Reports: 09/15/2017	Last EDR Contact: 11/03/2017
Number of Days to Update: 98	Next Scheduled EDR Contact: 01/15/2018
	Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/07/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/05/2017	Telephone: 703-603-8704
Date Made Active in Reports: 04/07/2017	Last EDR Contact: 10/06/2017
Number of Days to Update: 92	Next Scheduled EDR Contact: 01/15/2018
	Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 07/11/2017	Source: EPA
Date Data Arrived at EDR: 07/21/2017	Telephone: 800-424-9346
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 11/03/2017
Number of Days to Update: 77	Next Scheduled EDR Contact: 01/29/2018
	Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 07/11/2017	Source: EPA
Date Data Arrived at EDR: 07/28/2017	Telephone: 800-424-9346
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 11/03/2017
Number of Days to Update: 70	Next Scheduled EDR Contact: 01/29/2018
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/13/2017	Source: EPA
Date Data Arrived at EDR: 09/26/2017	Telephone: 800-424-9346
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 09/26/2017
Number of Days to Update: 10	Next Scheduled EDR Contact: 01/08/2018
	Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 09/13/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/26/2017	Telephone: 312-886-6186
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 09/26/2017
Number of Days to Update: 10	Next Scheduled EDR Contact: 01/08/2018
	Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/13/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/26/2017	Telephone: 312-886-6186
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 09/26/2017
Number of Days to Update: 10	Next Scheduled EDR Contact: 01/08/2018
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 09/13/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/26/2017	Telephone: 312-886-6186
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 09/26/2017
Number of Days to Update: 10	Next Scheduled EDR Contact: 01/08/2018
	Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/13/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/26/2017	Telephone: 312-886-6186
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 09/26/2017
Number of Days to Update: 10	Next Scheduled EDR Contact: 01/08/2018
	Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/22/2017	Source: Department of the Navy
Date Data Arrived at EDR: 06/13/2017	Telephone: 843-820-7326
Date Made Active in Reports: 09/15/2017	Last EDR Contact: 11/08/2017
Number of Days to Update: 94	Next Scheduled EDR Contact: 02/26/2018
	Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 08/10/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/30/2017	Telephone: 703-603-0695
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 08/30/2017
Number of Days to Update: 44	Next Scheduled EDR Contact: 12/11/2017
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 08/10/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/30/2017	Telephone: 703-603-0695
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 08/30/2017
Number of Days to Update: 44	Next Scheduled EDR Contact: 12/11/2017
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/18/2017

Source: National Response Center, United States Coast Guard

Date Data Arrived at EDR: 09/21/2017

Telephone: 202-267-2180

Date Made Active in Reports: 10/13/2017

Last EDR Contact: 09/21/2017

Number of Days to Update: 22

Next Scheduled EDR Contact: 01/08/2018

Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

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

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

Date of Government Version: N/A

Source: Dept of Environmental Quality

Date Data Arrived at EDR: 10/31/2013

Telephone: 517-284-5103

Date Made Active in Reports: 11/20/2013

Last EDR Contact: 10/20/2017

Number of Days to Update: 20

Next Scheduled EDR Contact: 02/05/2018

Data Release Frequency: No Update Planned

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

SWF/LF: Solid Waste Facilities Database

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 06/28/2017

Source: Dept of Environmental Quality

Date Data Arrived at EDR: 06/29/2017

Telephone: 517-335-4035

Date Made Active in Reports: 09/26/2017

Last EDR Contact: 10/27/2017

Number of Days to Update: 89

Next Scheduled EDR Contact: 01/08/2018

Data Release Frequency: Semi-Annually

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank Sites

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 06/30/2017

Source: Dept of Environmental Quality

Date Data Arrived at EDR: 07/18/2017

Telephone: 517-373-9837

Date Made Active in Reports: 07/19/2017

Last EDR Contact: 10/05/2017

Number of Days to Update: 1

Next Scheduled EDR Contact: 11/27/2017

Data Release Frequency: Annually

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/01/2017

Source: EPA Region 8

Date Data Arrived at EDR: 07/27/2017

Telephone: 303-312-6271

Date Made Active in Reports: 10/13/2017

Last EDR Contact: 10/27/2017

Number of Days to Update: 78

Next Scheduled EDR Contact: 02/05/2018

Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/13/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/24/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/07/2016
Date Data Arrived at EDR: 01/26/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 99

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 11/07/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Quarterly

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/26/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/14/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 98

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Semi-Annually

State and tribal registered storage tank lists

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017	Source: FEMA
Date Data Arrived at EDR: 05/30/2017	Telephone: 202-646-5797
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 10/13/2017
Number of Days to Update: 136	Next Scheduled EDR Contact: 01/22/2018
	Data Release Frequency: Varies

UST: Underground Storage Tank Facility List

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 10/21/2016	Source: Department of Licensing & Regulatory Affairs
Date Data Arrived at EDR: 02/16/2017	Telephone: 517-373-1820
Date Made Active in Reports: 05/03/2017	Last EDR Contact: 08/29/2017
Number of Days to Update: 76	Next Scheduled EDR Contact: 11/27/2017
	Data Release Frequency: Annually

UST 2: Underground Storage Tank Listing

A listing of underground storage tank site locations that have unknown owner information.

Date of Government Version: 10/18/2016	Source: Department of Licensing & Regulatory Affairs
Date Data Arrived at EDR: 10/21/2016	Telephone: 517-373-1820
Date Made Active in Reports: 01/30/2017	Last EDR Contact: 10/11/2017
Number of Days to Update: 101	Next Scheduled EDR Contact: 01/29/2018
	Data Release Frequency: Annually

AST: Aboveground Tanks

Registered Aboveground Storage Tanks.

Date of Government Version: 08/14/2017	Source: Department of Licensing & Regulatory Affairs
Date Data Arrived at EDR: 08/15/2017	Telephone: 517-373-1820
Date Made Active in Reports: 10/05/2017	Last EDR Contact: 08/11/2017
Number of Days to Update: 51	Next Scheduled EDR Contact: 11/27/2017
	Data Release Frequency: No Update Planned

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/14/2017	Source: EPA, Region 1
Date Data Arrived at EDR: 07/27/2017	Telephone: 617-918-1313
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 10/27/2017
Number of Days to Update: 71	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/14/2016	Source: EPA Region 4
Date Data Arrived at EDR: 01/27/2017	Telephone: 404-562-9424
Date Made Active in Reports: 05/05/2017	Last EDR Contact: 10/27/2017
Number of Days to Update: 98	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/26/2017	Source: EPA Region 5
Date Data Arrived at EDR: 07/27/2017	Telephone: 312-886-6136
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 10/27/2017
Number of Days to Update: 71	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/01/2016	Source: EPA Region 6
Date Data Arrived at EDR: 01/26/2017	Telephone: 214-665-7591
Date Made Active in Reports: 05/05/2017	Last EDR Contact: 10/27/2017
Number of Days to Update: 99	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 05/02/2017	Source: EPA Region 7
Date Data Arrived at EDR: 07/27/2017	Telephone: 913-551-7003
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 10/27/2017
Number of Days to Update: 71	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/01/2017	Source: EPA Region 8
Date Data Arrived at EDR: 07/27/2017	Telephone: 303-312-6137
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 10/27/2017
Number of Days to Update: 78	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/13/2017	Source: EPA Region 9
Date Data Arrived at EDR: 07/27/2017	Telephone: 415-972-3368
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 10/27/2017
Number of Days to Update: 78	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/25/2017	Source: EPA Region 10
Date Data Arrived at EDR: 07/27/2017	Telephone: 206-553-2857
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 10/27/2017
Number of Days to Update: 78	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

AUL: Engineering and Institutional Controls

A listing of sites with institutional and/or engineering controls in place.

Date of Government Version: 08/25/2017

Source: Dept of Environmental Quality

Date Data Arrived at EDR: 08/25/2017

Telephone: 517-373-4828

Date Made Active in Reports: 09/26/2017

Last EDR Contact: 08/24/2017

Number of Days to Update: 32

Next Scheduled EDR Contact: 12/11/2017

Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015

Source: EPA, Region 1

Date Data Arrived at EDR: 09/29/2015

Telephone: 617-918-1102

Date Made Active in Reports: 02/18/2016

Last EDR Contact: 09/25/2017

Number of Days to Update: 142

Next Scheduled EDR Contact: 01/08/2018

Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008

Source: EPA, Region 7

Date Data Arrived at EDR: 04/22/2008

Telephone: 913-551-7365

Date Made Active in Reports: 05/19/2008

Last EDR Contact: 04/20/2009

Number of Days to Update: 27

Next Scheduled EDR Contact: 07/20/2009

Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Brownfields and USTfield Site Database

All state funded Part 201 and 213 sites, as well as LUST sites that have been redeveloped by private entities using the BEA process. Be aware that this is not a list of all of the potential brownfield sites in Michigan.

Date of Government Version: 01/15/2016

Source: Dept of Environmental Quality

Date Data Arrived at EDR: 02/02/2016

Telephone: 517-373-4805

Date Made Active in Reports: 04/04/2016

Last EDR Contact: 10/27/2017

Number of Days to Update: 62

Next Scheduled EDR Contact: 02/05/2018

Data Release Frequency: Varies

BROWNFIELDS 2: Brownfields Building and Land Site Locations

A listing of brownfield building and land site locations. The listing is a collaborative effort of Michigan Economic Development Corporation, Michigan Economic Developers Association, Detroit Edison, Detroit Area Commercial Board of Realtors

Date of Government Version: 04/09/2007

Source: Economic Development Corporation

Date Data Arrived at EDR: 04/10/2007

Telephone: 888-522-0103

Date Made Active in Reports: 05/01/2007

Last EDR Contact: 08/24/2017

Number of Days to Update: 21

Next Scheduled EDR Contact: 12/11/2017

Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/19/2017
Date Data Arrived at EDR: 06/20/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/20/2017
Next Scheduled EDR Contact: 01/01/2018
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

HIST LF: Inactive Solid Waste Facilities

The database contains historical information and is no longer updated.

Date of Government Version: 03/01/1997
Date Data Arrived at EDR: 02/28/2003
Date Made Active in Reports: 03/06/2003
Number of Days to Update: 6

Source: Dept of Environmental Quality
Telephone: 517-335-4034
Last EDR Contact: 02/28/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWRCY: Recycling Facilities

A listing of recycling center locations.

Date of Government Version: 09/25/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 2

Source: Dept of Environmental Quality
Telephone: 517-241-5719
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 10/30/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 10/20/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Services, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 07/13/2017	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 09/06/2017	Telephone: 202-307-1000
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 08/30/2017
Number of Days to Update: 30	Next Scheduled EDR Contact: 12/11/2017
	Data Release Frequency: No Update Planned

PART 201: Part 201 Site List

A Part 201 Listed site is a location that has been evaluated and scored by the DEQ using the Part 201 scoring model. The location is or includes a "facility" as defined by Part 201, where there has been a release of a hazardous substance(s) in excess of the Part 201 residential criteria, and/or where corrective actions have not been completed under Part 201 to meet the applicable cleanup criteria for unrestricted residential use. The Part 201 List does not include all of the sites of contamination that are subject to regulation under Part 201 because owners are not required to inform the DEQ about the sites and can pursue cleanup independently. Sites of environmental contamination that are not known to DEQ are not on the list, nor are sites with releases that resulted in low environmental impact.

Date of Government Version: 10/01/2013	Source: Department of Environmental Quality
Date Data Arrived at EDR: 10/03/2014	Telephone: 517-284-5103
Date Made Active in Reports: 10/03/2014	Last EDR Contact: 10/20/2017
Number of Days to Update: 0	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: No Update Planned

INVENTORY: Inventory of Facilities

The Inventory of Facilities has three data sources: Facilities under Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA) identified through state funded or private party response activities (Projects); Facilities under Part 213, Leaking Underground Storage Tanks of the NREPA; and Facilities identified through submittals of Baseline Environmental Assessments (BEA) submitted pursuant to Part 201 or Part 213 of the NREPA. The Part 201 Projects Inventory does not include all of the facilities that are subject to regulation under Part 201 because owners are not required to inform the Department of Environmental Quality (DEQ) about the facilities and can pursue cleanup independently. Facilities that are not known to DEQ are not on the Inventory, nor are locations with releases that resulted in low environmental impact. Part 213 facilities listed here may have more than one release; a list of releases for which corrective actions have been completed and list of releases for which corrective action has not been completed is located on the Leaking Underground Storage Tanks Site Search webpage. The DEQ may or may not have reviewed and concurred with the conclusion that the corrective actions described in a closure report meets criteria. A BEA is a document that new or prospective property owners/operations disclose to the DEQ identifying the property as a facility pursuant to Part 201 and Part 213. The Inventory of BEA Facilities overlaps in part with the Part 201 Projects facilities and Part 213 facilities. There may be more than one BEA for each facility.

Date of Government Version: 07/25/2017	Source: Department of Environmental Quality
Date Data Arrived at EDR: 07/26/2017	Telephone: 517-284-5136
Date Made Active in Reports: 09/27/2017	Last EDR Contact: 10/25/2017
Number of Days to Update: 63	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Quarterly

CDL: Clandestine Drug Lab Listing

A listing of clandestine drug lab locations.

Date of Government Version: 12/31/2016	Source: Department of Community Health
Date Data Arrived at EDR: 02/17/2017	Telephone: 517-373-3740
Date Made Active in Reports: 04/18/2017	Last EDR Contact: 10/23/2017
Number of Days to Update: 60	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DEL PART 201: Delisted List of Contaminated Sites

A delisted site has been removed from the Part 201 List because information known to the DEQ at the time of the evaluation does not support inclusion on the Part 201 List. This designation is often applied to sites where changes in cleanup criteria resulted in a determination that the site no longer exceeds any applicable cleanup criterion.

A delisted site has been removed from the Part 201 List because response actions have reduced the levels of contaminants to concentrations which meet or are below the criteria for unrestricted residential use.

Date of Government Version: 08/01/2013	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 08/01/2013	Telephone: 517-373-9541
Date Made Active in Reports: 09/11/2013	Last EDR Contact: 10/20/2017
Number of Days to Update: 41	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Varies

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 07/13/2017	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 09/06/2017	Telephone: 202-307-1000
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 08/30/2017
Number of Days to Update: 30	Next Scheduled EDR Contact: 12/11/2017
	Data Release Frequency: Quarterly

Local Land Records

LIENS: Lien List

An Environmental Lien is a charge, security, or encumbrance upon title to a property to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of hazardous substances or petroleum products upon a property, including (but not limited to) liens imposed pursuant to CERCLA 42 USC * 9607(1) and similar state or local laws. In other words: a lien placed upon a property's title due to an environmental condition

Date of Government Version: 07/25/2017	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 08/08/2017	Telephone: 517-241-7603
Date Made Active in Reports: 09/26/2017	Last EDR Contact: 10/20/2017
Number of Days to Update: 49	Next Scheduled EDR Contact: 01/29/2018
	Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 07/11/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/26/2017	Telephone: 202-564-6023
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 11/03/2017
Number of Days to Update: 79	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 09/21/2017	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 09/21/2017	Telephone: 202-366-4555
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 09/21/2017
Number of Days to Update: 22	Next Scheduled EDR Contact: 01/08/2018
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PEAS: Pollution Emergency Alerting System

Environmental pollution emergencies reported to the Department of Environmental Quality such as tanker accidents, pipeline breaks, and release of reportable quantities of hazardous substances.

Date of Government Version: 09/11/2017	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 09/19/2017	Telephone: 517-373-8427
Date Made Active in Reports: 09/27/2017	Last EDR Contact: 10/23/2017
Number of Days to Update: 8	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Quarterly

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 09/13/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/26/2017	Telephone: 312-886-6186
Date Made Active in Reports: 10/06/2017	Last EDR Contact: 09/26/2017
Number of Days to Update: 10	Next Scheduled EDR Contact: 01/08/2018
	Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 07/08/2015	Telephone: 202-528-4285
Date Made Active in Reports: 10/13/2015	Last EDR Contact: 08/25/2017
Number of Days to Update: 97	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 10/13/2017
Number of Days to Update: 62	Next Scheduled EDR Contact: 01/22/2018
	Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005	Source: U.S. Geological Survey
Date Data Arrived at EDR: 02/06/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 10/11/2017
Number of Days to Update: 339	Next Scheduled EDR Contact: 01/22/2018
	Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 11/27/2017
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 05/10/2017
Date Data Arrived at EDR: 05/17/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 121

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 11/01/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 11/06/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 11/09/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 09/22/2017
Next Scheduled EDR Contact: 01/01/2018
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 133

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 08/23/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/27/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 09/27/2017
Date Data Arrived at EDR: 10/12/2017
Date Made Active in Reports: 10/20/2017
Number of Days to Update: 8

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 02/01/2017
Date Data Arrived at EDR: 02/09/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 10/23/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 10/17/2014	Telephone: 202-564-6023
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 11/03/2017
Number of Days to Update: 3	Next Scheduled EDR Contact: 02/19/2018
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/01/2017	Source: EPA
Date Data Arrived at EDR: 06/09/2017	Telephone: 202-566-0500
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 10/13/2017
Number of Days to Update: 126	Next Scheduled EDR Contact: 01/22/2018
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/23/2016	Telephone: 202-564-2501
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 10/11/2017
Number of Days to Update: 79	Next Scheduled EDR Contact: 01/22/2018
	Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 09/08/2016	Telephone: 301-415-7169
Date Made Active in Reports: 10/21/2016	Last EDR Contact: 10/16/2017
Number of Days to Update: 43	Next Scheduled EDR Contact: 11/20/2017
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 08/07/2009	Telephone: 202-586-8719
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 10/03/2017
Number of Days to Update: 76	Next Scheduled EDR Contact: 12/18/2017
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/10/2014	Telephone: N/A
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 09/08/2017
Number of Days to Update: 40	Next Scheduled EDR Contact: 12/18/2017
	Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/19/2011	Telephone: 202-566-0517
Date Made Active in Reports: 01/10/2012	Last EDR Contact: 10/26/2017
Number of Days to Update: 83	Next Scheduled EDR Contact: 02/05/2018
	Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 10/02/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/05/2017	Telephone: 202-343-9775
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 10/05/2017
Number of Days to Update: 8	Next Scheduled EDR Contact: 01/15/2018
	Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 10/31/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2017
Date Data Arrived at EDR: 08/03/2017
Date Made Active in Reports: 10/20/2017
Number of Days to Update: 78

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 09/25/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 09/21/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/11/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 12/23/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 02/17/2017
Number of Days to Update: 52

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 11/02/2017
Next Scheduled EDR Contact: 02/19/2018
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 10/10/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 05/30/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 98

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 11/03/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 07/31/2017
Date Data Arrived at EDR: 08/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 44

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 08/30/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 09/01/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 09/01/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/25/2017
Date Data Arrived at EDR: 09/26/2017
Date Made Active in Reports: 10/20/2017
Number of Days to Update: 24

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 09/25/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/23/2017
Date Data Arrived at EDR: 09/06/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 9

Source: EPA
Telephone: (312) 353-2000
Last EDR Contact: 09/06/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 10/25/2016
Date Data Arrived at EDR: 06/02/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 133

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 10/16/2017
Next Scheduled EDR Contact: 01/29/2018
Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 02/13/2017
Date Data Arrived at EDR: 02/15/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 261

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 09/21/2017
Next Scheduled EDR Contact: 12/11/2017
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 09/02/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/06/2017	Telephone: 202-564-2280
Date Made Active in Reports: 10/20/2017	Last EDR Contact: 09/06/2017
Number of Days to Update: 44	Next Scheduled EDR Contact: 12/18/2017
	Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/17/2017	Source: EPA
Date Data Arrived at EDR: 08/17/2017	Telephone: 800-385-6164
Date Made Active in Reports: 09/15/2017	Last EDR Contact: 08/17/2017
Number of Days to Update: 29	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: Quarterly

AIRS: Permit and Emissions Inventory Data

Permit and emissions inventory data.

Date of Government Version: 09/28/2017	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 10/02/2017	Telephone: 517-373-7074
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 09/18/2017
Number of Days to Update: 11	Next Scheduled EDR Contact: 01/01/2018
	Data Release Frequency: Annually

ASBESTOS: Asbestos Notification Listing

Asbestos

Date of Government Version: 07/31/2017	Source: Department of Licensing & Regulatory Affairs
Date Data Arrived at EDR: 08/10/2017	Telephone: 517-284-7699
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 11/01/2017
Number of Days to Update: 64	Next Scheduled EDR Contact: 12/11/2017
	Data Release Frequency: Quarterly

BEA: Baseline Environmental Assessment Database

A BEA is a document that new or prospective property owners/operations disclose to the DEQ identifying the property as a facility pursuant to Part 201 and Part 213. The Inventory of BEA Facilities overlaps in part with the Part 201 Projects facilities and Part 213 facilities. There may be more than one BEA for each facility.

Date of Government Version: 08/21/2013	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 08/23/2013	Telephone: 517-373-9541
Date Made Active in Reports: 09/12/2013	Last EDR Contact: 11/08/2017
Number of Days to Update: 20	Next Scheduled EDR Contact: 02/26/2018
	Data Release Frequency: No Update Planned

COAL ASH: Coal Ash Disposal Sites

Coal fired power plants in Southeast Michigan that have coal ash handling on site.

Date of Government Version: 10/20/2016	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 02/02/2017	Telephone: 586-753-3754
Date Made Active in Reports: 04/20/2017	Last EDR Contact: 09/28/2017
Number of Days to Update: 77	Next Scheduled EDR Contact: 01/15/2018
	Data Release Frequency: Varies

DRYCLEANERS: Drycleaning Establishments

A listing of drycleaning facilities in Michigan.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/20/2017
Date Data Arrived at EDR: 10/20/2017
Date Made Active in Reports: 10/24/2017
Number of Days to Update: 4

Source: Dept of Environmental Quality
Telephone: 517-335-4586
Last EDR Contact: 10/16/2017
Next Scheduled EDR Contact: 01/29/2018
Data Release Frequency: Quarterly

Financial Assurance 1: Financial Assurance Information Listing

Financial assurance information.

Date of Government Version: 10/04/2017
Date Data Arrived at EDR: 10/06/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 7

Source: Dept of Environmental Quality
Telephone: 517-335-6610
Last EDR Contact: 09/28/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Semi-Annually

FINANCIAL ASSURANCE 3: Financial Assurance Information Listing

Financial assurance information for underground storage tank facilities.

Date of Government Version: 08/24/2017
Date Data Arrived at EDR: 08/24/2017
Date Made Active in Reports: 10/27/2017
Number of Days to Update: 64

Source: Department of Licensing & Regulatory Affairs
Telephone: 517-335-7279
Last EDR Contact: 09/28/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 01/05/2011
Date Data Arrived at EDR: 01/07/2011
Date Made Active in Reports: 02/14/2011
Number of Days to Update: 38

Source: Dept of Environmental Quality
Telephone: 517-335-4034
Last EDR Contact: 09/25/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Varies

LEAD CERT: Lead Safe Housing Registry

A listing of Michigan properties included in the Lead Safe Housing Registry.

Date of Government Version: 09/15/2015
Date Data Arrived at EDR: 09/16/2015
Date Made Active in Reports: 09/30/2015
Number of Days to Update: 14

Source: Department of Community Health
Telephone: 517-335-9699
Last EDR Contact: 08/31/2017
Next Scheduled EDR Contact: 12/18/2017
Data Release Frequency: Quarterly

NPDES: List of Active NPDES Permits

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

Date of Government Version: 10/27/2016
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 04/20/2017
Number of Days to Update: 104

Source: Dept of Environmental Quality
Telephone: 517-241-1300
Last EDR Contact: 10/05/2017
Next Scheduled EDR Contact: 01/15/2018
Data Release Frequency: Varies

UIC: Underground Injection Wells Database

A listing of underground injection well locations. The UIC Program is responsible for regulating the construction, operation, permitting, and closure of injection wells that place fluids underground for storage or disposal.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 11/08/2016
Date Made Active in Reports: 01/30/2017
Number of Days to Update: 83

Source: Dept of Environmental Quality
Telephone: 517-241-1515
Last EDR Contact: 10/23/2017
Next Scheduled EDR Contact: 02/05/2018
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

WDS: Waste Data System

The Waste Data System (WDS) tracks activities at facilities regulated by the Solid Waste, Scrap Tire, Hazardous Waste, and Liquid Industrial Waste programs.

Date of Government Version: 02/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/20/2017
Number of Days to Update: 76

Source: Dept of Environmental Quality
Telephone: 517-284-6562
Last EDR Contact: 08/21/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historic Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historic Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA PART 201: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

Date of Government Version: N/A	Source: Department of Environmental Quality
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 12/24/2013	Last EDR Contact: 06/01/2012
Number of Days to Update: 176	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

Date of Government Version: N/A	Source: Department of Environmental Quality
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 01/13/2014	Last EDR Contact: 06/01/2012
Number of Days to Update: 196	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

Date of Government Version: N/A	Source: Department of Environmental Quality
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 12/24/2013	Last EDR Contact: 06/01/2012
Number of Days to Update: 176	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013	Source: Department of Energy & Environmental Protection
Date Data Arrived at EDR: 08/19/2013	Telephone: 860-424-3375
Date Made Active in Reports: 10/03/2013	Last EDR Contact: 08/18/2017
Number of Days to Update: 45	Next Scheduled EDR Contact: 11/27/2017
	Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2016	Source: Department of Environmental Protection
Date Data Arrived at EDR: 04/11/2017	Telephone: N/A
Date Made Active in Reports: 07/27/2017	Last EDR Contact: 10/05/2017
Number of Days to Update: 107	Next Scheduled EDR Contact: 01/22/2018
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 07/31/2017
Date Data Arrived at EDR: 08/03/2017
Date Made Active in Reports: 10/12/2017
Number of Days to Update: 70

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 11/01/2017
Next Scheduled EDR Contact: 02/12/2018
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 07/25/2017
Date Made Active in Reports: 09/25/2017
Number of Days to Update: 62

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 10/16/2017
Next Scheduled EDR Contact: 01/29/2018
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 08/21/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 04/13/2017
Date Made Active in Reports: 07/14/2017
Number of Days to Update: 92

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 09/11/2017
Next Scheduled EDR Contact: 12/25/2017
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Day Care Centers, Group & Family Homes

Source: Bureau of REgulatory Services

Telephone: 517-373-8300

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory

Source: Department of Natural Resources

Telephone: 517-241-2254

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK[®] - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

ROGELL PROPERTY
18600 BERG ROAD
DETROIT, MI 48219

TARGET PROPERTY COORDINATES

Latitude (North):	42.426789 - 42° 25' 36.44"
Longitude (West):	83.263301 - 83° 15' 47.88"
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	313806.9
UTM Y (Meters):	4699431.5
Elevation:	622 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	6067816 REDFORD, MI
Version Date:	2014
East Map:	6067818 ROYAL OAK, MI
Version Date:	2014

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

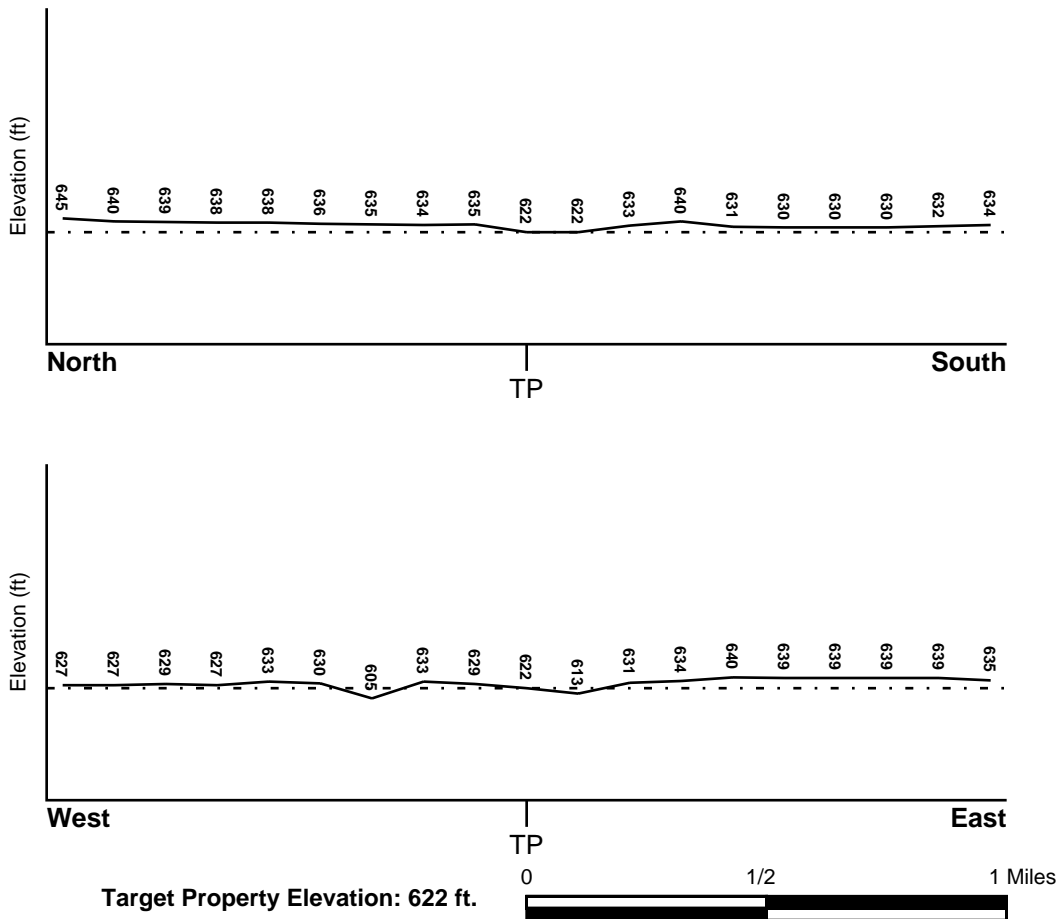
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
26163C0067E	FEMA FIRM Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
26163C0100E	FEMA FIRM Flood data
26163C0060E	FEMA FIRM Flood data
26163C0066E	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
REDFORD	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
1	1/2 - 1 Mile ENE	Not Reported
1G	1/2 - 1 Mile ENE	Not Reported

For additional site information, refer to Physical Setting Source Map Findings.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era: Paleozoic
System: Mississippian
Series: Osagean and Kinderhookian Series
Code: M1 (*decoded above as Era, System & Series*)

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 5102888.2s



- ★ Target Property
- SSURGO Soil
- Water



SITE NAME: Rogell Property
ADDRESS: 18600 Berg Road
Detroit MI 48219
LAT/LONG: 42.426789 / 83.263301

CLIENT: Soil & Materials Engineers Inc
CONTACT: Matt Vander Eide
INQUIRY #: 5102888.2s
DATE: November 10, 2017 7:47 am

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Kibbie

Soil Surface Texture: fine sandy loam

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

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 46 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 7.3 Min: 5.6
2	9 inches	37 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.8 Min: 5.6
3	37 inches	59 inches	stratified fine sand to silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 8.4 Min: 7.4

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 2

Soil Component Name: Pella

Soil Surface Texture: stratified silt loam to silty clay loam

Hydrologic Group: Class B/D - Drained/undrained hydrology class of soils that can be drained and are classified.

Soil Drainage Class: Poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	35 inches	59 inches	stratified silt loam to silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 8.4 Min: 7.4
2	0 inches	16 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.8 Min: 6.1
3	16 inches	25 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.8 Min: 6.6
4	25 inches	35 inches	stratified silt to silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 8.4 Min: 7.4

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 3

Soil Component Name: Selfridge

Soil Surface Texture: loamy sand

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

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 46 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 5.6
2	9 inches	24 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 5.1
3	24 inches	29 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 141 Min: 42	Max: 7.8 Min: 5.6
4	29 inches	59 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.4

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 4

Soil Component Name: Tedrow

Soil Surface Texture: loamy fine sand

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

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 46 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	loamy fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 5.6
2	9 inches	22 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 5.6
3	22 inches	46 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 6.6
4	46 inches	59 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42 Min: 14	Max: 8.4 Min: 6.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 5

Soil Component Name: Made land

Soil Surface Texture: loamy fine sand

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

Soil Drainage Class:
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

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

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

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

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

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

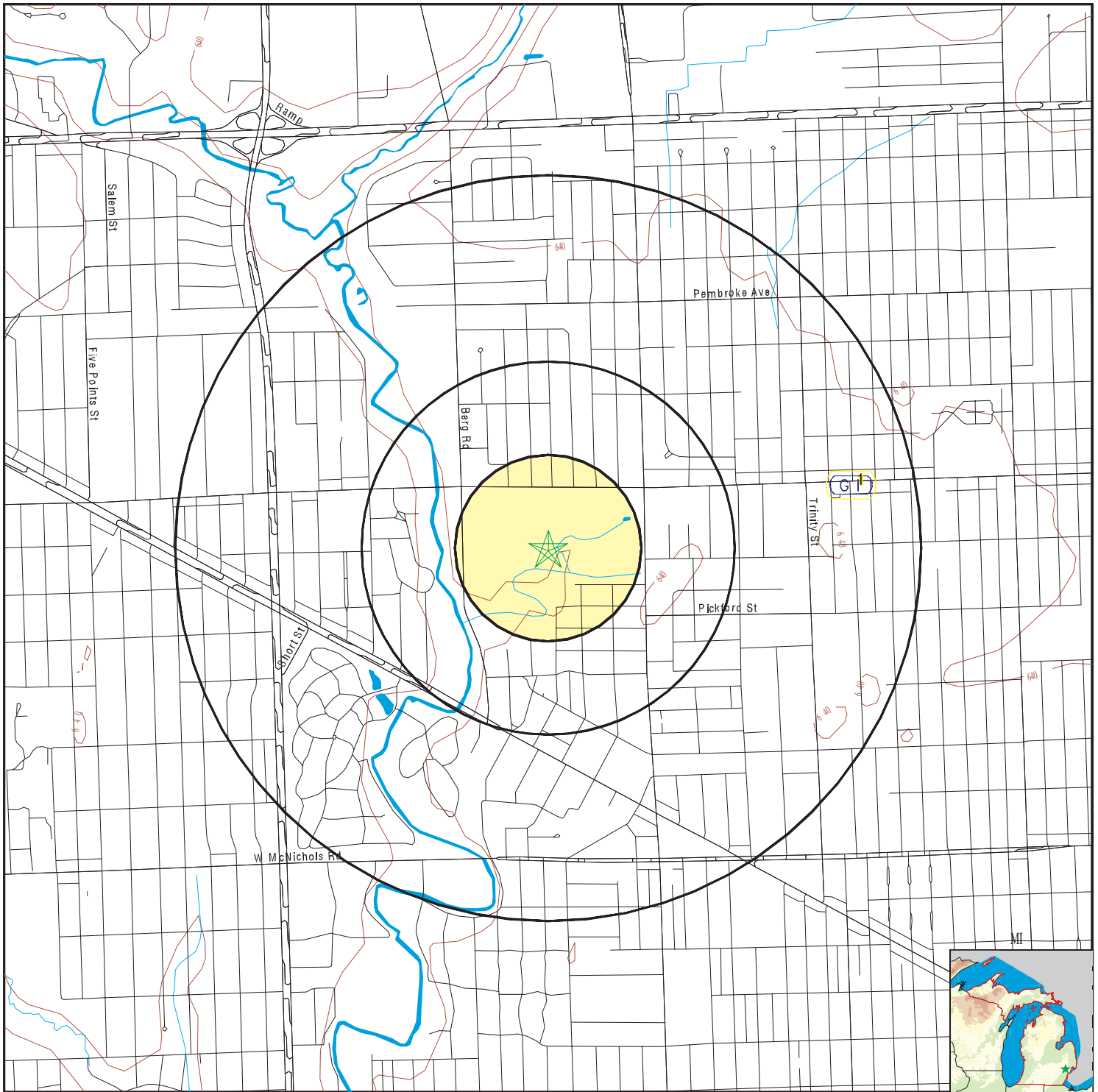
MAP ID

WELL ID

LOCATION
FROM TP

No Wells Found

PHYSICAL SETTING SOURCE MAP - 5102888.2s



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



- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells



SITE NAME: Rogell Property
 ADDRESS: 18600 Berg Road
 Detroit MI 48219
 LAT/LONG: 42.426789 / 83.263301

CLIENT: Soil & Materials Engineers Inc
 CONTACT: Matt Vander Eide
 INQUIRY #: 5102888.2s
 DATE: November 10, 2017 7:47 am

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

1	Site ID:	826890		
ENE	Groundwater Flow:	Not Reported		
1/2 - 1 Mile	Shallowest Water Table Depth:	6.24	AQUIFLOW	34926
Higher	Deepest Water Table Depth:	7.58		
	Average Water Table Depth:	Not Reported		
	Date:	10/24/1994		

1G	Site ID:	826890		
ENE	Groundwater Flow:	Not Reported		
1/2 - 1 Mile	Shallowest Water Table Depth:	6.24	AQUIFLOW	34926
Lower	Deepest Water Table Depth:	7.58		
	Average Water Table Depth:	Not Reported		
	Date:	10/24/1994		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: MI Radon

Radon Test Results

Zipcode	Test Date	LT Sign	Result
48219	10/29/2009		1.6
48219	9/8/2007		1.6
48219	5/28/2007		1.5
48219	10/26/2009		1.4
48219	4/11/2009		1.2
48219	9/26/2007		1.1
48219	12/12/2001		1.0
48219	11/2/2009		1.1
48219	2/7/2006		1.0
48219	6/9/2007		1.0
48219	6/9/2008		1.0
48219	11/10/2007		1.0
48219	3/17/2008		1.7
48219	11/14/2007		1.7
48219	9/22/2006		1.7
48219	11/6/2008		1.7
48219	7/31/2006		0.5
48219	2/25/2008		0.5
48219	11/27/2006	<	0.3
48219	8/20/2007		0.5
48219	4/19/2003	<	0.3
48219	7/12/2008	<	0.3
48219	3/6/2007	<	0.3
48219	1/23/2007		0.7
48219	2/13/2006		0.7
48219	11/20/2006		0.6
48219	3/13/2008		0.6
48219	2/7/2006		0.8
48219	10/18/2008		0.8
48219	10/31/2007		0.9
48219	2/22/1999		0.5
48219	8/3/2007		2.5
48219	12/2/1998		2.2
48219	1/21/2009	<	0.3
48219	7/20/2009	<	0.3
48219	9/4/2007		2.0

Federal EPA Radon Zone for WAYNE County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

Federal Area Radon Information for Zip Code: 48219

Number of sites tested: 4

<u>Area</u>	<u>Average Activity</u>	<u>% <4 pCi/L</u>	<u>% 4-20 pCi/L</u>	<u>% >20 pCi/L</u>
Living Area - 1st Floor	Not Reported	Not Reported	Not Reported	Not Reported
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	0.725 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory

Source: Department of Natural Resources

Telephone: 517-241-2254

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Data

Source: Department of Environmental Quality

Telephone: 517-335-9218

The data in this file was obtained from Wellogic, the Michigan Department of Environmental Quality Statewide Groundwater Database (SGWD). Wellogic contains approximately 425,000 water well records found within the State of Michigan, and although it represents the best available data, it cannot be considered a complete database of all the wells or well records in existence.

OTHER STATE DATABASE INFORMATION

Michigan Oil and Gas Wells

Source: Department of Environmental Quality

Telephone: 517-241-1528

Locations of oil and gas wells are compiled from permit records on file at the Geological Survey Division (GSD), Michigan Department of Natural Resources.

RADON

State Database: MI Radon

Source: Department of Environmental Quality

Telephone: 517-335-9551

Radon Test Results

Michigan Radon Test Results

Source: Department of Environmental Quality

Telephone: 517-335-8037

These results are from test kits distributed by the local health departments and used by Michigan residents. There is no way of knowing whether the devices were used properly, whether there are duplicates (or repeat verification) test (i.e., more than one sample per home), etc.

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

STREET AND ADDRESS INFORMATION

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**LEAKING UNDERGROUND STORAGE TANK
CLOSURE REPORT**

INSTRUCTIONS: COMPLETION OF THIS REPORT WITH ALL APPLICABLE INFORMATION IS MANDATORY. The Certified Underground Storage Tank Professional (CP) MUST sign below. Failure to submit this report within the stated time period may result in Administrative Penalties as provided for in Part 213, Section 21321 of Act 451, P.A. 1994 as amended.

FACILITY NAME: Rogell Golf Course

FACILITY ID NUMBER: 0-019067

ADDRESS: 18601 Berg Rd.
Detroit, Michigan 48219 COUNTY: Wayne

MERA SITE ID NUMBER:

DATE(S) RELEASE DISCOVERED:
5/6/99

CONFIRMED RELEASE NUMBER(S):

O/O NAME: City of Detroit

MUSTFA CLAIM NUMBER:

O/O ADDRESS: 65 Cadillac Square, Suite 1000, Detroit, MI 48226

CONTACT PERSON: Ms. Denise McClung

PHONE NUMBER: 313 224 - 9409

ANSWER ALL QUESTIONS. (DO NOT LEAVE BLANKS):

- Has the UST been emptied? Yes No (If no, explain why):
- Free product present: a. Currently? YES NO If YES, total gallons recovered since last report:
b. Previously? YES NO If YES, total gallons recovered to date:
- Have vapors been identified in any confined spaces (basement, sewers)? YES NO
- State the number of homes where drinking water is or was affected as a result of a release from this facility: NONE KNOWN
- Estimated distance and direction from point of release to nearest:
a. Private well: NOT KNOWN b. Municipal well: NOT KNOWN c. Surface water/wetland: Rouge River approx. 1000' to the West
- Since last report: a. cubic yards of soil remediated: 95 b. gallons of groundwater remediated: None
- Totals to date: a. cubic yards of soil remediated: 95 b. gallons of groundwater remediated: None
- Michigan RBCA Site Classification (1-4): 4

CERTIFICATION OF REPORT COMPLETION

I, the undersigned CP, hereby attest to the best of my knowledge and belief that the statements in this document and all attachments are true, accurate and complete. I certify that it was submitted to the USTD on (date submitted-Required)

Brian Smits 6/24/99
CP Original Signature - Required Date

Brian S. Smits, P.E.
PRINT QC Project Manager's Name

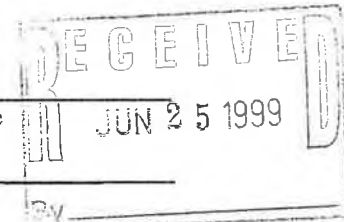
Brian S. Smits, P.E.
PRINT CP's Name

NTH Consultants, Ltd.
CONSULTANT

277 Gratiot, Ste. 600, Detroit MI. 48228
ADDRESS

313 965 - 0036
TELEPHONE NO.

313 965 - 0683
FAX NO.



CERTIFICATION OF CLOSURE

- Type of RBCA Evaluation: Tier 1 Tier 2 Tier 3
- Closure report based on which type of land use?: Residential Commercial III Commercial IV Industrial
- Institutional Controls: None Notice of Corrective Action Restrictive Covenant

I certify under penalty of law that corrective actions associated with the above referenced release at this facility were completed in accordance with Part 213, Act 451, P.A. 1994 as amended, and current departmental guidance and procedures available at this time.

I further certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.

Brian Smits
CP Signature - Required

6/24/99
Date

TABLE OF CONTENTS

<u>SECTION</u> <u>PAGE</u>	<u>TITLE</u>	
	COVER SHEET	
	FACILITY AND OWNER OR OPERATOR INFORMATION	
	SITE QUESTIONS	
	REPORT CERTIFICATION	
	MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY - USD DISTRICT OFFICES AND CONTACTS	2 of 11
	TABLE OF CONTENTS	3 of 11
	LIST OF ATTACHMENTS	4 of 11
1.0	PROJECT CHRONOLOGY	5 of 11
2.0	DE MINIMIS CLASSIFICATION	5 of 11
3.0	SUMMARY OF CORRECTIVE ACTION ACTIVITIES PERFORMED	5 of 11
3.1	RELEASE REPORTING	5 of 11
3.2	IMMEDIATE RESPONSE ACTION IMPLEMENTATION	5 of 11
3.3	FREE PRODUCT DISCOVERY AND REMOVAL	6 of 11
3.4	SITE ASSESSMENT ACTIVITIES	6 of 11
3.5	SITE CLASSIFICATION	7 of 11
3.6	TIERED EVALUATIONS AND CLEANUP GOALS	7 of 11
3.7	PUBLIC NOTICE	8 of 11
3.8	NOTICE OF CORRECTIVE ACTION, DECLARATION OF RESTRICTIVE COVENANT, AND OTHER RESTRICTIVE MECHANISMS	8 of 11
3.9	PERMITS	8 of 11
3.10	CORRECTIVE ACTIONS	8 of 11
3.11	PERFORMANCE MONITORING	9 of 11
4.0	CLOSURE VERIFICATION SAMPLING	9 of 11
4.1	VERIFICATION OF SOIL REMEDIATION	9 of 11
4.2	VERIFICATION OF GROUNDWATER REMEDIATION	10 of 11
4.3	VERIFICATION OF REMEDIATION FOR OTHER MEDIA	11 of 11

LIST OF ATTACHMENTS

(Include as Required and Check Box if Attached)

Attachments 1 - 6, 9 and 12 are to be submitted if applicable.

Attachments 7, 8, 10, 11, 13 and 14 are found in the back of this document and should be completed and submitted when necessary to certify closure.

ATTACHMENT NUMBER	DESCRIPTION
------------------------------	--------------------

- | | |
|---|--|
| 1. <input type="checkbox"/> | Schematic Drawing of the Remedial System |
| 2. <input type="checkbox"/> | Public Notification Document(s) |
| 3. <input type="checkbox"/> | Permission of Property Owner to File a Notice of Corrective Action |
| 4. <input type="checkbox"/> | Permission of Property Owner to File a Notice of Restrictive Covenant |
| 5. <input checked="" type="checkbox"/> | Site Map Showing the Extent of the Former Soil Contamination and the Soil Verification Sampling Locations |
| 6. <input checked="" type="checkbox"/> | Excavation Drawing Showing Soil Verification Sampling Locations |
| 7. <input checked="" type="checkbox"/> | Data Table Showing All Soil Verification Sampling Results (Laboratory) |
| 8. <input checked="" type="checkbox"/> | Comparison Table for Soil Verification |
| 9. <input checked="" type="checkbox"/> | Site Map Showing the Extent of the Former Groundwater Contamination and the Groundwater Verification Sampling Locations (see attachment 5) |
| 10. <input checked="" type="checkbox"/> | Data Table Showing All Groundwater Verification Sampling Results (Laboratory) |
| 11. <input checked="" type="checkbox"/> | Comparison Table for Groundwater Verification |
| 12. <input type="checkbox"/> | Site Map Showing the Extent of the Former Other Media Contamination and the Other Media Verification Sampling Locations |
| 13. <input type="checkbox"/> | Data Table Showing All Other Media Verification Sampling Results (Laboratory) |
| 14. <input type="checkbox"/> | Comparison Table for Other Media Verification |
| 15. <input checked="" type="checkbox"/> | Sections 1.1, items C through J, and sections 4.1, 4.2 and 4.3 (if appropriate) of MDEQ Leaking Underground Storage Tank Initial Assessment Report |

1.0 PROJECT CHRONOLOGY

A. Date Suspected Release Discovered and Reported:	<u>04 / 27 / 99</u>
B. Date Confirmed Release Report Submitted:	<u>05 / 06 / 99</u>
C. Date Initial Assessment Report Submitted:	<u>NA</u>
D. Date Final Assessment Report Submitted:	<u>NA</u>
E. Completion of Site Restoration:	<u>05 / 27 / 99</u>
F. Date Closure Report Submitted:	<u>06 / 25 / 99</u>

2.0 DE MINIMIS CLASSIFICATION

A. Was this a *de minimis* spill as defined in Section 324.21302(e)? Yes No

NOTE: If "Yes", complete questions "B" and "C" below and only the following remaining sections of this Closure Report: 3.1, 3.2, 3.6, 4.1, and the Cover Sheet Certification.

B. Volume of soil remediated or disposed to date: 95 yds³
C. Disposal facility name(s) and location(s): Woodland Meadows RDF, 5900 Hamman Rd., Wayne, MI 48184.

3.0 SUMMARY OF CORRECTIVE ACTION ACTIVITIES PERFORMED

Summarize the overall program and the primary components of the corrective action performed at the facility by addressing each project phase identified below that was relevant to this site and its remediation. Include a schematic drawing of the remedial system (Attachment No. 1). Attach additional sheets, if necessary.

3.1 RELEASE REPORTING

A. List the source(s) of the release and the location(s) where contamination was first discovered:
There was no immediate evidence of contamination at the site though a suspected release was reported due to a small ¼" diameter hole located near the bottom of the tank. Analytical results later confirmed very low BTEX concentrations in a groundwater sample taken from the floor of the excavation immediately below the tank. As such, the suspected release was upgraded to a confirmed release on May 6, 1999. The analytical results on all soil samples collected were non-detect for unleaded gasoline parameters.

3.2 IMMEDIATE RESPONSE ACTION IMPLEMENTATION

A. Date Began: 04 / 27 / 99
B. Date Completed: 04 / 27 / 99
C. List the initial response actions performed (*excluding free product removal*): On April 27, 1999 the 550-gallon gasoline UST was emptied prior to removal and disposal. Approximately 95 yd³ (in-place measure) of soil surrounding the UST system were also removed and disposed at a licensed facility.

3.3 FREE PRODUCT DISCOVERY AND REMOVAL

A. Was free product discovered? Yes No

If "No", skip to Section 3.4; if "Yes", complete questions "B" through "G"

3.4 SITE ASSESSMENT ACTIVITIES

A. Date Initial Assessment Began: 04 / 27 / 99

B. Date Initial Assessment Completed: 05 / 27 / 99

C. Check the environmental media sampled and analyzed during this phase of investigation:
(Check all that apply)

- Soil Air Sediments Other *Specify*):
 Groundwater Surface Water Biota _____

D. Briefly describe the sampling and analysis performed during the initial assessment phase for each medium checked above: Four soil samples were taken from the side walls of the excavation and one soil sample was taken from the piping near the dispenser. A groundwater sample was taken from the floor of the excavation below the former 550-gallon gasoline UST. The locations of each soil sample and the groundwater sample are shown on Attachment 5. Each confirmatory sample was analyzed for the presence of benzene, toluene, ethyl benzene, and xylene (BTEX constituents), trimethyl benzene (TMB) isomers, methyl-tert-butyl ether (MTBE), naphthalene, and 2-methylnaphthalene, in accordance with MDEQ guidance for unleaded gasoline UST closure.

E. Date Final Assessment Began: NA

F. Date Final Assessment Completed: NA

G. Check the environmental media sampled and analyzed during this phase of investigation:
(Check all that apply)

- Soil Air Sediments Other *Specify*):
 Groundwater Surface Water Biota _____

H. Briefly describe the additional sampling and analysis performed during the final assessment phase for each medium checked above: No Final Assessment Investigation was required

I. Briefly describe and explain any differences between the Work Plan submitted with the Initial Assessment Report and the site characterization work performed: Not Applicable

3.5 SITE CLASSIFICATION

- A. Date of Initial Classification: 04 / 27 / 99
 B. Initial Classification Level:
 Class 1 Class 2 Class 3 Class 4
 C. Date of Most Recent Reclassification (if any): NA
 D. Most Recent Reclassification Level:
 Class 1 Class 2 Class 3 Class 4
 E. Briefly describe the justification for any reclassifications: _____

3.6 TIERED EVALUATIONS AND CLEANUP GOALS

- A. What levels of evaluation were performed for this site?
 (Check all that apply)
 Tier I Tier II Tier III
 B. If a Tier II or Tier III evaluation was performed, describe the most significant alternate assumptions, models, or site-specific information used in place of the default assumptions, models, or model parameters: Not Applicable.
 C. What was the ultimate basis for the cleanup goals established for this facility?
 (Check only those that apply)

	ON-SITE			OFF-SITE		
	Soil	Groundwater	Other Media	Soil	Groundwater	Other Media
RESIDENTIAL	<input checked="" type="checkbox"/> Tier I <input type="checkbox"/> Tier II <input type="checkbox"/> Tier III	<input checked="" type="checkbox"/> Tier I <input type="checkbox"/> Tier II <input type="checkbox"/> Tier III	<input type="checkbox"/> Tier II <input type="checkbox"/> Tier III	<input checked="" type="checkbox"/> Tier I <input type="checkbox"/> Tier II <input type="checkbox"/> Tier III	<input checked="" type="checkbox"/> Tier I <input type="checkbox"/> Tier II <input type="checkbox"/> Tier III	<input type="checkbox"/> Tier II <input type="checkbox"/> Tier III
COMMERCIAL III	<input type="checkbox"/> Tier I <input type="checkbox"/> Tier II <input type="checkbox"/> Tier III	<input type="checkbox"/> Tier I <input type="checkbox"/> Tier II <input type="checkbox"/> Tier III	<input type="checkbox"/> Tier II <input type="checkbox"/> Tier III	<input type="checkbox"/> Tier I <input type="checkbox"/> Tier II <input type="checkbox"/> Tier III	<input type="checkbox"/> Tier I <input type="checkbox"/> Tier II <input type="checkbox"/> Tier III	<input type="checkbox"/> Tier II <input type="checkbox"/> Tier III
COMMERCIAL IV	<input type="checkbox"/> Tier I <input type="checkbox"/> Tier II <input type="checkbox"/> Tier III	<input type="checkbox"/> Tier I <input type="checkbox"/> Tier II <input type="checkbox"/> Tier III	<input type="checkbox"/> Tier II <input type="checkbox"/> Tier III	<input type="checkbox"/> Tier I <input type="checkbox"/> Tier II <input type="checkbox"/> Tier III	<input type="checkbox"/> Tier I <input type="checkbox"/> Tier II <input type="checkbox"/> Tier III	<input type="checkbox"/> Tier II <input type="checkbox"/> Tier III
INDUSTRIAL	<input type="checkbox"/> Tier I <input type="checkbox"/> Tier II <input type="checkbox"/> Tier III	<input type="checkbox"/> Tier I <input type="checkbox"/> Tier II <input type="checkbox"/> Tier III	<input type="checkbox"/> Tier II <input type="checkbox"/> Tier III	<input type="checkbox"/> Tier I <input type="checkbox"/> Tier II <input type="checkbox"/> Tier III	<input type="checkbox"/> Tier I <input type="checkbox"/> Tier II <input type="checkbox"/> Tier III	<input type="checkbox"/> Tier II <input type="checkbox"/> Tier III

NOTE: If the site meets the Tier I criteria without any corrective action and the release was *de minimus*, complete Sections 4.1, 4.2 and the Cover Sheet Certification

3.7 PUBLIC NOTICE

If implementation of the corrective action plan will result in anything other than unrestricted land use or unlimited resource use, notice must be provided to the public directly impacted by the release and the planned corrective action.

A. Will implementation of the corrective action plan result in any restrictions to land use or limitations on resource use? Yes No

If "No", skip to Section 3.9; if "Yes", continue with question "B" below.

3.9 PERMITS

A. List all discharge permits required for the corrective action:

Type of Permit	Permit No.	Application Date	Approval Date
None Required			

3.10 CORRECTIVE ACTIONS

A. Description of activities performed: Approximately 95 yd³ (in-place measure) of potentially contaminated soil surrounding the 550-gallon UST system was excavated and disposed at a licensed landfill. Additionally, approximately 100 gallons of waste product (gasoline and tank rinsate water) was disposed at Usher Oil in Detroit, MI. Following removal of the waste products, the UST was cleaned and disposed at a licensed facility.

B. Was the corrective action implemented as outlined in the Corrective Action Plan section of the Final Assessment Report? Yes No

C. If "No", summarize the changes and provide justification for why these changes were necessary. (Attach additional sheets, if necessary): No Final Assessment Report was required for this site.

3.11 PERFORMANCE MONITORING

- A. Date Performance Monitoring Began: NA
- B. Date Performance Monitoring Completed: NA
- C. Describe the types of monitoring activities performed, and the media and parameters monitored: No performance monitoring was required.

4.0 CLOSURE VERIFICATION SAMPLING

- A. Date Corrective Action Plan Implemented: NA
- B. Date Corrective Actions Completed: NA

4.1 VERIFICATION OF SOIL REMEDIATION

- A. Was the MDEQ guidance document "Verification of Soil Remediation Guidance Document" (Attachment No. 25 of the "Guidance Document for Risk-Based Corrective Action at Leaking Underground Storage Tanks") used to prepare the soil verification sampling plan?
 Yes No
- B. If "No", provide an explanation: _____
- C. If "Yes", under what category did the site fall? "Small Site" "Medium or Large Site"
- D. Describe the soil verification sampling strategy applied at the site by providing the following. (Attach additional sheets, as necessary):
- I Scaled site map (Attachment No. 5) which identifies the former extent of the soil contamination, and the soil verification sampling locations relative to existing site features. (Multiple chemical contaminants and multiple sample depths should be addressed on the minimum number of site maps needed to convey the information with clarity and legibility).
- II For a corrective action involving excavation, a scaled drawing(s) (Attachment No. 6) showing the floor and walls of the excavation and the associated sampling locations. The drawing should also depict the subsurface stratigraphy, soil types, fractures, discolored soil locations, and adjoining conduits or potential migration pathways, as appropriate.
- E. Describe how the number of samples collected for soil verification purposes was established:
Four confirmatory wall samples, one confirmatory piping/dispenser sample, and one confirmatory groundwater sample were taken based on MDEQ Part 213 closure requirements. The calculated floor and wall surface areas for the excavation, along with Table 1 and Table 2 from Attachment No. 25, were used to establish the minimum number of required confirmatory samples.
- F. List the analytical parameters used to verify the soil remediation: The soil samples collected were analyzed for benzene, toluene, ethyl benzene, and xylene (BTEX constituents), trimethyl benzene (TMB) isomers, methyl-tert-butyl ether (MTBE), naphthalene, and 2-methylnaphthalene in accordance with the MDEQ-STD Operational Memorandum No. 14 (June 12, 1998) for unleaded gasoline USTs.

4.1 VERIFICATION OF SOIL REMEDIATION (Continued)

G. Were all soil verification samples analyzed, preserved, and handled in accordance with the USTD guidance document entitled "Guidance for Parameters, Analytical Methods, Sample Handling, Quality Control, and Cleanup Limits for Petroleum Hydrocarbon Releases" (Attachment No. 12 of the "Guidance Document for Risk-Based Corrective Action at Leaking Underground Storage Tanks")?
✓ Yes No

H. If "No", provide an explanation for any differences: _____

I. Attach data tables presenting the analytical results of all on-site and off-site soil verification sampling performed in the attached Laboratory Results table format (Attachment No. 7). Include all pertinent sample results submitted previously with the Initial Assessment Report or Final Assessment Report. (NOTE: The USTD may request copies of the laboratory data sheets, chain of custody forms, and all available QA/QC information relating to these verification samples.)

J. Attach a Comparison Table for Soil Verification (Attachment No. 8) to demonstrate that the established target cleanup levels have been attained in accordance with the applicable MDEQ/USTD closure guidance.

K. Total volume of soil remediated or disposed to date: 95 yd³ (in-place measure)

L. Disposal facility name(s) and location(s): Woodland Meadows RDF, 5900 Hannan Rd., Wayne, MI 48184.

4.2 VERIFICATION OF GROUNDWATER REMEDIATION

A. Was the USTD "Groundwater and Soil Closure Guidance" (Attachment No. 26 of the "Guidance Document for Risk-Based Corrective Action at Leaking Underground Storage Tanks") used to prepare the groundwater verification sampling plan?
✓ Yes No

B. If "No", provide an explanation:

Describe the groundwater verification sampling strategy applied at the site by answering questions "C" through "G". (Attach additional sheets, as necessary):

C. Attach a scaled site map (Attachment No. 9) that identifies the former extent of the groundwater contamination and the groundwater verification sampling locations relative to existing site features. (Multiple chemical contaminants and multiple aquifer/sample depths should be addressed on the minimum number of site maps needed to convey the information with clarity and legibility.)

D. Describe how the sampling frequency and duration of sampling used for groundwater verification purposes was established: Not Applicable

4.2 VERIFICATION OF GROUNDWATER REMEDIATION (Continued)

E. List the analytical parameters used to verify the groundwater remediation, and the justification for their selection: The groundwater sample collected from the floor of the excavation immediately below the tank was analyzed for: benzene, toluene, ethyl benzene, and xylene (BTEX constituents), trimethyl benzene (TMB) isomers, methyl-tert-butyl ether (MTBE), naphthalene, and 2-methylnaphthalene, in accordance with the MDEQ-STD Operational Memorandum No. 14 (June 12, 1998) for unleaded gasoline USTs.

F. Were all groundwater verification samples analyzed, preserved, and handled in accordance with the USTD guidance document entitled "Guidance for Parameters, Analytical Methods, Sample Handling, Quality Control, and Cleanup Limits for Petroleum Hydrocarbon Releases" (Attachment No. 12 of the "Guidance Document for Risk-based Corrective Action at Leaking Underground Storage Tanks")?
 Yes No

G. If "No", provide an explanation for any differences: Not Applicable

H. Attach data tables presenting the analytical results of all on-site and off-site groundwater verification sampling performed in the attached Laboratory Results table format (Attachment No. 10). Include applicable sample results submitted previously with the Initial Assessment Report or Final Assessment Report. (NOTE: The USTD may request copies of laboratory data sheets, chain of custody forms, and all available QA/QC information relating to these verification samples.)

I. Attach a Comparison Table for Groundwater Verification (Attachment No. 11) to demonstrate that the established target cleanup levels have been attained in accordance with the applicable MDEQ/USTD closure guidance.

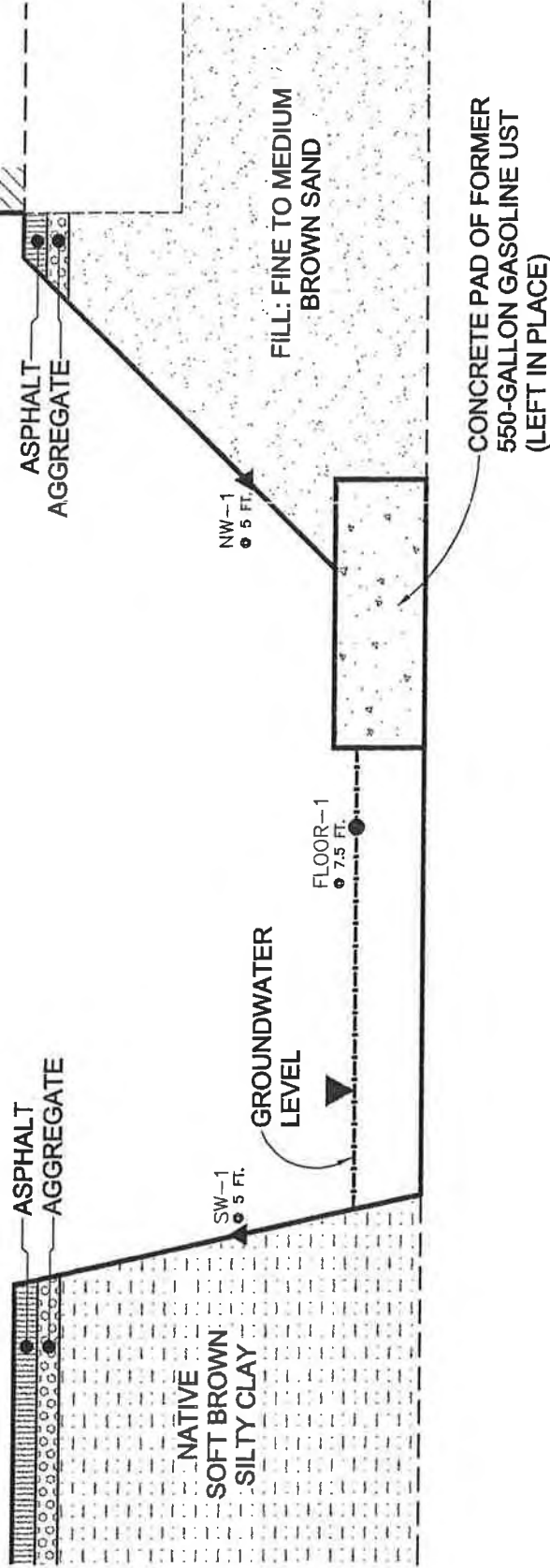
For corrective actions involving the operation of a groundwater treatment system, answer questions "J" through "N". Otherwise, skip to question "O".

O. Were the target cleanup levels met for at least one sampling event? Yes No

P. If "No", provide an explanation: Not Applicable

4.3 VERIFICATION OF REMEDIATION FOR OTHER MEDIA

A. Was the corrective action for this site implemented for any media other than soil or groundwater?
 Yes No



LEGEND

- ▲ CONFIRMATORY SOIL SAMPLE COLLECTED BY NTH CONSULTANTS, LTD. ON APRIL 27, 1999
- CONFIRMATORY GROUNDWATER SAMPLE COLLECTED BY NTH CONSULTANTS, LTD. ON APRIL 27, 1999

NTH **NTH Consultants, Ltd.**
 Professional Engineering & Environmental Services
 Detroit, Michigan

EXCAVATION CROSS SECTION A-A

DPW - ROGELL GOLF COURSE
 DETROIT, MICHIGAN

PROJECT No.: 34-4249-65	DRAWN BY: SHB	DATE: 05-05-99	PLATE No.:
SCALE: 1" = 4'	CHECKED BY: BST	SHEET: 1 OF 1	2

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY - STORAGE TANK DIVISION
 CLOSURE REPORT (Continued)

Attachment No. 7 (Page 1 of 1)
 Soil Verification Sampling Results
 Facility Name: Rogell Golf Course
 Facility Number: 0-019067

Unleaded Gasoline Parameters (ug/kg)															
SAMPLE ID	SAMPLE DEPTH	COLLECTION DATE	EXTRACTION DATE	ANALYSIS DATE	ANALYTICAL METHOD	NW-1		SW-1		EW-1		WW-1		Piping/Dispenser	
						CONC.	MDL	CONC.	MDL	CONC.	MDL	CONC.	MDL	CONC.	MDL
MTBE						ND	250	ND	250	ND	250	ND	250	ND	250
Benzene						ND	50	ND	50	ND	50	ND	50	ND	50
Toluene						ND	50	ND	50	ND	50	ND	50	ND	50
Ethylbenzene						ND	50	ND	50	ND	50	ND	50	ND	50
Total Xylenes						ND	150	ND	150	ND	150	ND	150	ND	150
1,2,4-Trimethylbenzene						ND	50	ND	50	ND	50	ND	50	ND	50
1,3,5-Trimethylbenzene						ND	50	ND	50	ND	50	ND	50	ND	50
2-Methylnaphthalene						ND	250	ND	250	ND	250	ND	250	ND	250
Naphthalene						ND	250	ND	250	ND	250	ND	250	ND	250

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY - STORAGE TANK DIVISION
 CLOSURE REPORT (Continued)

Attachment No. 8 (Page 1 of 1)
 Comparison Table For Soil Verification
 Facility Name: Rogell Golf Course
 Facility Number: 0-019067

Land Use Residential Commercial III Commercial IV

PARAMETER	Maximum Concentration	Sample ID of Max. Conc.	Residential Criteria	
			Direct Contact	SVIIC ¹
<input type="checkbox"/> MTBE	ND ²	--	850,000	6,000,000
<input type="checkbox"/> Benzene	ND	--	88,000	1,600
<input type="checkbox"/> Toluene	ND	--	250,000	250,000
<input type="checkbox"/> Ethylbenzene	ND	--	140,000	140,000
<input type="checkbox"/> Total Xylenes	ND	--	150,000	150,000
<input type="checkbox"/> 1,2,4-Trimethylbenzene	ND	--	110,000	110,000
<input type="checkbox"/> 1,3,5-Trimethylbenzene	ND	--	94,000	94,000
<input type="checkbox"/> 2-Methylnaphthalene	ND	--	15,000,000	ID ³
<input type="checkbox"/> Naphthalene	ND	--	15,000,000	42,000,000

Notes:

¹ SVIIC = Soil Volatilization to Indoor Air Inhalation Criteria

² ND = Not Detected

³ ID = Insufficient Data to Develop Criteria

All concentrations reported as ug/kg

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY - STORAGE TANK DIVISION
 CLOSURE REPORT (Continued)

Attachment No. 10 (Page 1 of 1)
 Groundwater Verification Sampling Results
 Facility Name: Rogell Golf Course
 Facility Number: 0-019067

Unleaded Gasoline Parameters (ug/L)									
SAMPLE ID	Floor								
SAMPLE DEPTH	7.5'								
COLLECTION DATE	4/27/99								
EXTRACTION DATE	5/5/99								
ANALYSIS DATE	5/5/99								
COLLECTION METHOD	Grab								
ANALYTICAL METHOD	8020								
PARAMETER	CONC.	MDL							
MTBE	ND	10							
Benzene	17	1							
Toluene	45.0	1							
Ethylbenzene	3	1							
Total Xylenes	15	3							
1,2,4-Trimethylbenzene	ND	1							
1,3,5-Trimethylbenzene	8	1							
Naphthalene	ND	5							
2-Methylnaphthalene	ND	5							

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY - STORAGE TANK DIVISION
 CLOSURE REPORT (Continued)

Attachment No. 11 (Page 1 of 1)
 Comparison Table For Groundwater Verification
 Facility Name: Rogell Golf Course
 Facility Number: 0-01906Z

Land Use Residential Commercial III Commercial IV

PARAMETER	Maximum Concentration	Sample ID of Max. Conc.	Residential Criteria		GSI ³
			GVIIIC ¹	GCC ²	
<input type="checkbox"/> MTBE	ND ⁴	--	47,000,000	650,000	730
<input checked="" type="checkbox"/> Benzene	17	Floor	5,600	9,400	200
<input checked="" type="checkbox"/> Toluene	45	Floor	175,000	175,000	140
<input checked="" type="checkbox"/> Ethylbenzene	3	Floor	530,000	530,000	18
<input checked="" type="checkbox"/> Total Xylenes	15	Floor	190,000	190,000	35
<input type="checkbox"/> 1,2,4-Trimethylbenzene	ND	--	56,000	160,000	ID ⁵
<input checked="" type="checkbox"/> 1,3,5-Trimethylbenzene	8	Floor	61,000	210,000	ID
<input type="checkbox"/> 2-Methylnaphthalene	ND	--	ID	32,000	ID
<input type="checkbox"/> Naphthalene	ND	--	31,000	31,000	13

Notes:

¹ GVIIIC = Groundwater Volatilization to Indoor Air Inhalation Criteria

² GCC = Groundwater Direct Contact Criteria

³ GSI = Groundwater Surface Water Interface Criteria

⁴ ND = Not Detected

⁵ ID = Insufficient Data to Determine Protective Criteria

All concentrations reported as ug/L

ATTACHMENT NO. 15
SECTIONS 1.1, ITEMS C THROUGH J, 4.1,4.2 AND 4.3
OF CLOSURE REPORT

1.0 IMMEDIATE RESPONSE TO SPILLS AND RELEASES

1.1 REPORTING AND RESPONSE TO RELEASES

C. From what portion of the underground storage tank system did the release occur or is the release believed to have likely occurred?

- Piping
- Underground storage tank
- Overfill of underground storage tank (delivery of fuel from supplier)
- Other (*Specify*): _____

D. Briefly describe how the release was discovered: A small hole, approximately 1/4" in diameter, was discovered on the bottom of the UST.

E. Has there been tank tightness testing performed in response to this release? (*If data is not available, answer "No"*)

- Yes
- No

If "Yes", complete questions F, G and H; otherwise skip to question I.

I. List the underground storage tanks at this facility and identify the tank(s) associated with this release by placing an "X" in the "LUST" column. (*Complete the last two columns for the LUST entries only*):

TANK ID NUMBER	CONTENTS (Regulated Substances) Specify grade if gasoline		LUST?	HAS THE TANK BEEN EMPTIED?	HAS THE TANK BEEN REMOVED?
	(As Registered)	At Time of Release			
1	Unleaded Gasoline	Unleaded Gasoline	Yes	Yes, 4/27/99	Yes, 4/27/99

J. If "No" was specified in either of the last two columns for any leaking underground storage tank, provide an explanation below: _____

ATTACHMENT NO. 15
SECTIONS 1.1, ITEMS C THROUGH J, 4.1, 4.2 AND 4.3
OF INITIAL ASSESSMENT REPORT

4.0 RESULTS OF THE TIER I OR TIER II EVALUATION

4.1 EXPOSURE PATHWAY CHARACTERIZATION

A. Check all that apply to this site:

Potential Source(s)

- Impacted Soils
 - Dissolved Groundwater Plume
 - Free Phase Liquid Plume
 - Impacted Sediments or Surface Water
 - Other (*Specify*):
-

Potential Transport Mechanism(s)

- Wind Erosion and Atmospheric Dispersion
 - Volatilization and Atmospheric Dispersion
 - Volatilization and Enclosed-Space Accumulation
 - Leaching and Groundwater Transport
 - Mobile Free-Liquid Migration
 - Storm Water/Surface Water Transport
 - Utility Corridors
 - Other (*Specify*):
-

Potential Exposure Routes(s)

- Soil Ingestion
 - Direct Contact of Soil with Skin
 - Inhalation of Airborne Particulates
 - Inhalation of Volatiles
 - Potable Water Use
 - Use of Non-Potable Water
 - Other (*Specify*):
-

Potential Receptor(s)

- Resident
- Commercial Worker III*
- Commercial Worker IV*
- Industrial Worker
- Construction Worker
- Sensitive Habitat
- Structures

ATTACHMENT NO. 15
SECTIONS 1.1, ITEMS C THROUGH J, 4.1, 4.2 AND 4.3
OF INITIAL ASSESSMENT REPORT

4.1 EXPOSURE PATHWAY CHARACTERIZATION (Continued)

- Utilities
- Surface Waters
- Water Supply Wells
- Other *(Specify)*

* As defined in Attachment No. 11 to the "Guidance Document for Risk-Based Corrective Action at Leaking Underground Storage Tanks"

NOTE: A pathway must include three necessary elements:

- 1) a source (e.g., contamination);*
- 2) a mechanism by which the contamination can become available to result in exposures at the source or via migration to other locations (e.g., free product and contaminated groundwater movement along a buried utility corridor); and*
- 3) an individual who may come into contact, ingest, or inhale the contamination at the point of exposure (e.g., a utility maintenance worker digging to repair the line).*

Examples of a complete pathway include:

- 1. inhalation of impacted soils by an on-site construction worker*
- 2. impacted soils leaching into potable ground water and being used by a nearby resident for drinking and bathing*
- 3. inhalation of vapors resulting from the migration of free product by a neighboring industrial worker*
- 4. impacted groundwater discharging to wetlands*

- B. List the most plausible potential residential exposure pathway(s) for the site: There are no plausible residential exposure pathways for this site. The confirmatory soil and groundwater samples indicate that residual concentrations are less than the generic residential criteria.
- C. List the most plausible potential industrial exposure pathway(s) for the site: The most plausible industrial exposure pathway involves the digging of utility or other trenches through the impacted region. In such a case, a construction worker or other utility company personnel could be exposed to residual contamination through direct contact with soils or groundwater or inhalation of vapors that may collect in a confined space such as a utility trench excavation.
- D. List the most plausible potential commercial exposure pathway(s) for the site: The most plausible commercial exposure pathway would be from onsite workers that periodically work in the maintenance garage. The workers could be exposed to inhalation of vapors that may collect in the enclosed space. However, this is very unlikely due to the extremely low contaminant concentrations detected as well as the thick overburden and asphalt pavement above the impacted groundwater.
- E. List the most plausible potential sensitive habitat exposure pathway(s) for the site: There is no plausible sensitive habitat exposure pathways.

ATTACHMENT NO. 15
SECTIONS 1.1, ITEMS C THROUGH J, 4.1,4.2 AND 4.3
OF INITIAL ASSESSMENT REPORT

4.2 OPTIONAL TIER II EVALUATION

- A. Has a site-specific Tier II evaluation been conducted for this Initial Assessment Report?
 Yes No
- B. If "Yes", identify and justify where alternate assumptions or site-specific information was used in place of the default assumptions as defined in Attachment No. 11 of "Guidance Document For Risk-Based Corrective Action At Leaking Underground Storage Tanks":

4.3 IDENTIFICATION OF TIER I RISK-BASED SCREENING LEVELS OR TIER II SITE-SPECIFIC TARGET LEVELS AND COMPARISON TO SITE DATA

- A. For each contaminated medium, complete a Tier I RBSL / Tier II SSTL Comparison Table (Attachment No. 8 for soil, Attachment No. 19 for groundwater or Attachment No. 26 for other media, as appropriate) by:
- Checking the box associated with the applicable land use scenario;
 - Checking the boxes associated with the contaminants currently present at the site;
 - Entering the current maximum detected on-site or off-site concentration for each selected contaminant, along with the corresponding sample identification number and date of sampling;
 - Entering the lowest applicable RBSL value for soil or groundwater from the Tier I Look-Up Tables (*refer to Attachment No. 11 of the "Guidance Document For Risk-Based Corrective Action At Leaking Underground Storage Tanks"*) for the specific exposure routes present and environmental medium being considered or a corresponding optional Tier II SSTL. [*NOTE: Include the exposure route code that identifies the basis for each applicable criterion noted. For example, 12 ug/kg (A) for a cleanup goal based on the direct contact with soil exposure route, and 12 ug/kg (B) for a cleanup goal based on the soil leaching to groundwater exposure route*];
 - Comparing the contaminant-specific maximum concentration to the corresponding RBSL or SSTL criterion; and Identifying and recording whether or not there is an exceedence of the RBSL or the SSTL.

B. Tier I RBSL / Tier II SSTL Comparison Tables are attached for the following: (*Check all that apply*)

	ENVIRONMENTAL MEDIUM		
LAND USE	SOIL	GROUNDWATER	OTHER (<i>Specify</i>)
Residential	✓ (Attachment 8)	✓ (Attachment 11)	NA
Commercial III			
Commercial IV			
Industrial			

Department of Environmental Quality
Storage Tank Division
District E

CONFIRMED RELEASE REPORTOwner Information

CITY OF DETROIT/DPW
1301 E WARREN AVE
2ND FLOOR
DETROIT, MI 48207

Owner Phone: (313) 267-7121

Contact: DENISE MCCLUNG
Phone: (313) 224-9409

Location of Tanks

ROGELL GOLF COURSE
18690 BERG RD
DETROIT, MI 48219

County: WAYNE
City:

Location Phone: (313) 224-1137

Date Release Discovered: SUSPECTED RE, 04/27/99; UPGRADED SUS, 05/06/99

Time Release Discovered/Reported:

PM

Date Release Reported: 05/06/99

Tank Information and Product Released:

Cause: 550 STEEL GAS

Product: Product Code: <missing>

Estimated Quantity Lost: unknown

Detection Method:

1) HOLE IN TANK - NO PRODUCT OR ODORS 2) LAB RESULTS

Comments (For USTD use only):

PM, REPORTED 4/28/99 17:21 FAX

Reporting Party Information:

BRIAN TRENT - NTH CONSULTANTS
CONSULTANT
(313) 965-0036

Department of Environmental Quality
Storage Tank Division
District E

SUSPECTED RELEASE REPORTOwner Information

CITY OF DETROIT/DPW
1301 E WARREN AVE
2ND FLOOR
DETROIT, MI 48207

Owner Phone: (313) 267-7121

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Date Release Discovered: SUSPECTED RE, 04/27/99

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PM

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Tank Information and Product Released:

Cause: 550 STEEL GAS

Product: Product Code: <missing>

Estimated Quantity Lost: unknown

Detection Method:

1) HOLE IN TANK - NO PRODUCT OR ODORS

Comments (For USTD use only):

PM, REPORTED 4/28/99 17:21 FAX

Reporting Party Information:

BRIAN TRENT - NTH CONSULTANTS
CONSULTANT
(313) 965-0036



JOHN ENGLER, Governor
DEPARTMENT OF ENVIRONMENTAL QUALITY

"Better Service for a Better Environment"
 HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973

INTERNET: www.deq.state.mi.us
 RUSSELL J. HARDING, Director

REPLY TO

STORAGE TANK DIVISION
 TOWN CENTER
 PO BOX 30157
 LANSING MI 48909-7657

May 10, 1999

CERTIFIED MAIL

Dear Owner/Operator:

SUBJECT:

Facility ID No. 0-019067, Confirmed Release No. C-387-99
 ROGELL GOLF COURSE, 18690 BERG RD, DETROIT, MI

On 05-06-99, the Department of Environmental Quality (DEQ), Storage Tank Division (STD), was notified of a release of a regulated substance from an underground storage tank (UST) system at the above location. Attached is a copy of the confirmed release report. As the owner or operator of this facility with a reported release, you are responsible for hiring a qualified underground storage tank consultant to conduct all appropriate corrective actions at this location, including submission of reports by the deadlines set forth in Part 213, Leaking Underground Storage Tanks, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. If you do not agree that you are responsible for conducting corrective actions at this facility, you may submit supporting documentation to the STD DETROIT OFFICE within 30 days from receipt of this letter that demonstrates that you were not responsible for the release. Attached is informational memo IM-8, revised January 8, 1997, which provides general information on liability.

Please refer to Part 213 and the attached flow chart to help guide you through the requirements. STD approval is needed for any institutional controls that are a part of the cleanup program. The STD may audit or oversee all aspects of corrective actions undertaken pursuant to Part 213. You are required to contact our district office at least 48 hours prior to conducting on-site activities, using the attached form.

The STD requires the use of forms to assist in the reporting requirements. The required forms are available from the district office. A LUST report cover sheet should be submitted with each report. In addition, you are required to notify the STD of any changes to your UST system using a registration form.

Be advised that pursuant to Section 21313a and 21323 of Part 213, the owner or operator may be subject to penalties for not preparing and submitting the reports outlined in Part 213. In addition Section 21324 of Part 213 provides that a person who submits or causes to be submitted false or misleading information may be found guilty of fraud.

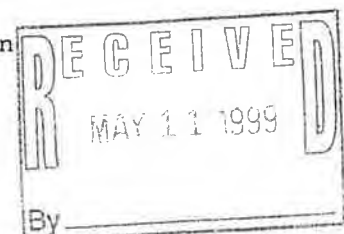
Please include the Facility ID No. found under "Subject" at the top of this notification with each submittal and on any future correspondence. Should you have questions regarding this letter, or need additional information, please contact the STD DETROIT OFFICE at (313) 392-6480.

Sincerely,

Terri Harmon
 Storage Tank Division

Enclosures

cc: DETROIT OFFICE





JOHN ENGLER, Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

"Better Service for a Better Environment"

HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973

INTERNET: www.deq.state.mi.us

RUSSELL J. HARDING, Director

REPLY TO:

DETROIT OFFICE
SUITE 3800
300 RIVER PLACE
DETROIT MI 48207

August 16, 1999

Ms. Denise McClung
City of Detroit
65 Cadillac Square, Suite 1000
Detroit, Michigan 48226

Proj #u01210

Dear Ms. McClung:

SUBJECT: Closure Report Receipt Date: June 24, 1999
Confirmed Release Date: May 6, 1999
Location of Tank(s): Rogell Golf Course, 18601 Berg Road, Detroit,
Wayne County, Michigan
Facility ID #: 0-019067

In accordance with Section 21312a(2) of Part 213, Leaking Underground Storage Tanks (LUST) of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), the Storage Tank Division (STD) of the Department of Environmental Quality (DEQ) acknowledges receipt of your Closure Report. This Closure Report was submitted on your behalf by NTH Consultants, Ltd., Qualified Underground Storage Tank Consultant (QC), and certified by Mr. Brian S. Smits, P.E., Certified Underground Storage Tank Professional.

The Closure Report submitted by the QC concludes that corrective actions at the site have been completed in accordance with Part 213, and that corrective action at the site has resulted in **Unrestricted residential use** of the site based on a **Tier 1 evaluation**.

Please note the following conditions:

- When contaminated soil and/or groundwater as a result of a release of a regulated substance remains on site consistent with site closure requirements, the owner/operator shall not remove or allow this soil and/or groundwater to be removed from the site to an off-site location without properly characterizing the soils and/or groundwater to determine that they can be lawfully relocated without posing a threat to the public health, safety, and welfare, and the environment. The determination shall consider whether the soil and/or groundwater is subject to regulations under

Part 111, Hazardous Waste Management, of Act 451, and/or Part 115, Solid Waste Management, of Act 451.

- If the site closure is based on a determination by the QC that eliminated any groundwater pathway consistent with site closure requirements, groundwater contamination may still be present in the shallow groundwater above Tier 1 Drinking Water Risk-Based Screening Levels. Therefore the owner/operator shall not engage in any activities that would alter the conditions of site closure, which may include but not be limited to, the potential for cross-contaminating deeper aquifers by drilling water supply wells through the shallow groundwater contamination. In addition, the owner/operator shall provide disclosure to potential purchasers or users of the property regarding the conditions of site closure.
- Prospective purchasers or users of this property should conduct all appropriate inquiry to determine if their proposed land use might alter the conditions of the site closure and result in unacceptable risks to human health.

Under Section 21315(1) of Act 451, the STD may initiate an audit of the results of the investigation and corrective actions undertaken to confirm the results and conclusions indicated by the QC within six months of receipt of the Closure Report. If an audit is initiated within this time frame, and the audit confirms that corrective action has been conducted in compliance with Part 213 and that the cleanup criteria have been met, you will be provided with a letter describing the audit and its results, as described in Section 21315(3) of Act 451. The STD audit would consist of a review of file documents, and may include the collection of soil and/or groundwater samples from the facility to verify that the levels of remaining contaminants certified by your QC are accurate.

All groundwater monitoring wells and other similar devices installed as part of the corrective action activities at the site must be properly abandoned when they are no longer needed for their original purpose or modified purpose. Abandonment should be completed in accordance with American Society of Testing Materials Standard D 5299-92, "Standard Guide for Decommissioning Ground Water Wells, Vadose Zone Monitoring Devices, Boreholes, and Other Devices for Environmental Activities." Proper abandonment of groundwater monitoring wells and other potential conduits for contamination should be performed within 60 days after use has been discontinued.

If the STD conducts an audit which **does not** confirm that corrective action is complete, additional information and/or corrective action may be required as set forth in Section 21315(3) of Act 451. Therefore, it is recommended that monitoring well abandonment not be performed until either the DEQ provides a letter indicating that the Closure Report has been audited and we concur with the conclusions that corrective

Ms. Denise McClung

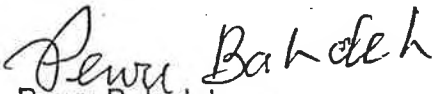
3

August 16, 1999

action activities have been completed; or until the six month time frame for the Department to conduct a closure audit expires.

If you have any questions, please contact me at the telephone number below.

Sincerely,


Pewu Bah-deh
Environmental Quality Analyst
Storage Tank Division
313-392-6523

drs

cc: NTH Consultants, Ltd.
Mr. James Cogger, DEQ, STD



APPROXIMATE LIMIT OF UST
REMOVAL EXCAVATION TO
A DEPTH OF 9.0 FEET
BELOW GROUND SURFACE

WW-1 @5'
BTEX = ND
TMB's = ND
MTBE = ND
PNA's = ND

FORMER
DISPENSER
LOCATION

GRASS

FORMER
CONCRETE
DISPENSER PAD

PIPE/
DISPENSER @3'
BTEX = ND
TMB's = ND
MTBE = ND
PNA's = ND

SW-1 @5'
BTEX = ND
TMB's = ND
MTBE = ND
PNA's = ND

NW-1 @5'
BTEX = ND
TMB's = ND
MTBE = ND
PNA's = ND

FORMER
VENT PIPE

FLOOR-1 @7.5'
B = 17ppb
T = 45ppb
E = 3ppb
X = 15ppb
TMB's = ND
MTBE = ND
PNA's = ND

ROGELL
GOLF COURSE
MAINTENANCE
GARAGE

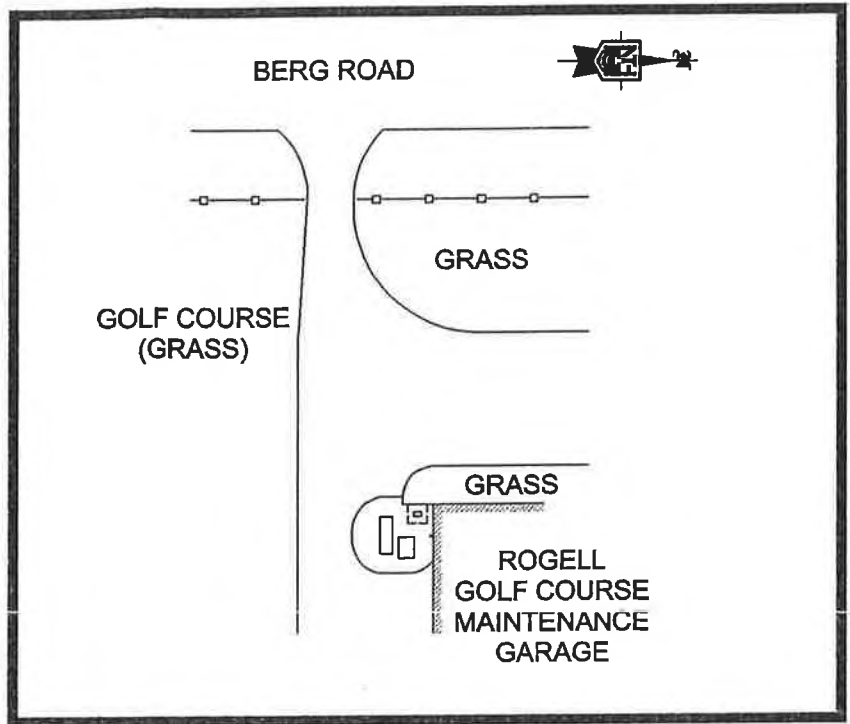
APPROXIMATE LOCATION
OF NEW 560-GALLON
GASOLINE UST

EW-1 @5'
BTEX = ND
TMB's = ND
MTBE = ND
PNA's = ND

APPROXIMATE LOCATION OF
FORMER 550-GALLON
GASOLINE UST

PARTIAL PLAN

SCALE: 1" = 5'



SITE PLAN

SCALE: 1" = 50'

LEGEND

- ▲ CONFIRMATORY SOIL SAMPLE COLLECTED BY NTH CONSULTANTS, LTD. ON APRIL 27, 1999
- CONFIRMATORY GROUNDWATER SAMPLE COLLECTED BY NTH CONSULTANTS, LTD. ON APRIL 27, 1999

- BTEX BENZENE, TOLUENE, ETHYLBENZENE, AND XYLENE CONSTITUENTS.
- TMBs TRIMETHYLBENZENE ISOMERS.
- MTBE METHYL-TERT-BUTYL-ETHER
- PNAs 2-METHYLNAPHTHALENE AND NAPHTHALENE COMPOUNDS.
- ND NON-DETECT

NTH Consultants, Ltd. Professional Engineering & Environmental Services Detroit, Michigan			
UST REMOVAL & INSTALLATION PLAN			
DPW - ROGELL GOLF COURSE DETROIT, MICHIGAN			
PROJECT No.: 34-4249-65	DRAWN BY: SHB	DATE: 05-04-99	1
SCALE: 1"=20'	CHECKED BY: BST	SHEET 1 OF 1	



Greater Grace Temple

"The Vision Has Come To Pass!"

BISHOP CHARLES H. ELLIS, III
SENIOR PASTOR

Located at the "City of David"
23500 W. Seven Mile Rd. • Detroit, MI 48219
Phone (313) 543-6000 • Fax (313) 543-6052

FAX

19067

To:

MDEO _____
 Att: Ron _____

FROM:

Greater Grace Temple _____
 Accounts Payable _____

FAX:

(517) 335-2245 _____

PHONE:

(313) 543-6073 _____

PAGES: (including cover)

2 _____

DATE:

11/20/07 _____

Comments:

Refund ?

If any part of this fax message is unreadable or missing, please contact the Greater Grace Temple Administrative Office @ (313) 543-6000. Thank you!



Greater Grace Temple
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Located at the "City of David"
23500 W. Seven Mile Rd. • Detroit, MI 48219
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FAX

To:

MDFO

Att: Ron

FROM:

Greater Grace Temple

Accounts Payable

FAX:

(517) 335-2245

PHONE:

(313) 543-6073

PAGES: (including cover)

2

DATE:

11/20/07

Comments:

If any part of this fax message is unreadable or missing, please contact the Greater Grace Temple Administrative Office @ (313) 543-6000. Thank you.

Hardy, Martin

From: Jennifer Lagerbohm [jennifer.lagerbohm@mc Dowasc.com]
Sent: Friday, November 09, 2007 1:28 PM
To: Hardy, Martin
Subject: Tank Pull

This is our chief of staff

Hi Martin,

I called the DEQ to get authorization to pull the UST next week. Prior to pulling the tank, the MDEQ needs the \$100 fee that was due on Oct. 17, 2007. Please send the check to the entity below. Fax a copy of the check also to the fax below. Please include Facility ID # 00019067 on the check.

Mail the check to: MDEQ, OFFICE OF FINANCIAL MANAGEMENT, REVENUE CONTROL UNIT, PO BOX 30657, LANSING, MI 48909. Phone: 517-335-7211, Fax: 517-335-2245.

Jennifer



Greater Grace Temple
"The Vision Has Come To Pass!"

BISHOP CHARLES H. ELLIS, III
SENIOR PASTOR

Located at the "City of David"
23500 W. Seven Mile Rd. • Detroit, MI 48219
Phone (313) 543-6000 • Fax (313) 543-6052

FAX

To:
 MDEQ Office of Financial
 Management, Revenue Control
 Unit
 Whom This May Concern:
 Attn: Jennifer Lagerholm

FROM:
 Greater Grace Temple
 Accounts Payable

FAX:
 (517) 335-2245

PHONE:
 (313) 543-6073

PAGES: (including cover)
 2

DATE:
 11/9/07

Comments:

If any part of this fax message is unreadable or missing, please contact the Greater Grace Temple Administrative Office @ (313) 543-6000. Thank you.

GREATER GRACE TEMPLE

23500 West Seven Mile Road
Detroit, MI 48219-1722
313-543-6000
www.greatergrace.org

JPMORGAN CHASE BANK, NA
Detroit, MI 48224

40784

11/9/2007

PAY TO THE ORDER OF MDEQ

\$ **100.00

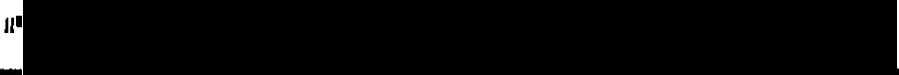
One Hundred and 00/100***** DOLLARS

MDEQ
Office of Financial Management
Revenue Control Unit
PO BOX 30657
Lansing, MI 48909
Facility ID# 00019067

MEMO

Void After 90 Days

COPY NOT NEGOTIABLE



GREATER GRACE TEMPLE

40784

MDEQ

facility ID# 00019067

11/9/2007

100.00

1-313-543-6000
Ch. Crystal Accts. Payable

1040 BANK ONE C Facility ID# 00019067

100.00

GREATER GRACE TEMPLE

40784

MDEQ

facility ID# 00019067

11/9/2007

100.00

PAYMENT RECORD
Posted Rec'd 11-13-07

1040 BANK ONE C Facility ID# 00019067

100.00

Smk Jan 07, 2008

9067



30241

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY - WASTE AND HAZARDOUS MATERIALS DIVISION
PO BOX 30157, LANSING, MI 48909-7657

REGISTRATION OF UNDERGROUND STORAGE TANKS

The information in this form is required under "Part 211, Underground Storage Tank Regulations, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended." Any owner who knowingly fails to notify or submits false information shall be subject to a misdemeanor and/or civil penalties not to exceed \$5,000 per day for each

<input type="checkbox"/> NEW REGISTRATION			FACILITY IDENTIFICATION NUMBER (if known)		
<input checked="" type="checkbox"/> AMENDED INFORMATION (for Registered USTs Only)			00019067		
NO. OF TANKS AT FACILITY 1		NO. OF CONTINUATION SHEETS ATTACHED (0)			
I. OWNERSHIP OF TANKS			II. LOCATION OF TANKS		
IF THIS IS A NEW OWNER'S ADDRESS, PLEASE CHECK <input checked="" type="checkbox"/>			IF INFORMATION IS THE SAME AS SECTION I, PLEASE CHECK <input type="checkbox"/>		
OWNER NAME (Corporation/Individual, etc.) Greater Grace Temple			FACILITY NAME OR SITE IDENTIFIER Rogell Golf Course		
MAILING ADDRESS 23500 W. Seven Mile Road			STREET ADDRESS (P.O. Box Not Acceptable) 18690 Berg Road		
CITY Detroit	STATE MI	ZIP 48219	CITY Detroit	STATE Michigan	ZIP 48226
COUNTRY (Please Specify) X USA <input type="checkbox"/> OTHER _____			COUNTY Wayne		
TELEPHONE (Including Area Code) 313- 543-6071			TELEPHONE (Including Area Code) (313) 543-6071		
TAX PAYER ID OR SOCIAL SECURITY NUMBER					
LATITUDE AND LONGITUDE of facility (if known)					
LATITUDE (North):			LONGITUDE (West):		
III. TYPE OF OWNER					
<input type="checkbox"/> FEDERAL		<input checked="" type="checkbox"/> COMMERCIAL			
<input type="checkbox"/> STATE GOVERNMENT		<input type="checkbox"/> PRIVATE			
<input type="checkbox"/> LOCAL GOVERNMENT		ARE TANKS LOCATED ON LAND WITHIN A RESERVATION? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
IF TANKS ARE LOCATED WITHIN A RESERVATION, DOES A NATIVE AMERICAN TRIBE OWN TANKS? <input type="checkbox"/> YES <input type="checkbox"/> NO					
IF TANKS ARE OWNED BY A TRIBE, NAME OF TRIBE: _____					
IV. TYPE OF FACILITY					
<input type="checkbox"/> PUBLIC GAS STATION	<input type="checkbox"/> LOCAL GOVERNMENT	<input type="checkbox"/> CONTRACTOR			
<input type="checkbox"/> PRIVATE GAS STATION	<input type="checkbox"/> STATE GOVERNMENT	<input type="checkbox"/> TRUCKING/TRANSPORT			
<input type="checkbox"/> MARINE GAS STATION	<input type="checkbox"/> FEDERAL/NON-MILITARY	<input type="checkbox"/> UTILITIES			
<input type="checkbox"/> PETROLEUM DISTRIBUTOR	<input type="checkbox"/> FEDERAL-MILITARY	<input type="checkbox"/> RESIDENTIAL			
<input type="checkbox"/> AIRLINE AND/OR AIRCRAFT OWNER	<input type="checkbox"/> COMMERCIAL	<input type="checkbox"/> FARM			
<input type="checkbox"/> AUTO DEALERSHIP	<input type="checkbox"/> INDUSTRIAL	<input checked="" type="checkbox"/> OTHER (Explain) Golf Course			
<input type="checkbox"/> RAILROAD	<input type="checkbox"/> HOSPITAL				
V. CONTACT PERSON					
NAME Martin Hardy		JOB TITLE Trustee		TELEPHONE (Including Area Code) (313) 543-6071	
VI. FINANCIAL RESPONSIBILITY					
I HAVE MET THE FINANCIAL RESPONSIBILITY REQUIREMENTS AS REQUIRED IN THE MICHIGAN UNDERGROUND STORAGE TANK RULES (MUSTR) (Check All Items Below That Apply)					
<input type="checkbox"/> SELF INSURANCE		<input type="checkbox"/> GUARANTEE		<input type="checkbox"/> TRUST FUND	
<input type="checkbox"/> COMMERCIAL INSURANCE		<input type="checkbox"/> SURETY BOND			
<input type="checkbox"/> RISK RETENTION GROUP		<input type="checkbox"/> LETTER OF CREDIT			
VII. CERTIFICATION					
I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS FORM AND ALL ATTACHED DOCUMENTS AND THAT I HAVE VERIFIED THAT THE INFORMATION IS TRUE, ACCURATE, AND COMPLETE.					
NAME AND OFFICIAL TITLE OF OWNER OR OWNERS' AUTHORIZED REPRESENTATIVE MARTIN H. HARDY, CORPORATE SECRETARY			SIGNATURE <i>Martin H. Hardy</i>		DATE 12/14/07

VIII. DESCRIPTION OF UNDERGROUND STORAGE TANKS

(Complete the following pages for each tank at this location; Copy these pages for additional tanks if needed)

TANK IDENTIFICATION NUMBER	1							
7. STATUS OF TANKS (Check One) CURRENTLY IN USE <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> TEMPORARILY OUT OF USE <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> AMENDMENT OF INFORMATION <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <i>(If tanks are removed/closed, complete page 3, Section IX)</i>								
2. DATE OF INSTALLATION (Month/Day/Year)	1998							
3. ESTIMATED TOTAL CAPACITY (Gallons)	~560							
4. MATERIAL OF CONSTRUCTION (Mark All That Apply) ASPHALT COATED OR BARE STEEL <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> CATHODICALLY PROTECTED STEEL <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> EPOXY COATED STEEL <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> COMPOSITE (Steel With Fiberglass) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> FIBERGLASS REINFORCED PLASTIC <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> LINED INTERIOR <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> DOUBLE WALLED <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> POLYETHYLENE TANK JACKET <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> CONCRETE <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> EXCAVATION LINER <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> UNKNOWN <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> OTHER (Specify in comments area) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> HAS TANK BEEN REPAIRED? <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>								
5. PIPING MATERIAL (Mark All That Apply) BARE STEEL <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> FIBERGLASS REINFORCED PLASTIC <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> COPPER <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> CATHODICALLY PROTECTED <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> DOUBLE WALLED <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> FLEXIBLE PIPING <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> ENVIROFLEX <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> GEOFLEX <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> UNKNOWN <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>								
6. PIPING (Type) (Mark All That Apply) SUCTION; NO VALVE AT TANK <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> SUCTION; VALVE AT TANK <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> PRESSURE (Remote) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> HAS PIPING BEEN REPAIRED? <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>								

TANK IDENTIFICATION NUMBER	1							
7. SUBSTANCE CURRENTLY OR LAST STORED IN GREATEST QUANTITY BY VOLUME								
GASOLINE	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DIESEL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GASOHOL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
KEROSENE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Not For Consumptive Use On Premises) FUEL OIL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MOTOR OIL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
USED OIL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HAZARDOUS SUBSTANCE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TANK HAS COMPARTMENTS (List substances in comments area)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OTHER (Specify in comments area)				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CERCLA NAME AND/OR CHEMICAL ABSTRACT SERVICE (CAS) NUMBER (if hazardous substance stored)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IX. TANKS OUT OF USE OR CHANGE IN SERVICE

NOTE: A SITE ASSESSMENT MUST BE COMPLETED UNLESS YOU REPORT A CONFIRMED RELEASE

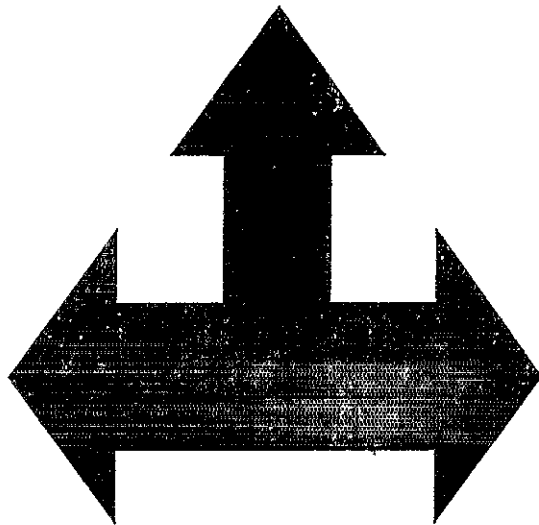
1. CLOSING OF TANK	2006							
A. ESTIMATED DATE LAST USED (Month/Day/Year)								
B. ESTIMATED DATE TANK REMOVED/ CLOSED IN PLACE (Month/Day/Year)	11/14/ 2007							
C. TANK WAS REMOVED FROM GROUND	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. TANK FILLED WITH INERT MATERIAL (Sand, Concrete, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
•DESCRIBE TYPE OF FILL USED								
•REASON TANK WAS NOT REMOVED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. CHANGE IN SERVICE								

X. CERTIFICATION OF COMPLIANCE

1. INSTALLATION								
A. INSTALLER CERTIFIED BY TANK AND PIPING MANUFACTURERS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. INSTALLER CERTIFIED OR LICENSED BY STU	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. INSTALLATION INSPECTED BY A REGISTERED ENGINEER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. INSTALLATION INSPECTED AND APPROVED BY STU	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. ANOTHER METHOD ALLOWED BY STU (Please Specify)								

TANK IDENTIFICATION NUMBER	7													
2. RELEASE DETECTION	TAN	PIPE	TAN	PIPE	TAN	PIPE	TAN	PIPE	TAN	PIPE	TAN	PIPE	TAN	PIPE
A. MANUAL (Static) TANK GAUGING	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
B. TANK TIGHTNESS TESTING	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
C. INVENTORY CONTROL	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
D. AUTOMATIC TANK GAUGING	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
E. VAPOR MONITORING	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. GROUNDWATER MONITORING	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G. INTERSTITIAL MONITORING DOUBLE WALLED TANK/PIPING	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H. AUTOMATIC LINE LEAK DETECTORS		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
I. LINE TIGHTNESS TESTING		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
K. OTHER METHOD ALLOWED BY STU (Specify in comments area)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. SPILL AND OVERFILL PROTECTION														
A. OVERFILL DEVICE INSTALLED	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
B. SPILL DEVICE INSTALLED	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
4. HAVE YOU INSTALLED IMPRESSED CURRENT CATHODIC PROTECTION?														
A. YES	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
B. NO							<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
I CERTIFY THE INFORMATION CONCERNING INSTALLATION THAT IS PROVIDED IN SECTION X IS TRUE TO THE BEST OF MY BELIEF AND KNOWLEDGE.														
INSTALLER:														
_____					_____					_____				
NAME PRINTED					SIGNATURE					DATE				
_____					_____					_____				
TITLE					COMPANY									

Refund?
Need to call
owner



Jim Lucas - INTENT OF REMOVAL, ... OF UST -- EQP3824 -- 20071109-0741

From: <petefuels@yahoo.com>
To: <LUCASJ@michigan.gov>
Date: 11/9/2007 7:41 AM
Subject: INTENT OF REMOVAL, ... OF UST -- EQP3824 -- 20071109-0741
CC: <ZAJACA@michigan.gov>, <MURPHYSM@michigan.gov>, <petefuels@yahoo.com>

INTENT OF REMOVAL, CLOSURE OR CHANGE-IN-SERVICE OF UNDERGROUND STORAGE TANKS

IOU #: 2007-0264

Form Key: 20071109-0741

Today's Date: 11/9/2007 7:41:08 AM

FACILITY NUMBER: 19067- <i>C</i>
--

I. OWNERSHIP OF TANKS

CITY OF DETROIT
 ROGELL GOLF COURSE
 65 cadillac
 65 CADILIAC
 DETROIT, MI 48226

County: Wayne--Detroit
 Telephone: 3132241137

II. LOCATION OF TANKS

AL
 ROGELL GOLF COURSE
 18690 BERG RD.
 DETROIT, MI 48219

County: Wayne--Detroit
 Telephone: 3132241137

III. TANK INFORMATION

Tank Number <small>(as indicated on UST Invoice)</small>	Product Last Stored In Tank	Size of Tank <small>(gallons)</small>	Indicate action to be taken <small>Removal, Change in Service, Close in Place</small>
<i>C</i> 1	GASOLINE	550	Removal

IV. COMMENTS

V. Submitter Information

Name: PETER DENTON Phone: 734-789-1500 Company: BEST FUEL SERVICE, INC. email: petefuels@yahoo.com

WHMD USE ONLY

WHMD APPROVAL NOTICE

Approval is given to perform the indicated activity at the above facility location. Action indicated above may commence on or after 12/10/2007.

Expiration DATE: 5/9/2008. If action is not taken by the expiration date,

you must submit another notification.

Authoring Signature <i>James Lucas</i>	Date <i>11/9/07</i>	Date Confirmation Mailed to Owner <i>11/9/07</i>	Entry Date <i>11/9/07</i>
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EQP3824

IOC# 2007-0253

FACILITY NUMBER (see Invoice)
00019067.C



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTE AND HAZARDOUS MATERIALS DIVISION

INTENT OF REMOVAL, CLOSURE OR CHANGE-IN-SERVICE OF UNDERGROUND STORAGE TANKS

This information is required pursuant to Part 211, Underground Storage Tank Regulations, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. An owner/operator who fails to notify is subject to a misdemeanor and/or civil penalties, not to exceed \$5,000 per day for each tank.

INSTRUCTIONS: NOTICES WILL ONLY BE ACCEPTED ON THIS FORM. YOUR UST MUST BE REGISTERED PRIOR TO SUBMITTAL OF THIS FORM. Please type or print clearly. ALL information must be completed. See reverse side for additional information. If you have questions, call 617-335-2690, Monday through Friday between 8:00 am - 5:00 pm

I. OWNERSHIP OF TANKS			II. LOCATION OF TANKS		
<input checked="" type="checkbox"/> PLEASE CHECK IF NEW OWNER'S ADDRESS			<input type="checkbox"/> PLEASE CHECK IF SAME AS SECTION I		
NAME OF OWNER (CORPORATION, INDIVIDUAL, ETC.) Greater Grace Temple			FACILITY NAME OR COMPANY SITE IDENTIFIER Rogell Golf Course		
STREET ADDRESS 23500 W. Seven Mile Road			STREET ADDRESS (P O Box Not Acceptable) 18690 Berg Road		
CITY Detroit	STATE MI	ZIP CODE 48219	CITY Detroit	STATE MI	ZIP CODE 48226
COUNTY Wayne	TOWNSHIP		COUNTY Wayne	TOWNSHIP	
AREA CODE & TELEPHONE NUMBER () 313-543-6071			CONTACT PERSON FOR LOCATION Martin Hardy		AREA CODE & TELEPHONE NUMBER (313) 543-6071

TANK INFORMATION			
TANK NUMBER AS INDICATED ON UST INVOICE	PRODUCT LAST STORED IN TANK	SIZE OF TANK (GALLONS)	INDICATE ACTION TO BE TAKEN REMOVAL, CHANGE-IN-SERVICE, CLOSE IN PLACE
N 1	Gasoline	550	Removal

Comments: request a waiver of 30-day notice.

Notification Submitted by (Print Name) Jennifer Lagerbohm	Company McDowell & Associates
Signature <i>Jennifer Lagerbohm</i>	Date 10/31/07
Area Code & Telephone Number 248-514-6950	

THIS IS NOT A REGISTRATION FORM. AN AMENDED REGISTRATION FORM, EQP3821, MUST BE FILED TO REMOVE THE LISTED TANKS FROM THE BILLING CYCLE

WHMID USE ONLY

Approval is given to perform the indicated or after IMMEDIATELY

Expiration Date: IMMEDIATELY

notification.
Authorizing Signature
James Lucas

SUBSTANDARD TANK(S) MUST BE REMOVED AS SOON AS POSSIBLE. BE SURE TO CONTACT THE FIELD OFFICE BEFORE THE REMOVAL.

may commence on

list submit another

Mail White and Canary Copies To:
WASTE AND HAZARDOUS MATERIALS DIVISION
DEPARTMENT OF ENVIRONMENTAL QUALITY
P O BOX 30157
LANSING, MI 48909-7657

Date
11/2/07

Date Confirmation Mailed to Owner
11/2/07

Entry Date
11/2/07

INSTRUCTIONS



JENNIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



STEVEN E. CHESTER
DIRECTOR

September 10, 2007

City of Detroit (GSD)
65 Cadillac Sq
Suite #3200
Detroit, MI 48226

Dear Owner/Operator:

SUBJECT: Nonpayment of Fee(s) for Underground Storage Tank(s)

The Department of Environmental Quality (DEQ), Waste and Hazardous Materials Division (WHMD), has not received payment for the underground storage tank(s) (UST) located at Rogell Golf Course, 18690 Berg Rd, Detroit, Michigan, Facility Number 00019067.

Pursuant to Section 21102 (8) of Part 211, Underground Storage Tank Regulations, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, "the owner of an underground storage tank system shall, upon registration or renewal of registration, pay a registration fee of \$100 for each underground storage tank included in that underground storage tank system." The fee is owed on any regulated UST that exists at the facility whether the tank is active or not.

You were invoiced for your registration fee on February 28, 2007. Your current balance of \$100.00 is now past due and must be paid immediately. Please send your check, indicating your facility ID number, made payable to the "State of Michigan," to the DEQ, Cashiers Office, P.O. Box 30657, Lansing, Michigan 48909.

If the WHMD does not receive payment within 30 days of the date of this letter, your UST(s) will be red tagged and, as such, cannot be filled. Further, you may be subject to escalated enforcement action.

The WHMD will not accept payment of fees on-site or in a District Office. The tanks will be red-tagged as noted above and will not be de-tagged until payment is received by the DEQ, Cashiers Office, in Lansing.

Should you have reason to dispute all or part of these registration fees, you must submit and the WHMD must receive a written statement, together with all documentation in support of your position, within 21 days of the date of this letter. The information must be sent to the DEQ, WHMD, P.O. Box 30241, Lansing, Michigan 48909. If any of the following are the basis for your dispute, the identified information must be received for consideration of your dispute by the DEQ:

Change In Ownership

- Documents sufficient to demonstrate that a legal, equitable, or possessory interest of any kind in a UST system or in the property on which a UST system is located was transferred to another person. These documents should include a copy of the

instrument of conveyance (e.g., trusts, land contracts, lease agreements, and recorded quit claim or warranty deeds).

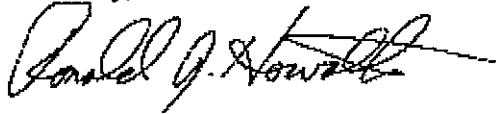
- An amended Registration of Underground Storage Tanks form, Form EQP3821 (REV 04/01). As required by Rule 13, Section 280.22(a) of the Michigan Underground Storage Tank Rules, 1999 AACS R 29.2101 et seq. (MUSTR), a new owner of an existing UST system shall register the UST system with the DEQ within 30 days of ownership on the above form.

UST Removal

- An amended Registration of Underground Storage Tanks form, Form EQP 3821(REV 04/01).
- As required by Rule 53, Section 280.71(f) of the MUSTR, the owner or operator shall sign and submit to the DEQ an amended registration form within 30 days of permanent closure or, in place of an amended registration form, a site assessment form, signed by the owner, within 45 days of permanent closure.
- As required by subsection 21102(10) of Part 211, the owner of a UST system is responsible to pay registration fees on USTs that have been closed or removed until notification of the closure or removal is provided to the DEQ.

If you have additional questions concerning this matter, please contact me.

Sincerely,



Ronald J. Horvath, Departmental Analyst
Storage Tank Unit
Storage Tank and Solid Waste Section
Waste and Hazardous Materials Division
517-373-6247

cc: Facility File

mailed
1-18-08/LM C-0387-99
5-6-99
5509w



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY - WASTE AND HAZARDOUS MATERIALS DIVISION

UNDERGROUND STORAGE TANK SYSTEM SITE ASSESSMENT REPORT AND CLOSURE OR CHANGE-IN-SERVICE REGISTRATION FORM

This information is required under Part 211, Underground Storage Tank Regulations, of the Natural Resources and Environmental Protection Act, Act 451 of the Public Acts of 1994, being Sections 324.21101 to 324.21113 of the Michigan Compiled Laws Annotated. Any owner who knowingly fails to notify or submits false information shall be subject to a misdemeanor and/or civil penalties not to exceed \$5000 per day for each tank for which notification is not given or for which false information is submitted.

INSTRUCTIONS: For permanent closure and change-in-service, complete all the information on this form and submit with the site assessment analytical results, chain of custody and site sketch which indicates the location and depths of tanks, piping, and samples. This form must be received within 45 days of the samples being taken. The owner is required to keep a copy of the site assessment report for a minimum of three years. See reverse side of this form for additional information.	FACILITY ID NUMBER 00019067
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I. OWNERSHIP OF TANKS			II. LOCATION OF TANKS		
NAME OF OWNER (CORPORATION, INDIVIDUAL, ETC.) Greater Grace Temple			FACILITY NAME OR COMPANY SITE IDENTIFIER Rogell Golf Course		
STREET ADDRESS 23500 W. Seven Mile Road			STREET ADDRESS (PO BOX NOT ACCEPTABLE) 18690 Berg Road		
CITY Detroit	STATE MI	ZIP CODE 48219	CITY Detroit	STATE MI	ZIP CODE 48226
AREA CODE & TELEPHONE NUMBER 313-543-6071			CONTACT PERSON FOR LOCATION Martin Hardy	AREA CODE & TELEPHONE NUMBER 313-543-6071	

SA # 20070136

III. TANK INFORMATION					
TANK NUMBER	1				
TANK SIZE	550 gallons				
SUBSTANCE STORED	gasoline				
DATE LAST USED	2006				
DATE CLOSED	11/14/2007				
REMOVED FROM GROUND	11/14/2007				
CLOSED IN PLACE (INDICATE TYPE OF FILL)	NA				
CHANGE-IN-SERVICE	NA				
OWNER'S NAME Mr. Martin Hardy	OWNER'S SIGNATURE <i>Martin Hardy</i>		DATE 12/11/07		

IV. SUBMITTER INFORMATION		
SUBMITTED BY (COMPANY NAME) McDowell & Associates, Ferndale, MI		NAME (INDIVIDUAL) Mr. Douglas M. McDowell, M.S., P.E.
SIGNATURE <i>DA McDowell</i>	DATE 12/17/07	AREA CODE & TELEPHONE NUMBER 248-399-2066

DO NOT WRITE BELOW THIS LINE (FOR OFFICE USE ONLY)

SITE ASSESSMENT REVIEW REPORT

Your site assessment has been reviewed by the Storage Tank Unit staff and the following determination has been made:

- The contamination concentration is below the threshold detection levels, and there is no evidence of a confirmed release.
- The test methodology or level of detection is faulty. The data submitted is not considered valid. Please perform another site assessment and forward a copy of the results to this office within 45 days.
- The number of sampling points analyzed are considered inadequate to make a determination of the cleanliness of the site. Please perform another site assessment and forward a copy of the results to this office within 45 days.
- The contaminant concentrations are greater than the threshold detection levels and there is evidence of a confirmed release. A confirmed release report is being generated. Follow reporting requirements in accordance with 451 PA 1994, Part 213, as amended.
- The soils excavated and removed from the site were greater than allowable volumes. A confirmed release was not reported to this office within 24 hours per the Michigan Underground Storage Tank Rules (MUSTR) prior to excavation of contaminated soil. A confirmed release report is being generated. Follow reporting requirements in accordance with 451 PA 1994, Part 213, as amended.

SIGNATURE OF REVIEWER <i>Marcia Patton</i>	DATE OF REVIEW 1-10-2008
---	-----------------------------

MAIL COPIES TO: WASTE AND HAZARDOUS MATERIALS DIVISION / STORAGE TANK UNIT / DEPARTMENT OF ENVIRONMENTAL QUALITY / PO BOX 30241 LANSING, MI 48909-7741

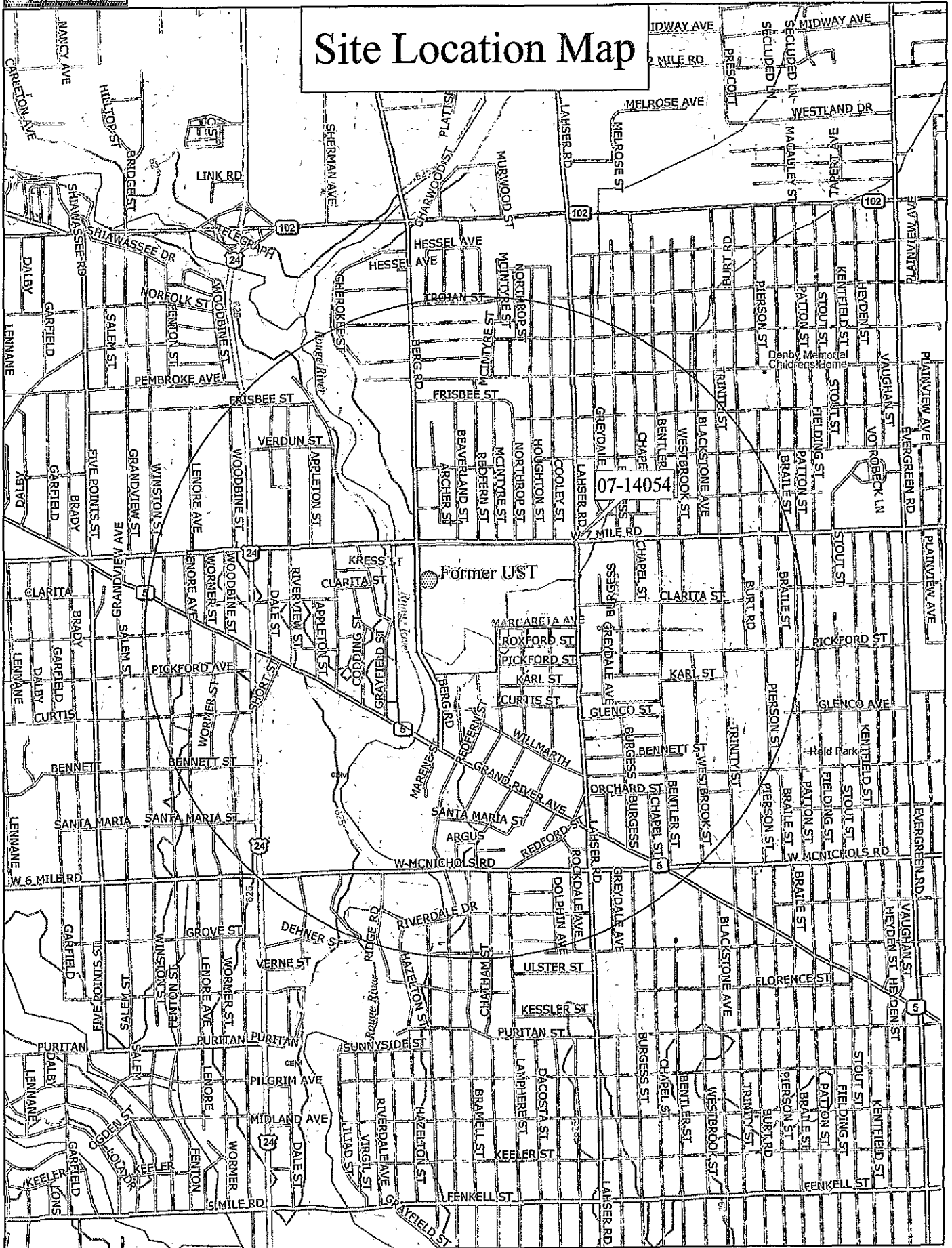
SNK DEC 21 2007

DEC 15 2007

DEC 19 2007



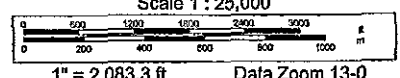
Site Location Map



Data use subject to license.

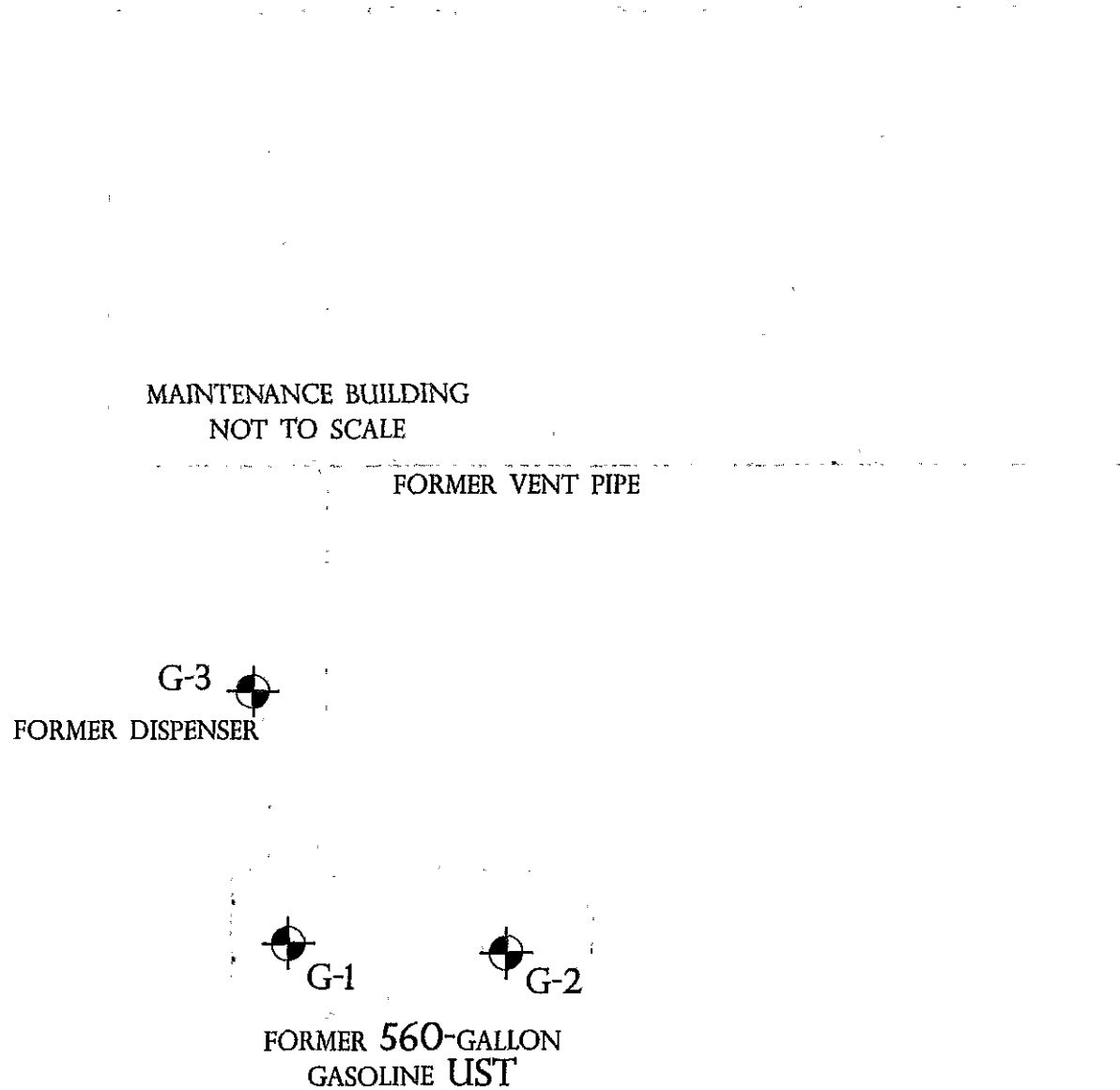
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www.delorme.com



Data Zoom 13-0

SAMPLE LOCATION MAP



APPROX. SCALE
1" = 5'

 APPROXIMATE CONFIRMATORY SOIL SAMPLE
 APPROXIMATE PROPERTY BOUNDARY





Brighton Analytical, L.L.C.

2105 Pless Drive

Brighton, Michigan 48116

Phone: (810) 229-7575 FAX: (810) 229-8650

e-mail: bai-brighton@sbcglobal.net

To: McDowell & Associates

21355 Hatcher Ave.

Ferndale, MI 48220

Sample Date: 11/14/2007

Submit Date: 11/14/2007

Report Date: 11/20/2007

BA Report Number: 95741

BA Sample ID: BO09762

Project Name: 07-14054

Project Number: 07-14054

Sample ID: G-1

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis(Methanol Preserved)						
Benzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Ethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Isopropylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
2-Methylnaphthalene	Not detected	ug/Kg	250	SW846 8260B	RG	11/19/2007
MTBE	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Naphthalene	Not detected	ug/Kg	250	SW846 8260B	RG	11/19/2007
n-Propylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Toluene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,2,3-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,2,4-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,3,5-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Xylenes(total)	Not detected	ug/Kg	150	SW846 8260B	RG	11/19/2007
EPA Method 5035 Methanol Preserv	Extracted			EPA 5035	MCD	11/14/2007
%Solid	94	%		ASTM D-2216	GW	11/19/2007

All soil results based on dry weight.

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by:

Date:

W. J. [Signature]
11/20/07



Brighton Analytical, L.L.C.
 2105 Pless Drive
 Brighton, Michigan 48116
 Phone: (810) 229-7575 FAX: (810) 229-8650
 e-mail: bai-brighton@sbcglobal.net

To: McDowell & Associates
 21355 Hatcher Ave.
 Ferndale, MI 48220

Sample Date: 11/14/2007
 Submit Date: 11/14/2007
 Report Date: 11/20/2007

BA Report Number: 95741
 BA Sample ID: BO09763

Project Name: 07-14054
 Project Number: 07-14054
 Sample ID: G-2

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis(Methanol Preserved)						
Benzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Ethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Isopropylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
2-Methylnaphthalene	Not detected	ug/Kg	250	SW846 8260B	RG	11/19/2007
MTBE	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Naphthalene	Not detected	ug/Kg	250	SW846 8260B	RG	11/19/2007
n-Propylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Toluene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,2,3-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,2,4-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,3,5-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Xylenes(total)	Not detected	ug/Kg	150	SW846 8260B	RG	11/19/2007
EPA Method 5035 Methanol Preserv	Extracted			EPA 5035	MCD	11/14/2007
%Solid	84	%		ASTM D-2216	GW	11/19/2007

All soil results based on dry weight.

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by:

Date:

Utopia
 11/20/07



Brighton Analytical, L.L.C.
 2105 Pless Drive
 Brighton, Michigan 48116
 Phone: (810) 229-7575 FAX: (810) 229-8650
 e-mail: bai-brighton@sbcglobal.net

To: McDowell & Associates
 21355 Hatcher Ave.
 Ferndale, MI 48220

Sample Date: 11/14/2007
 Submit Date: 11/14/2007
 Report Date: 11/20/2007

BA Report Number: 95741
 BA Sample ID: BO09764

Project Name: 07-14054
 Project Number: 07-14054
 Sample ID: G-3

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis(Methanol Preserved)						
Benzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Ethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Isopropylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
2-Methylnaphthalene	Not detected	ug/Kg	250	SW846 8260B	RG	11/19/2007
MTBE	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Naphthalene	Not detected	ug/Kg	250	SW846 8260B	RG	11/19/2007
n-Propylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Toluene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,2,3-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,2,4-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,3,5-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Xylenes(total)	Not detected	ug/Kg	150	SW846 8260B	RG	11/19/2007
EPA Method 5035 Methanol Preserv	Extracted			EPA 5035	MCD	11/14/2007
%Solid	92	%		ASTM D-2216	GW	11/19/2007

All soil results based on dry weight.

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by:

Date:

astroach
 11/20/07



Brighton Analytical, L.L.C.
 2105 Pless Drive
 Brighton, Michigan 48116
 Phone: (810) 229-7575 FAX: (810) 229-8650
 e-mail: bai-brighton@sbcglobal.net

To: McDowell & Associates
 21355 Hatcher Ave.
 Ferndale, MI 48220

Sample Date: 11/14/2007
 Submit Date: 11/14/2007
 Report Date: 11/20/2007

BA Report Number: 95741
 BA Sample ID: BO09765

Project Name: 07-14054
 Project Number: 07-14054
 Sample ID: G-1D

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis(Methanol Preserved)						
Benzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Ethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Isopropylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
2-Methylnaphthalene	Not detected	ug/Kg	250	SW846 8260B	RG	11/19/2007
MTBE	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Naphthalene	Not detected	ug/Kg	250	SW846 8260B	RG	11/19/2007
n-Propylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Toluene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,2,3-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,2,4-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,3,5-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Xylenes(total)	Not detected	ug/Kg	150	SW846 8260B	RG	11/19/2007
EPA Method 5035 Methanol Preserv	Extracted			EPA 5035	MCD	11/14/2007
%Solid	94	%		ASTM D-2216	GW	11/19/2007

All soil results based on dry weight.

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by:

Date:

W. J. [Signature]
 11/20/07



Brighton Analytical, L.L.C.

2105 Pless Drive

Brighton, Michigan 48116

Phone: (810) 229-7575 FAX: (810) 229-8650

e-mail: bai-brighton@sbcglobal.net

To: McDowell & Associates

21355 Hatcher Ave.

Ferndale, MI 48220

Sample Date: 11/14/2007

Submit Date: 11/14/2007

Report Date: 11/20/2007

BA Report Number: 95741

BA Sample ID: BO09766

Project Name: 07-14054

Project Number: 07-14054

Sample ID: MeOH Blk

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis(Methanol Preserved)						
Benzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Ethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Isopropylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
2-Methylnaphthalene	Not detected	ug/Kg	250	SW846 8260B	RG	11/19/2007
MTBE	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Naphthalene	Not detected	ug/Kg	250	SW846 8260B	RG	11/19/2007
n-Propylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Toluene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,2,3-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,2,4-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,3,5-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Xylenes(total)	Not detected	ug/Kg	150	SW846 8260B	RG	11/19/2007

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by:

Date:

Autopel
11/20/07



Brighton Analytical, L.L.C.

2105 Pless Drive

Brighton, Michigan 48116

Phone: (810) 229-7575 FAX: (810) 229-8650

e-mail: bai-brighton@sbcglobal.net

To: McDowell & Associates

21355 Hatcher Ave.

Ferndale, MI 48220

Sample Date: 11/14/2007

Submit Date: 11/14/2007

Report Date: 11/20/2007

BA Report Number: 95741

BA Sample ID: BO09767

Project Name: 07-14054

Project Number: 07-14054

Sample ID: Trip Blank

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis						
Benzene	Not detected	ug/L	1	SW846 8260B	RG	11/19/2007
Ethylbenzene	Not detected	ug/L	1	SW846 8260B	RG	11/19/2007
Isopropylbenzene	Not detected	ug/L	1	SW846 8260B	RG	11/19/2007
2-Methylnaphthalene	Not detected	ug/L	5	SW846 8260B	RG	11/19/2007
MTBE	Not detected	ug/L	1	SW846 8260B	RG	11/19/2007
Naphthalene	Not detected	ug/L	5	SW846 8260B	RG	11/19/2007
n-Propylbenzene	Not detected	ug/L	1	SW846 8260B	RG	11/19/2007
Toluene	Not detected	ug/L	1	SW846 8260B	RG	11/19/2007
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW846 8260B	RG	11/19/2007
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW846 8260B	RG	11/19/2007
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW846 8260B	RG	11/19/2007
Xylenes(total)	Not detected	ug/L	3	SW846 8260B	RG	11/19/2007

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by:

Date:

[Signature]
11/20/07



Brighton Analytical, L.L.C.™
 2105 Pless Drive
 Brighton, MI 48114
 Phone: 810-229-7575
 Fax: 810-229-8650

COMPANY NAME: McDowell & Associates
PROJECT NAME: 07-14054
PROJECT NUMBER: 07-14054

P. O. NUMBER:

REQUESTED TURNAROUND: (circle one)
 Rush: 1-3 business days (verify with lab & specify date needed)
 Expedited: 5 business days
 Standard: 10 business days

HRUSH,
 approved by:

Sampling
 Time Date

Time Date

Sample Description

11/14/07

G-1

G-2

G-3

G-ID

MUOHBIK

TRIP BLK

BA PROJECT #: 9574
ABBREVIATIONS FOR MATRIX
 S = Solid
 L = Liquid
 DW = Drinking H₂O
 WW = Wastewater
 O = Oil
 P = Wipe
 A = Air (Tedlar Bag)
 F = Filter
 T = Tube
 M = Methanol

Container Type & Quantity

VOA'S (PRES) Y N
 HDPE UNPRESERVED
 HDPE HNO₃
 HDPE H₂SO₄
 HDPE NAOH
 AMBER
 GLASS H₂SO₄
 GLASS, NO PRESERVATIVE
 Metal Preserved (Field or Lab Preserved)

Analysis Requested/Method

FOR DISSOLVED METALS (L) LAB TO FILTER (F) FIELD FILTERED
 Sample Matrix
 gasline parameters

REPORT RESULTS TO:
 McDowell Associates

ATTN: Jen Lagerholm
PHONE:
FAX: via email
 Sample received within holding time? yes no

For TCLP ONLY - Federal Limits Other
 Samples intact: yes no (if no, see below)
 Note samples if not intact.
 Headspace/bubbles in VOA'S? yes no n/a
 Sample containers and COC match? yes no

Comments:

TRIP BLK
 (H) med
 (K) Analytical only with results
 Tankage: VITE 27
 Temperature of Samples °C: ICE

PAGE 1 OF 1

Please fill out the Chain of Custody completely and review. Incorrect or incomplete information will result in a "hold" on all analyses.

Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:
1			11/14/07	1:30	3				
2			11/14/07	1:50	4				



BRIGHTON ANALYTICAL, LLC

QUALITY ASSURANCE/QUALITY CONTROL

GC/MS VOLATILE METHOD 8260

REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Analysis Date: November 19, 2007 Standard ID: 1124 Inst./Detec: HPVOL2/GC-MS
 Laboratory ID#: BO09827 Matrix: Water Analyst: RG

SURROGATES	Matrix Spike - Precision *		Relative Percent	Matrix Spike - Accuracy			
	Spike 1	Spike 2		Spk Conc	% Recovery	Range (%)	Method Blank
d4-1,2 Dichloroethane	48.2	48.8	1.2	50ug/L	97%	80-120	98%
D8-Toluene	51.1	50.5	1.2	50ug/L	102%	80-120	101%
4-Bromofluorobenzene	47.8	47.6	0.4	50ug/L	95%	80-120	99%
COMPOUNDS							
1,1-Dichloroethene	46.6	47.9	2.8	50ug/L	95%	74-159	<1
Trichloroethene	38.1	39.3	2.8	50ug/L	77%	73-137	<1
Benzene	42.7	44.0	3.0	50ug/L	87%	77-144	<1
Toluene	43.9	45.6	3.7	50ug/L	90%	78-139	<1
Chlorobenzene	44.1	45.1	2.2	50ug/L	89%	77-131	<1

* Matrix Spike Precision +/-20 Relative Percent Difference.

(ug/L is equivalent to ppb)

Comments:

GC/MS VOLATILE METHOD 8260

REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Analysis Date: November 19, 2007 Standard ID: 1124 Inst./Detec: VOL2GC-MSD
 Laboratory ID#: BO9765 Matrix: Meoh Soil Analyst: RG

SURROGATES	Matrix Spike - Precision *			Matrix Spike - Accuracy			
	Spike 1	Spike 2	Relative Percent Difference	Spk Conc	% Recovery	Range (%)	Method Blank ug/L
d4-1,2- Dichloroethane	47.4	48.4	2.1	50ug/L	96%	80-120	98%
d8-Toluene	50.2	49.9	0.6	50ug/L	100%	80-120	101%
4-Bromofluorobenzene	47.0	46.7	0.6	50ug/L	94%	80-120	99%
1,1-Dichloroethene	46.9	49.6	5.6	50ug/L	97%	47-158	<1
Trichloroethene	63.4	65.0	2.5	50ug/L	128%	70-146	<1
Benzene	43.0	43.9	2.1	50ug/L	87%	80-131	<1
Toluene	43.5	44.5	2.3	50ug/L	88%	83-126	<1
Chlorobenzene	43.3	44.4	2.5	50ug/L	88%	83-127	<1

* Matrix Spike Precision +/-20 Relative Percent Difference.

(ug/L is equivalent to ppb)

Comments:

AGENCY: 761 (MUST BE IN D02 AGENCY PROFILE)
PROJECT NUMBER: U01210
TITLE: STD-FACILITY #0-019067
DESC: SE MICHIGAN
PROJ TYPE: 8 (MUST BE IN D06 PROJECT TYPE)
PROJ GROUP: 001 (MUST BE IN D60 PROJECT GROUP)
PROJ PH BUDGET LEVEL IND: Y (Y OR N - CONTROL BUDGETS AT PHASE LEVEL)
AGY BUD PROJECT LEVEL IND: 0 (0=NO PROJECT, 1=PROJECT, 2=PROJECT/PHASE)
PROJECT CATEGORY: FISCAL YEAR END:
PROJECT MANAGER:
PHONE NO:
REPORT DATES:
AUDIT COMP DATE: AUDIT IND: N
PART FUND AND %: 0001 100.000

EFF START DATE: 12031996 EFF END DATE: STATUS CODE: A
Z02 RECORD SUCCESSFULLY CHANGED LAST PROC DATE: 04191999

F1-HELP F3-DEL F5-NEXT F9-INT F10-SAVE F11-SAVE/CLEAR ENTER-INQ CLEAR-EXIT

INSPECTION REPORT

KLW RECEIVED
MAY 7 1999
2:25 PM
STORAGE TANK DIVISION

Type of Inspection Performed: PIPING INSTALLATION

Type of Facility: PRIVATE AUTOMOTIVE SERVICE STATION

Number of Tanks: 0
STORAGE TANK DIVISION

Site Contact: DENISE MCCLUNG

Site Phone Number: (313) 224-9409

Owner's Representative: DENISE MCCLUNG

Representative's Phone: (313) 224-9409

OWNERSHIP OF TANKS

Owner Name: CITY OF DETROIT/DPW
Address: 1301 E WARREN AVE
2ND FLOOR
DETROIT, MI 48207

LOCATION OF TANKS

Name: ROGELL GOLF COURSE
Address: 18690 BERG RD
DETROIT, MI 48219
County: WAYNE

THE UST SYSTEM(S) AT THIS FACILITY WERE INSPECTED USING THE MICHIGAN UNDERGROUND STORAGE TANK RULES AND APPLICABLE SECTIONS OF THE 1992 MICHIGAN FLAMMABLE AND COMBUSTIBLE LIQUID RULES. THE FOLLOWING VIOLATIONS, IF ANY, WERE NOTED. THE SITE CONTACT PERSON WAS VERBALLY ADVISED OF THE VIOLATIONS AT THE TIME OF INSPECTION.

NO VIOLATIONS CITED

COMMENTS: PIPING INSPECTION THIS DATE.

Inspection Status: NO ACTION TAKEN

Date of Inspection: 05/03/99

Date Compliance is Required: <not applicable>

Signature:

John Lapointe
JOHN LAPOINTE

AUTHORITY: 1994 PA 451 and/or
1941 PA 207

COMPLIANCE: Required

PENALTY: Misdemeanor, Civil Penalties,
and/or Red Tagging the System.

DETROIT OFFICE

300 RIVERPLACE, SUITE 3600
DETROIT, MI 48207
Phone: (313) 392-6521
Fax: (313) 392-6488

UNDERGROUND STORAGE TANKS ANNUAL REGISTRATION INVOICE

Under authority of Part 211, Underground Storage Tanks, of the Natural Resources and Environmental Protection Act, Act 451 of the Public Acts of 1994, as amended, submission of false information and/or failure to pay the required Annual Underground Storage Tank Fee may result in a misdemeanor and/or civil penalties.

SMK AUG 1 4 2001

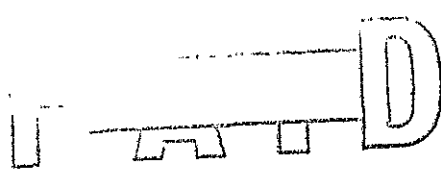
June 1, 2001

Page 1 of 1

Owner Address: CITY OF DETROIT/DPW/CED <i>Accounting</i> 65 CADILLAC Square SUITE 1800 700 DETROIT, MI 48226	Location Address: ROGELL GOLF COURSE 18690 BERG RD DETROIT, MI 48219
--	---

Billing year 2001 annual renewal of registration for tanks on record as of invoice date. Sec. 21101(8) requires payment on closed tanks unless notification prior to the bill year is provided by the owner on the required form. Sec. 21101 (3) requires that the fees be paid at the time of renewal of registration. PLEASE INDICATE FACILITY NUMBER ON PAYMENTS.

Facility Number	Tank Number	Tank Size	Contents	Registration Fee
0-019067	1	560 Gal	Gasoline <i>Current</i> ✓	\$ 100.00
0-019067	2	<Unlisted> Gal	No Description	n/c



Number of Eligible Tanks: 1	Registration Fee: \$ 100.00
Total Number of Tanks: 2	Previous Balance: \$ 200.00
	Miscellaneous Fee: \$
	LUST Penalty Assessment: \$.00
	Amount Received: \$
	Balance: \$ 300.00

Payment Due On Or Before: JULY 28, 2001

Owner Please Note:

Retain canary copy of invoice, make check payable to "State Of Michigan" and send with white (original) copy of invoice to:

UNDERGROUND STORAGE TANK DIVISION
 MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
 P O BOX 30157
 LANSING MI 48909-7657



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTE AND HAZARDOUS MATERIALS DIVISION

Telephone: (517) 373-6247
Facsimile: (517) 335-2245

UNDERGROUND STORAGE TANKS ANNUAL REGISTRATION INVOICE

Under Authority of the Natural Resource and Environmental Protection Act, 1994 PA 451 (NREPA), as amended, submission of false information and/or failure to pay the required Annual Underground Storage Tank Fee may result in a misdemeanor and/or civil penalties.

Fiscal Year: 2003

Invoice Date: June 18, 2003

Page 1 of 1

PAID JUN 21 2003

Owner Address: City of Detroit /DPW/CED ATTN: DPW Accounting 65 Cadillac Square Suite 1000 Detroit, MI 48226	Location Address: Rogell Golf Course 18690 BERG RD DETROIT, MI 48219
--	--

Pursuant to Section 21102(10), Part 211 of NREPA, the owner of an underground storage tank system shall, upon registration or renewal of registration pay a registration fee for each underground tank. Section 21102(10) requires that the owner of an underground storage tank system shall continue to pay registration fees on underground storage tanks that have been closed or removed until notification of the closure or removal is provided on the required form EQP 3821. Please indicate facility number on payments.
 The period of registration is from 5/1/03 to 4/30/04.

Facility Number	Tank Number	Tank Size	Contents	Registration Fee
00019067	1	550 Gal	Gasoline	\$100.00
00019067	2		No Description	\$100.00

RECEIVED
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

JUN 24 2003

By: _____

Fees Paid Fiscal Year

2001	\$ 100.00
2000	\$ 100.00
1999	\$ 100.00

Fiscal Year 2003
2002

Registration Fee:	\$200.00	\$100
Previous Balance:	\$100.00	
Adjustments:	\$0.00	
Penalty Assessment:	\$0.00	
Amount Received:	\$0.00	
Balance Due:	\$300.00	

\$200.00

Payment Due On Or Before : July 31, 2003

Invoice Printed On: June 18, 2003

Owner Please Note :

Facility Number: 00019067

Total Due: \$300.00

For Cashier's Use Only: _____

Make check or money order payable to "State Of Michigan".
Please indicate FACILITY NUMBER on check or money order and send this portion with payment to:

CASHIER'S OFFICE
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
P O BOX 30857
LANSING, MI 48909-8157

INSPECTION REPORT

Type of Inspection Performed: 1999 SUBSTANDARD UST INSPECTION

Type of Facility: PRIVATE AUTOMOTIVE SERVICE STATION

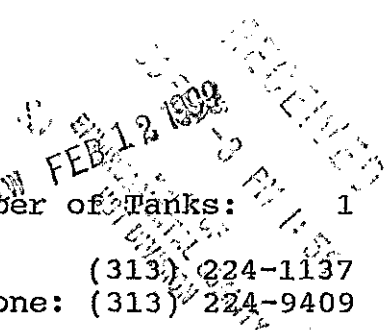
Number of Tanks: 1

Site Contact: SUPERVISOR

Site Phone Number: (313) 224-1137

Owner's Representative: DENISE MCCLUNG

Representative's Phone: (313) 224-9409



OWNERSHIP OF TANKS

Owner Name: CITY OF DETROIT/DPW
Address: 1301 E WARREN AVE
2ND FLOOR
DETROIT, MI 48207

LOCATION OF TANKS

Name: ROGELL GOLF COURSE
Address: 18690 BERG RD
DETROIT, MI 48219
County: WAYNE

THE UST SYSTEM(S) AT THIS FACILITY WERE INSPECTED USING THE MICHIGAN UNDERGROUND STORAGE TANK RULES AND APPLICABLE SECTIONS OF THE 1992 MICHIGAN FLAMMABLE AND COMBUSTIBLE LIQUID RULES. THE FOLLOWING VIOLATIONS, IF ANY, WERE NOTED. THE SITE CONTACT PERSON WAS VERBALLY ADVISED OF THE VIOLATIONS AT THE TIME OF INSPECTION.

1. AN APPROVED RELEASE DETECTION METHOD SHALL BE INITIATED AND PROPERLY MAINTAINED FOR TANKS AND PIPING.
UST 280.40
2. SPILL CONTAINMENT IS REQUIRED AT ALL FILL PIPES.
UST 280.20(C) OR FL/CL PART 2, SECTION 2-10.2
3. OVERFILL PROTECTION IS REQUIRED.
UST 280.20(C) OR FL/CL PART 2, SECTION 2-10.3
4. TANKS AND PIPING THAT ROUTINELY CONTAIN PRODUCT SHALL BE PROTECTED FROM CORROSION.
UST 280.20(A) OR (B) OR FL/CL PART 2, SECTION 2-4.2
5. AN UNDERGROUND STORAGE TANK SYSTEM CAN BE TEMPORARILY CLOSED FOR UP TO 12 MONTHS IF THE SYSTEM IS INTENDED TO BROUGHT BACK INTO SERVICE WITHIN THAT TIME PERIOD. CATHODIC PROTECTION AND RELEASE DETECTION SHALL BE MAINTAINED.
UST 280.70(A)

<<< End of Cited Violations >>>

COMMENTS: THIS IS NOT A COMPLETE INSPECTION. INSPECTOR WAS UNABLE TO REMOVE THE FILL CAP. THE GAUGE LEVEL IS UNKNOWN AT THIS TIME.

Page 02 of 02 Michigan Department of Environmental Quality
Storage Tank Division

RECEIVED
SEP 23 3 11:55
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
STORAGE TANK DIVISION

INSPECTION REPORT

Type of Inspection Performed: 1999 SUBSTANDARD UST INSPECTION

Type of Facility: PRIVATE AUTOMOTIVE SERVICE STATION Number of Tanks: 1

Site Contact: SUPERVISOR Site Phone Number: (313) 224-1137
Owner's Representative: DENISE MCCLUNG Representative's Phone: (313) 224-9409

OWNERSHIP OF TANKS

Owner Name: CITY OF DETROIT/DPW
Address: 1301 E WARREN AVE
2ND FLOOR
DETROIT, MI 48207

LOCATION OF TANKS

Name: ROGELL GOLF COURSE
Address: 18690 BERG RD
DETROIT, MI 48219
County: WAYNE

Cited Violations concluded on previous page.

Inspection Status: TANK(S) ORDERED NOT TO BE FILLED AND ARE TAGGED

Date of Inspection: 01/27/99

Date Compliance is Required: 01/27/99

Signature: John Lapointe
JOHN LAPOINTE

AUTHORITY: 1994 PA 451 and/or
1941 PA 207
COMPLIANCE: Required
PENALTY: Misdemeanor, Civil Penalties,
and/or Red Tagging the System.

DETROIT OFFICE
300 RIVERPLACE, SUITE 3600
DETROIT, MI 48207
Phone: (313) 392-6521
Fax: (313) 392-6488

STATE OF MICHIGAN



JOHN ENGLER, Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

"Better Service for a Better Environment"

HOLLISTER Building, Po box 30473, Lansing MI 48909-7973

INTERNET: www.deq.state.mi.us

RUSSELL J. HARDING, Director

RECEIVED
39 FEB -3 PM 1:55
DEPARTMENT OF ENVIRONMENTAL QUALITY
Reply To:
DETROIT OFFICE
SUITE 3600
300 RIVER PLACE
DETROIT MI 48207

0-019067

ROGELL GOLF COURSE
18690 BERG RD
DETROIT, MI 48219

SUBJECT: Red-Tagging of Substandard Underground Storage Tanks (USTs)

Dear Mr./Ms. DIMOCKLING:

Pursuant to the Michigan Underground Storage Tank Rules (MUSTR), 1999 AACRS R 29.2101 et seq., and the Federal Regulations, 40 CFR 280.10 et seq., owners/operators (O/Os) whose USTs do not meet the December 22, 1998 standards, shall either replace or upgrade the USTs to meet the new standards or permanently close the USTs. Permanent closure shall be conducted in accordance with MUSTR. Storage Tank Division (STD) inspection/records indicate that your UST system(s) do not meet one or more of the following requirements for upgrading: corrosion protection for tanks and piping; overfill prevention; or spill protection.

The STD will permit USTs to be replaced, upgraded, or closed (removed) within 12 months following the December 22, 1998 deadline.

The substandard UST system(s) at this facility was/were red-tagged on this date for the following violations (circled):

Corrosion Protection
Tanks and Piping

Overfill Prevention

Spill Protection

The placement of a red-tag prohibits delivery of product to the UST. Any person who tampers with, removes, or disregards the red-tag notification by filling the UST, is subject to misdemeanor prosecution, and if convicted, punishable by imprisonment for not more than six months, or a fine of not more than \$500.00 or both. The STD may also pursue civil actions including fines of up to \$5,000.00 per day for each violation. In addition, the STD will initiate enforcement actions for past due registration fees and for failure to comply with the Financial Responsibility requirements.

Once the tank(s) are in compliance with the requirements stated above you may contact me at the phone number below. A complete inspection will be conducted to assure compliance prior to removal of the red-tags.

Sincerely,

_____, Hazardous Materials Storage Inspector
Storage Tank Division
(313-392-6521)

THERE MAY BE OTHER OUTSTANDING ISSUES.

1998 RED-TAG SITE VISIT FORM

FACILITY NUMBER; 0-019067 DATE; 1-27-99

FACILITY NAME; ROGELL GOLF COURSE

OWNER NAME; CITY OF DETROIT

CONTACT PERSON ON SITE; D. McCLUNE

RECEIVED
 SUPERVISOR
 PH 1:35
 ENVIRONMENTAL QUALITY
 DETROIT

TANKS INFO	1	2	3	4	5	6	7
TANK ID#	1						
PRODUCT	GASOLINE						
GALLONS	550						
REASON TAGGED							
CATH. TANK	X						
CATH. PIPING	X						
OVERFILL	X						
RELEASE DET.	X						
VERIFIED							
TANK LEVEL	?						

COMMENTS; THIS IS NOT A COMPLETE INSPECTION,
UNABLE TO REMOVE THE FILL CAP TO GAUGE
THE LEVEL.

INSPECTOR; John LaPorte
 (SKETCH FACILITY ON BACK OF FORM SHOWING TANK LOCATIONS.)

BLOG

○ BRASS CAP.

AUTOMOTIVE SERVICE STATION CHECKLIST

INSTRUCTIONS: The Hazardous Materials Storage Inspector shall complete this checklist and attach it to an inspection report, one to be retained in the District file and one for the Headquarters file. All boxes shall be completed inserting N/A where non-applicable.

FACILITY NAME: <u>RECREATION ROSELLE GOLF COURSE</u>		FACILITY ID NUMBER: <u>0-019067</u>
CONTACT PERSON ON SITE: <u>SUPERVISOR</u>		FACILITY TYPE: <u>F-32</u>

PUBLIC AUTOMOTIVE SERVICE STATION (F31) PRIVATE AUTOMOTIVE SERVICE STATION (F32)

FACILITY SECTION

SECTION		CODE	VIO	PASS
4-1	Dispenser violation	S10		
4-1.1	Dispenser location	S11		
4-2.5	Dispenser protected from damage/secured	S13		
4-2.6	Dispenser hose 18 feet or less	S14		
9-1.6	Splash guard on nozzle	S91		
4-3.6	Emergency valve tested	S94		
9-4.5	Emergency power disconnect	S93		
9-8	Fire extinguisher, 75 feet	S59		
9-9	No smoking, stop motor, container	S22		

SECTION		CODE	VIO	PASS
4-2.7	Breakaway on hose	S15		
4-2.12	Containment under dispenser	S17		
4-3.6	Emergency valve installed	S18		
9-1.1	Automatic self-closing nozzle	S19		
9-4.7	Dispenser in view and communicate	S92		
9-9.1	Remain out of vehicle in view	S23		
9-4.6	Operating instructions posted	S25		
	Miscellaneous violation	S50		

LEAK DETECTION SECTION TANKS

280.40	Release detection for tanks	U71	X	
280.43a	Inventory control	S42		
280.43b	Manual tank gauging	S43		
280.43c	Tank tightness testing	S44		
280.43d	Automatic tank gauging	U72		

280.43	Vapor monitoring	U73		
280.43f	Groundwater monitoring	U74		
280.43g	Interstitial monitoring	U75		
280.43h	S.I.R	U93		
280.43h	Other	S49		

LEAK DETECTION SECTION PIPING

280.40	Release detection for piping	U71		
280.44a	Line leak detector installed	U76		
280.41b(1)	Line tightness test/pressure	U88		
3-4.1	Pipe leaks	U62		

280.44c	Interstitial (monthly) monitoring	U94		
280.44a	Line leak detector tested	U95		
280.41b	Line tightness test/suction every 3 years	U89		

RECORD KEEPING

280.34	Record keeping	S60		
280.22a	Properly registered/fees paid	S61		X
280.22h	Display proof of registration	S63		
280.93	Financial Responsibility	U92		

280.34	Cathodic protection records	S64		
280.34	Maintenance records	S65		
280.34	Release detection records	S67		
280.22a	O/O & tank registration info correct	S62		

UNDERGROUND TANK SECTION

280.20	Tank and piping violation	S30		
280.20c	Spill containment	U51	X	
280.20c	Overfill prevention	U52	X	
280.20	Cathodic protection for tanks and piping	U29	X	

280.31b	C/P tested 6 months & 3 years	U30		
2-4.6.5	Location of fill pipe & identified	U46		
2-4.5.1	Vent pipes, 12 feet above grade	U32		
2-4.6.4	Drop tube within 6 inches of tank bottom	U45		

COMMENTS: THIS IS NOT A COMPLETE INSPECTION

U-80

INSPECTOR: John S. [Signature]

DATE: 1-20-99

STATE OF MICHIGAN



JOHN ENGLER, Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

"Better Service for a Better Environment"

HOLLISTER Building, Po box 30473, Lansing MI 48909-7973

INTERNET: www.deq.state.mi.us

RUSSELL J. HARDING, Director

RECEIVED
FEB-2 11:56
DETROIT OFFICE
SUITE 3800
300 RIVER PLACE
DETROIT, MI 48207

0-019067

ROGELL GOLF COURSE
18690 BERG RD
DETROIT, MI 48219

SUBJECT: Red-Tagging of Substandard Underground Storage Tanks (USTs)

Dear ~~Mr.~~Ms. DIMACLANG:

Pursuant to the Michigan Underground Storage Tank Rules (MUSTR), 1999 AACS R 29.2101 et seq., and the Federal Regulations, 40 CFR 280.10 et seq., owners/operators (O/Os) whose USTs do not meet the December 22, 1998 standards, shall either replace or upgrade the USTs to meet the new standards or permanently close the USTs. Permanent closure shall be conducted in accordance with MUSTR. Storage Tank Division (STD) inspection/records indicate that your UST system(s) do not meet one or more of the following requirements for upgrading: corrosion protection for tanks and piping; overfill prevention; or spill protection.

The STD will permit USTs to be replaced, upgraded, or closed (removed) within 12 months following the December 22, 1998 deadline.

The substandard UST system(s) at this facility was/were red-tagged on this date for the following violations (circled):

Corrosion Protection
Tanks and Piping

Overfill Prevention

Spill Protection

The placement of a red-tag prohibits delivery of product to the UST. Any person who tampers with, removes, or disregards the red-tag notification by filling the UST, is subject to misdemeanor prosecution, and if convicted, punishable by imprisonment for not more than six months, or a fine of not more than \$500.00 or both. The STD may also pursue civil actions including fines of up to \$5,000.00 per day for each violation. In addition, the STD will initiate enforcement actions for past due registration fees and for failure to comply with the Financial Responsibility requirements.

Once the tank(s) are in compliance with the requirements stated above you may contact me at the phone number below. A complete inspection will be conducted to assure compliance prior to removal of the red-tags.

Sincerely,

_____, Hazardous Materials Storage Inspector
Storage Tank Division
(313-392-6521)

THERE MAY BE OTHER OUTSTANDING ISSUES.

Page 01 of 01 Michigan Department of Environmental Quality
Storage Tank Division

INSPECTION REPORT

Type of Inspection Performed: FINAL INSTALLATION INSPECTION

Type of Facility: PRIVATE AUTOMOTIVE SERVICE STATION Number of Tanks: 1

Site Contact: DENISE MCCLUNG Site Phone Number: (313) 224-9409
Owner's Representative: DENISEMCCLUNG Representative's Phone: (313) 224-9409

RECORDED
MAY 27 1999
STORAGE TANK DIVISION

OWNERSHIP OF TANKS

Owner Name: CITY OF DETROIT/DPW
Address: 1301 E WARREN AVE
2ND FLOOR
DETROIT, MI 48207

LOCATION OF TANKS

Name: ROGELL GOLF COURSE
Address: 18690 BERG RD
DETROIT, MI 48219
County: WAYNE

THE UST SYSTEM(S) AT THIS FACILITY WERE INSPECTED USING THE MICHIGAN UNDERGROUND STORAGE TANK RULES AND APPLICABLE SECTIONS OF THE 1992 MICHIGAN FLAMMABLE AND COMBUSTIBLE LIQUID RULES. THE FOLLOWING VIOLATIONS, IF ANY, WERE NOTED. THE SITE CONTACT PERSON WAS VERBALLY ADVISED OF THE VIOLATIONS AT THE TIME OF INSPECTION.

NO VIOLATIONS CITED

Inspection Status: FACILITY APPROVED

Date of Inspection: 05/18/99 Date Compliance is Required: <not applicable>

Signature: John Lapointe
JOHN LAPOINTE

AUTHORITY: 1994 PA 451 and/or
1941 PA 207
COMPLIANCE: Required
PENALTY: Misdemeanor, Civil Penalties,
and/or Red Tagging the System.

DETROIT OFFICE
300 RIVERPLACE, SUITE 3600
DETROIT, MI 48207
Phone: (313) 392-6521
Fax: (313) 392-6488

ROGELL GOLF COURSE
113621 BERG RD
DETROIT MI 48219
313-578-8006
U023H

05-18-99 08:03:59

GENERAL SITE SETUP:

STATION HEADER:
ROGELL GOLF COURSE
118601 BERG RD
DETROIT MI 48219
313-578-8006

SERIAL NUMBER:
1192932-003

DATE AND TIME:
05-18-99 08:04:08

LANGUAGE VERSION:
ENGLISH

LOCAL PORT SETUP:

2400 BAUD
8 DATA BITS
1 STOP BITS
NO PARITY
SECURITY CODE
REQUIRED: NO

MODEM PORT SETUP:

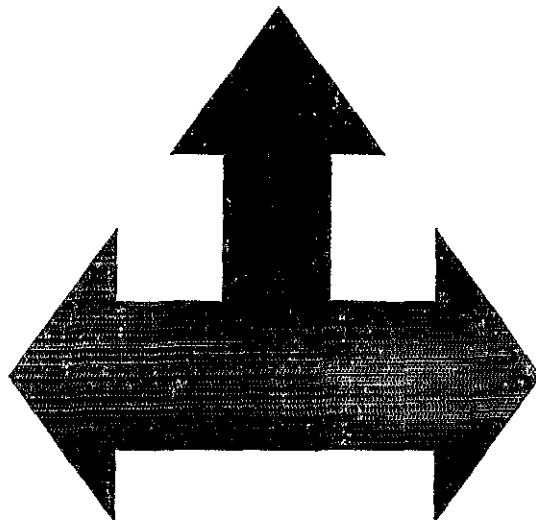
2400 BAUD
8 DATA BITS
1 STOP BITS
NO PARITY
USED IN LOCAL MODE

SECURITY CODE
REQUIRED: NO

SYSTEM UNITS:

HEIGHT: INCHES
VOLUME: US GAL
TEMPERATURE:
FAHRENHEIT

USE ALTERNATE ERROR
HANDLING: NO



TANK LEVEL MONITOR
SETUP:

TANK 1 - ACTIVE

LABEL: 560GAL GAS

PROBE SPECIFICATIONS:

PROBE #1

INPUT CHANNEL # 1

SERIAL #:

145008-N03

4' STANDARD PROBE

GAUGE TYPE: EXTENDED

STROKE LENGTH:

53.20"

NUMBER OF RTDS: 5

RTD LOCATIONS:

5.62"

15.34"

22.78"

30.11"

38.47"

TIMING FACTOR:

9.0753 USEC/INCH

WATER CALIBRATION:

+3.96"

PRODUCT CALIBRATION:

+3.79"

PRODUCT #1:

REG UNLEAD

CTE: 0.00060650/°F

API: 59

SP. GRAVITY: 0.74278

PRODUCT FLOAT:

NITROPHYL 4" PRODUCT

WEIGHT: 0.12 LBS

VOLUME: 12.18

AREA: 9.81 SQ"

MAGNET OFFSET: 2.75

WATER FLOAT:

NITROPHYL 4" GAS/WAT

WEIGHT: 0.37 LBS

VOLUME: 12.18

AREA: 9.78 SQ"

MAGNET OFFSET: 2.75

TANK TABLE SETUP:

HORIZONTAL STEEL CYLIN

DRICAL

LENGTH: 115.90 INCH

3

DIAMETER: 38.20 INCH
ES

FULL VOLUME: 569.00
US GAL

PITCH: +0.00 "

LEAK TEST PRECISION:
0.2 GPH

ALARM SETUP:

HIGH PRODUCT LEVEL:

90% OF FULL VOLUME

HIGH PRODUCT ACTION:

10 SECONDS AND RESET

LOW PRODUCT LEVEL:

15.00 %

(85 US GAL)

HIGH WATER LEVEL:

2.00"

ULLAGE LEVEL:

90%

0.1 LEAK TEST REQUIRED

ALARM: INACTIVE

0.2 LEAK TEST REQUIRED

ALARM: INACTIVE

THEFT ALARM:

INACTIVE

PRINT DELIV. REPORT:

YES

DELIVERY THRESHOLD:

50 US GAL

PRECISION TEST MODE:

CONTINUOUS

TANK 2 - INACTIVE

LABEL: LABEL TK 2

STORE 0.1 GPH TESTS:
YEARLY

STORE 0.2 GPH TESTS:
MONTHLY

STORE 0.1 GPH
TESTS > 14% FULL VOL

STORE 0.2 GPH
TESTS > 14% FULL VOL

DO 0.1 TESTS AFTER

STORE REQ'S MET: YES

DO 0.2 TESTS AFTER

STORE REQ'S MET: YES

DISPLAY/PRINT NET

VOLUMES: YES

MANIFOLDED TANK GROUP 1:

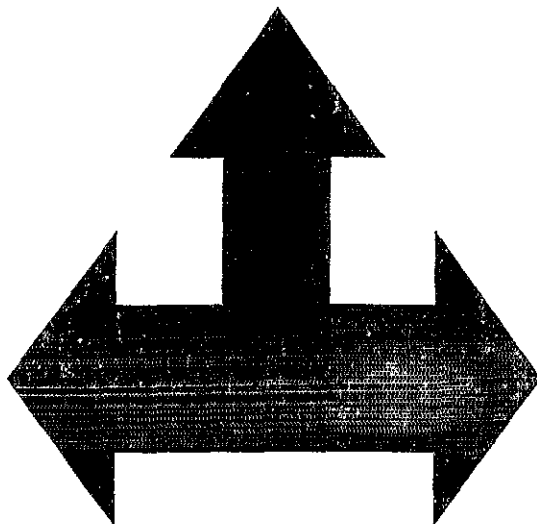
INACTIVE

LABEL: MAN TK GR1

MANIFOLDED TANK GROUP 2:

INACTIVE

LABEL: MAN TK GR2



LEAKSENSOR SETUP:

CHANNEL 1 IMO
ACTIVE
LABEL: SUMP SENSR
TYPE: DISPENSER PAN

CHANNEL 2 IMO
ACTIVE
LABEL: INTERSTIAL
TYPE: N CLOSED SWITCH

CHANNEL 3 IMO
INACTIVE
LABEL: LABEL CH 3

CHANNEL 4 IMO
INACTIVE
LABEL: LABEL CH 4

CHANNEL 5 IMO
INACTIVE
LABEL: LABEL CH 5

CHANNEL 6 IMO
INACTIVE
LABEL: LABEL CH 6

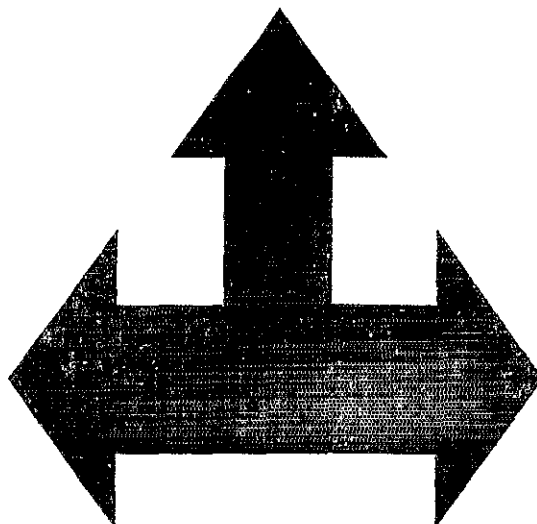
CHANNEL 7 IMO
INACTIVE
LABEL: LABEL CH 7

CHANNEL 8 IMO
INACTIVE
LABEL: LABEL CH 8

GENERATOR THRESHOLD:
5 US GAL

DPAN SENSORS
SENSITIVITY: HIGH

SUMP SENSORS
SENSITIVITY: HIGH



RELAY SETUP:
(X=ACTIVATES RELAY)

LEAKSENSOR ALARMS:
LS 2 (X)

LEAKSENSOR FUEL ALARMS:
LS 1 (X)

LEAKSENSOR HI FUEL:
LS 1 | |

LEAKSENSOR WATER/DRY:
LS 1 | |

LEAKSENSOR HI WATER:
LS 1 (X)

TLM THEFT ALARMS:
TANK 1 | |

TLM HI PRODUCT ALARMS:
TANK 1 | |

TLM LOW PRODUCT ALARMS:
TANK 1 | |

TLM 0.1 TEST REQUIRED:
TANK 1 | |

TLM 0.2 TEST REQUIRED:
TANK 1 | |

TLM HIGH WATER ALARMS:
TANK 1 (X)

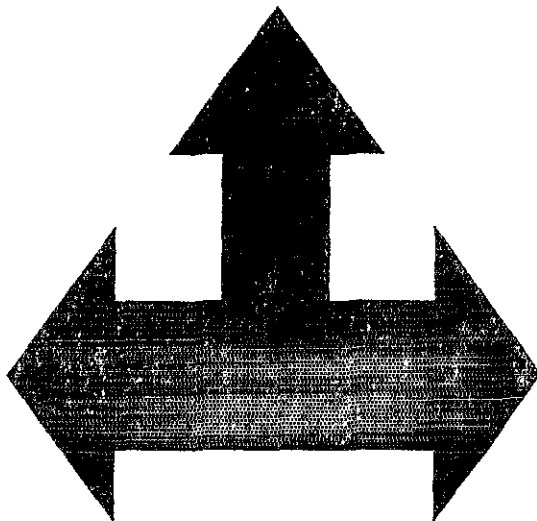
TLM LEAK TEST FAIL:
TANK 1 (X)

SHIFT REPORT SETUP:

REPORT 1 DISABLED

REPORT 2 DISABLED

REPORT 3 DISABLED



AUTOMOTIVE SERVICE STATION CHECKLIST

INSTRUCTIONS: The Hazardous Materials Storage Inspector shall complete this checklist and attach it to an inspection report, one to be retained in the District file and one for the Headquarters file. All boxes shall be completed inserting N/A where non-applicable.

FACILITY NAME: <u>ROGELL GOLF COURSE</u>		FACILITY ID NUMBER: <u>0-019067</u>
CONTACT PERSON ON SITE: <u>DENISE MCCUNE</u>		FACILITY TYPE: <u>F32</u>

PUBLIC AUTOMOTIVE SERVICE STATION (F31) PRIVATE AUTOMOTIVE SERVICE STATION (F32)

FACILITY SECTION

SECTION		CODE	VIO	PASS
4-1	Dispenser violation	S10		
4-1.1	Dispenser location	S11		X
4-2.5	Dispenser protected from damage/secured	S13		X
4-2.6	Dispenser hose 18 feet or less	S14		X
9-1.6	Splash guard on nozzle	S91		X
4-3.6	Emergency valve tested <u>subm</u>	S94	N/A	
9-4.5	Emergency power disconnect	S93		X
9-8	Fire extinguisher, 75 feet	S59	X	
9-9	No smoking, stop motor, container	S22		X

SECTION		CODE	VIO	PASS
4-2.7	Breakaway on hose	S15		X
4-2.12	Containment under dispenser	S17		X
4-3.6	Emergency valve installed	S18		X
9-1.1	Automatic self-closing nozzle	S19		X
9-4.7	Dispenser in view and communicate	S92		X
9-9.1	Remain out of vehicle in view	S23		X
9-4.6	Operating instructions posted	S25		X
	Miscellaneous violation	S50		

LEAK DETECTION SECTION TANKS

		CODE	VIO	PASS
280.40	Release detection for tanks	U71		X
280.43a	Inventory control	S42		X
280.43b	Manual tank gauging	S43		X
280.43c	Tank tightness testing <u>new</u>	S44		X
280.43d	Automatic tank gauging	U72		X

		CODE	VIO	PASS
280.43	Vapor monitoring	U73		
280.43f	Groundwater monitoring	U74		
280.43g	Interstitial monitoring	U75		
280.43h	S.I.R.	U93		
280.43h	Other	S49		

LEAK DETECTION SECTION PIPING

		CODE	VIO	PASS
280.40	Release detection for piping	U71		X
280.44a	Line leak detector installed <u>new</u>	U76		X
280.41b(1)	Line tightness test/pressure	U88		X
3-4.1	Pipe leaks	U62		X

		CODE	VIO	PASS
280.44c	Interstitial (monthly) monitoring	U94		X
280.44a	Line leak detector tested	U95		X
280.41b	Line tightness test/suction every 3 years <u>new</u>	U89		

RECORD KEEPING

		CODE	VIO	PASS
280.34	Record keeping <u>new</u>	S60		X
280.22a	Properly registered/fees paid	S61	X	
280.22h	Display proof of registration	S63		
280.93	Financial Responsibility	U92		X

		CODE	VIO	PASS
280.34	Cathodic protection records	S64		X
280.34	Maintenance records <u>new</u>	S65		X
280.34	Release detection records	S67		
280.22a	O/O & tank registration info correct	S62		X

UNDERGROUND TANK SECTION

		CODE	VIO	PASS
280.20	Tank and piping violation	S30		X
280.20c	Spill containment	U51		X
280.20c	Overfill prevention	U52		X
280.20	Cathodic protection for tanks and piping	U29		X

		CODE	VIO	PASS
280.31b	C/P tested 6 months & 3 years	U30		X
2-4.6.5	Location of fill pipe & identified	U46		X
2-4.5.1	Vent pipes, 12 feet above grade	U32		X
2-4.6.4	Drop tube within 6 inches of tank bottom	U45		X

COMMENTS: 12" VAC 560 GALLON MODERN GLASSER ULM 637054
BAD GLASS CLAD AND BEING IN 1 INCH PLUS VOID

INSPECTOR: John [Signature] DATE 4/27/99



STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
STORAGE TANK DIVISION

FACILITY INSPECTION REPORT

RECEIVED
09 JUN -7 PM 1:27
DEQ
STORAGE TANK DIVISION

Owner Name & Address:

CITY OF DETROIT/DPW/CED
65 CADILLAC SW SUITE 1800
DETROIT, MI 48226

Location of Tanks:

ROGELL GOLF COURSE
Facility ID 00019067
18690 BERG RD
DETROIT, WAYNE County
Facility Type - Private Automotive Service

ATTENTION: DENISE MCCLUNG

A(n) 1999 Substandard Ust Inspection was conducted on January 27, 1999, at the above-subject facility for compliance with Part 211, Underground Storage Tank Regulations, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), the Michigan Underground Storage Tank Rules (MUSTR), 1999 AACS R 29.2101 et seq. and the applicable sections of the rules for the Storage and Handling of Flammable and Combustible Liquids, 1992 AACS R 29.4101 et seq. The inspection showed that the tank(s) was de-tagged.

- 1 AN APPROVED RELEASE DETECTION METHOD SHALL BE INITIATED AND PROPERLY MAINTAINED FOR TANKS AND PIPING.
UST 280.40
- 2 SPILL CONTAINMENT IS REQUIRED AT ALL FILL PIPES.
UST 280.20(C) OR FL/CL Part 2, Section 2-10.2
- 3 OVERFILL PROTECTION IS REQUIRED.
UST 280.20(C) OR FL/CL Part 2, Section 2-10.3
- 4 TANKS AND PIPING THAT ROUTINELY CONTAIN PRODUCT SHALL BE PROTECTED FROM CORROSION.
UST 280.20(A) OR (B) OR FL/CL Part 2, Section 2-4.
- 5 AN UNDERGROUND STORAGE TANK SYSTEM CAN BE TEMPORARILY CLOSED FOR UP TO 12 MONTHS IF THE SYSTEM IS INTENDED TO BROUGHT BACK INTO SERVICE WITHIN THAT TIME PERIOD. CATHODIC PROTECTION AND RELEASE DETECTION SHALL BE MAINTAINED.
UST 280.70(A)

THIS IS NOT A COMPLETE INSPECTION. INSPECTOR WAS UNABLE TO REMOVE THE FILL CAP. THE GAUGE LEVEL IS UNKNOWN AT THIS TIME.

The inspection and violations (if any) were discussed with SUPERVISOR at the time of the inspection.

If you have additional questions concerning this matter, please contact me.



John LaPointe
Hazardous Materials Storage Inspector
DETROIT FIELD OFFICE
Cadillac Place
3058 West Grand Blvd Suite 2-300
Detroit, MI 48202 - 6058
Phone: (313) 456-4672
Fax: (313) 456-4662

Date



UNDERGROUND STORAGE TANK PLAN REVIEW REPORT

This information is required under Part 211, Underground Storage Tank Regulations, of the Natural Resources and Environmental Protection Act, Act 451 of the Public Acts of 1994, being Sections 324.21101 to 324.21113 of the Michigan Compiled Laws Annotated. Any owner who knowingly fails to notify or submits false information shall be subject to a misdemeanor and/or civil penalties not to exceed \$5000 per day for each tank for which notification is not given or for which false information is submitted.

<input type="checkbox"/> PRELIMINARY	<input checked="" type="checkbox"/> FINAL	DATE June 25, 1997	TANK NUMBER(S) 2	FACILITY NUMBER 0-019067
ARCHITECT/ENGINEER/INSTALLER Joseph Saeed MS Consulting Engineers 26699 W. 12 Mile Road, Suite 200 Southfield, MI 48034		PROJECT: Recreation Rogell Golf Course ADDRESS: 18690 Berg Road Detroit, MI 48207 COUNTY: Wayne		

Following a review of the submitted underground storage tank installation - pre-registration information, no major deficiencies were noted. **However, please be sure the following requirements are met.**

When using sump sensors: the piping shall be sloped sufficiently towards the sensor; the sensor shall be mounted where it will detect both leaking product and infiltrating water; the sump housing the sensor shall be liquid-tight; the sensor shall be capable of detecting both fuel and water; and the sensor shall SHUT OFF POWER TO ALL DISPENSING DEVICES when activated unless a line leak detector is installed in the line.

Each dispensing device shall not be located less than 10 feet from property lines, openings to buildings of noncombustible wall construction, and buildings of combustible wall construction. Openings beneath enclosures shall be sealed to prevent the flow of leaking fuel to lower building spaces.

A clearly identified and easily accessible switch or circuit breaker to shut off the power to all dispensing devices in the event of an emergency shall be installed at least 20 feet but not more than 100 ft from dispensers.

Hazardous Materials Storage Inspector **John LaPointe** of our Department of Environmental Quality office in Detroit, telephone number **(313) 392-6521**, must be notified to schedule inspections **NOT LESS THAN SEVEN CALENDAR DAYS BEFORE INSTALLATION** of the UST system as required in the Michigan Underground Storage Tank Rules. **This installation may not be placed into service until DEQ personnel have conducted a final inspection, or if the inspection is not made within two working days of the scheduled installation date, excluding Saturdays, Sundays, and holidays, the UST system may be covered from sight and a notarized affidavit shall be submitted by the owner to this office attesting to the fact that the installation complies with applicable rules.**

Rule 1, Section 280.93 of the Michigan Underground Storage Tank Rules, 1990 AACRS, R29.2301, et seq., requires owners or operators of petroleum underground storage tanks to provide evidence of financial responsibility at the time of inspection.

Provide certification of compliance with the National Electrical Code at final inspection.

If this system is not installed within one year, please contact this office for possible resubmittal of plans.

Pursuant to Public Act 451 of 1994, Part 211, it is the owner's responsibility that a tank registration form accompanied by a check for the \$100.00 per tank fee be forwarded to this office after the tank has been installed and prior to use.

If you have any questions, please contact the Technical Review Unit at 517-373-8168 between the hours of 10:00 a.m. - 12:00 p.m. and 1:00 p.m. - 3:00 p.m.

Peter G. Funkhouser

Peter G. Funkhouser
 Technical Review Unit

cc: DEQ Detroit



Wayne

NOTICE OF PROPOSED INSTALLATION OF UNDERGROUND STORAGE TANKS

Pre-Registration for Underground Storage Tanks

This information is required under Part 211, Underground Storage Tank Regulations, of the Natural Resources and Environmental Protection Act, Act 451 of the Public Acts of 1994, being Sections 324.21101 to 324.21113 of the Michigan Compiled Laws Annotated. Any owner who knowingly fails to notify or submits false information shall be subject to a misdemeanor and/or civil penalties not to exceed \$5000 per day for which notification is not given or for which false information is submitted.

INSTRUCTIONS: This "Notice" must be completed and submitted to the Underground Storage Tank Division (USTD) a minimum of 45 days prior to installation of the underground storage tank system. **THE UST SYSTEM SHALL NOT BE BROUGHT INTO USE UNTIL A REGISTRATION FOR UNDERGROUND STORAGE TANKS, FORM EQP3821, IS COMPLETED AND SUBMITTED TO THE USTD ALONG WITH THE \$100.00 PER TANK REGISTRATION FEE.** Complete the required information in accordance with the Michigan Underground Storage Tank Rules (MUSTR) and the State Flammable and Combustible Liquids Rules (FL/CL) Parts 2 & 3 for underground installations as cited below. The manufacturer and part number must be indicated next to the appropriate item. This form is for review purposes only. It is not intended to list all of the requirements that may be applicable. Please direct any questions to the Technical Review Unit at (517) 373-8168.

FACILITY NAME <i>Recreation Rosell Golf Course</i>	NEW ASSIGNED TANK NUMBER(S) <i>2</i>	FACILITY NUMBER <i>0-019067</i>
FACILITY STREET ADDRESS (PO BOX NOT ACCEPTABLE) <i>1890 Berg Rd.</i>	CONTACT PERSON (AT LOCATION) <i>Ron Brundidge</i>	AREA CODE & TELEPHONE NUMBER <i>(313) 833 7296</i>
CITY <i>Detroit</i>	STATE <i>MI</i>	ZIP CODE <i>48207</i>
SUBMITTER'S NAME <i>Joseph Saeed - MS Consultant</i>	STREET ADDRESS <i>26699 W. 12 mile Rd Suite 200</i>	AREA CODE & TELEPHONE NUMBER <i>(910) 358-3480</i>
CITY <i>Southfield</i>	STATE <i>MI</i>	ZIP CODE <i>48034</i>

ITEM NO.	DESCRIPTION	MANUFACTURER & PART NO.	ITEM NO.	DESCRIPTION	MANUFACTURER & PART NO.
1.	TANK DESIGN AND CONSTRUCTION: Section 280.20(a), 280.20(d), 280.32 & Section 2-2 of FL/CL Part 2. Concrete; Steel-UL58; Fiberglass - UL 1316. Corrosion protection - ACT 100. Dimension, Capacity & Contents.	<i>560 gallon Chlorson's perma-tank, UL 1746 Labeled double-wall tank. UL-58 steel primary tank enclosed within FRP secondary containment tank.</i>	5.	ANCHORING OF TANK: Section 2-6.6.3 of FL/CL Part 2. In areas subject to flooding or high water table. NOTE: Tie-down straps.	<i>Glass-fiber Reinforced plastic anchor STRAPS WITH CONCRETE HOLD DOWN PAD</i>
2.	BURIAL DEPTH COVER: Section 2-4.2 of FL/CL Part 2. Minimum 2' or 1' earth & 4" reinforced concrete with no vehicular traffic. Minimum 3' or 18" earth & 6" concrete or 8" asphalt with vehicular traffic.	<i>3'-0" Burial depth cover and 8" thick concrete slab</i>	6.	CORROSION PROTECTION FOR TANK: Section 280.20(a) & Section 2-4.3 of FL/CL Part 2. Fiberglass tanks, steel tanks with cathodic protection, composite steel tanks, are acceptable.	<i>NA Double wall steel primary TANK Enclosed within 180° FRP Secondary Containment tank</i>
3.	BACKFILL MATERIAL SURROUNDING TANK: Section 2-4.2 of FL/CL Part 2. Minimum 6" sand or pea gravel-steel; minimum 12" pea gravel-fiberglass.	<i>Pea gravel Sand</i>	7.	MONITORING OF CATHODIC PROTECTION: Section 280.31. Test station-wires to ground surface for access.	<i>NA, FRP Secondary Containment Tank</i>
4.	TANK LOCATION: Section 280.20(d) & Section 2-4.1 of FL/CL Part 2. 10' from basement wall, pit or property line; also to avoid loads transmitted by building foundation-tank outside 45 degree angle.	<i>NA Not within the limits</i>	8.	PIPING MATERIAL: Section 280.20(b), 280.20(d), 280.32 & Section 3-3 of FL/CL Part 2. Single or double-walled steel, fiberglass, or other approved material. Metallic piping shall be cathodically protected and dielectrically isolated.	<i>Fuel line 2" Envr of lex Corrice within 4" Containment Pipe Vent line 2" Envr o vent By Total Containment</i>



NOTICE OF PROPOSED INSTALLATION OF UNDERGROUND STORAGE TANKS

Pre-Registration for Underground Storage Tanks

ITEM NO.	DESCRIPTION	MANUFACTURER & PART NO.	ITEM NO.	DESCRIPTION	MANUFACTURER & PART NO.
9.	CORROSION PROTECTION FOR PIPING: Section 280.20(b). Metallic piping (including flexible connectors) requires cathodic protection; and dielectric couplings at tank and dispenser to isolate the piping.	NA Fiberglass piping	15.	OVERFILL PROTECTION: Section 280.20(c) (1) (ii). Audible alarm or flow restricted when tank is 90% full, or an automatic shut-off of flow into the tank when the tank is 95% full.	OPW-6150P over-fill protection valve for gasoline fuel
10.	RELEASE DETECTION FOR TANK & PIPING: Section 280.40(a), Section 280.41 & Section 280.42. Must be able to detect a release from any portion of the tank and piping.	TANK: Interstitial sensor PIPING: piping sump sensor and dispenser pan sensor	16.	SPILL PROTECTION AROUND FILL PIPE: Section 280.20(c). Equipment to prevent release of product to the environment when the transfer hose is detached from the fill pipe. Sealed to prevent entry of product into the ground.	OPW-1-2100 5gallon Spill container around fill pipe.
11.	VENT PIPING: Section 2-4.5 of FL/CL Part 2. Steel above ground; outlet above snow level, minimum 12 feet above grade, and 3 feet above roof line.	2" Schedule 40 galvanized steel above ground terminated 3' above roofline and 2" fiberglass vent pipe unground	17.	AREA BENEATH & AROUND DISPENSER: Section 4-2.12, Section 9-6 of FL/CL Part 3. Prevent leaks and spills from reaching groundwater, surface water, and subsurface soils.	Finished grade to slope away from ground water, surface water and subsurface soils.
12.	EMERGENCY SHEAR/FIRE VALVE: Section 4-3.6 of FL/CL Part 3. Required on submerged pumping systems, rigidly anchored. Suction systems require check valve or pressure regulating valve under the dispenser.	OPW-10RFP Emergency shut-off valve below dispenser suction pump	18.	PROTECTION AGAINST COLLISION: Section 4-2.5 of FL/CL Part 3. Raised concrete island or crash posts. NOTE: Local ordinances may be more stringent.	Raised concrete island and guard posts
13.	EMERGENCY BREAKAWAY DEVICE: Section 4-2.7 of FL/CL Part 3. Installed on each hose that dispenses a liquid. Designed to retain liquid on both sides of the breakaway point.	OPW 66 hose breakaway device	19.	DISPENSING DEVICE AND NOZZLE: Section 4-2.2, Section 4-2.6 of FL/CL Part 3. Must be listed and identified as to product it dispenses. Splash guard required on nozzle.	Bennett - flexmaster 300 series (all listed and product is labeled splash guard is provided on nozzle
14.	LOCATION OF DISPENSER: Section 4-1.1, 9-4.5, & 9-4.7 of FL/CL Part 3. 10' from property lines, combustible building walls, and building openings. In clear view of attendant. Within 100' of emergency shut-off switch for self-serve.	NA Not within the limits	20.	HOLD OPEN DEVICE ON NOZZLE: Section 9-1 of FL/CL Part 3. Allowed. Self-service needs special feature of nozzle that prevents resumption of flow once pump is stopped.	Automatic closing type hose nozzle valve with latch-open device

IMPORTANT: Attach the following information to the white and canary copies of this "Notice".

21. A plot plan showing structures, roads, railroads, property lines, and easements within 25 feet of the UST system. Section 280.22.
22. The location of all applicable drinking water wells and surface water intakes within 2000 feet of the UST system. Section 280.22.
23. A diagram of the UST system. Section 280.22.

INSPECTION REPORT

RECEIVED
MAY 11 1999
6:18

Type of Inspection Performed: SITE INSPECTION

Type of Facility: PRIVATE AUTOMOTIVE SERVICE STATION

Number of Tanks: 0
STORAGE TANK DIVISION

Site Contact: DENISE MCCLUNG

Site Phone Number: (313) 224-9409

Owner's Representative: DENISE MCCLUNG

Representative's Phone: (313) 224-9409

OWNERSHIP OF TANKS

Owner Name: CITY OF DETROIT/DPW
Address: 1301 E WARREN AVE
2ND FLOOR
DETROIT, MI 48207

LOCATION OF TANKS

Name: ROGELL GOLF COURSE
Address: 18690 BERG RD
DETROIT, MI 48219
County: WAYNE

THE UST SYSTEM(S) AT THIS FACILITY WERE INSPECTED USING THE MICHIGAN UNDERGROUND STORAGE TANK RULES AND APPLICABLE SECTIONS OF THE 1992 MICHIGAN FLAMMABLE AND COMBUSTIBLE LIQUID RULES. THE FOLLOWING VIOLATIONS, IF ANY, WERE NOTED. THE SITE CONTACT PERSON WAS VERBALLY ADVISED OF THE VIOLATIONS AT THE TIME OF INSPECTION.

NO VIOLATIONS CITED

COMMENTS: INSPECTED 1-560 GALLON TANK THIS DATE BY MODERN GLASTEEL UL# M637054 WITH 12 INCHES OF VACUUM. THIS TANK MAY NEED SOME OUTER SHELL REPAIR IN THE BUNG AREA. PLEASE ADDRESS THIS AREA BEFORE INSTALLING. WATER IS ABLE TO ENTER THE INTERSTACIAL SPACE.

Inspection Status: NO ACTION TAKEN

Date of Inspection: 04/27/99

Date Compliance is Required: <not applicable>

Signature:

John Lapointe
JOHN LAPOINTE

AUTHORITY: 1994 PA 451 and/or
1941 PA 207

COMPLIANCE: Required

PENALTY: Misdemeanor, Civil Penalties,
and/or Red Tagging the System.

DETROIT OFFICE

300 RIVERPLACE, SUITE 3600
DETROIT, MI 48207
Phone: (313) 392-6521
Fax: (313) 392-6488

INSPECTION REPORT

Type of Inspection Performed: CLOSURE INSPECTION

Type of Facility: PRIVATE AUTOMOTIVE SERVICE STATION Number of Tanks: 0

Site Contact: DENISE MCCLUNG Site Phone Number: (313) 224-9409
Owner's Representative: DENISE MCCLUNG Representative's Phone: (313) 224-9409

OWNERSHIP OF TANKS

Owner Name: CITY OF DETROIT/DPW
Address: 1301 E WARREN AVE
2ND FLOOR
DETROIT, MI 48207

LOCATION OF TANKS

Name: ROGELL GOLF COURSE
Address: 18690 BERG RD
DETROIT, MI 48219
County: WAYNE

THE UST SYSTEM(S) AT THIS FACILITY WERE INSPECTED USING THE MICHIGAN UNDERGROUND STORAGE TANK RULES AND APPLICABLE SECTIONS OF THE 1992 MICHIGAN FLAMMABLE AND COMBUSTIBLE LIQUID RULES. THE FOLLOWING VIOLATIONS, IF ANY, WERE NOTED. THE SITE CONTACT PERSON WAS VERBALLY ADVISED OF THE VIOLATIONS AT THE TIME OF INSPECTION.

NO VIOLATIONS CITED

COMMENTS: INSPECTED 1-560 GALLON TANK THIS DATE. THERE WAS A HOLE IN THE BOTTOM OF THE TANK CAUSING A RELEASE.THE UST OWNER IS RESPONSIBLE FOR PROVIDING TO THE MDEQ A CONFIRMED RELEASE REPORT AND A CLOSURE REGISTRATION FORM.THE REMOVAL OF THIS TANK MEETS THE REQUIREMENTS OF THE DECEMBER 22,1998 REQUIREMENTS.

Inspection Status: NO ACTION TAKEN

Date of Inspection: 04/27/99 Date Compliance is Required: <not applicable>

Signature: *John Lapointe*
JOHN LAPOINTE

AUTHORITY: 1994 PA 451 and/or
1941 PA 207
COMPLIANCE: Required
PENALTY: Misdemeanor, Civil Penalties,
and/or Red Tagging the System.

DETROIT OFFICE
300 RIVERPLACE, SUITE 3600
DETROIT, MI 48207
Phone: (313) 392-6521
Fax: (313) 392-6488

UST CLOSURE INSPECTION CHECKLIST

INSTRUCTIONS: The Hazardous Materials Storage Inspector (HMSI) will complete this checklist and attach it to an inspection report to be retained in the Headquarters file. An Environmental Quality Analyst (EQA) or Geologist will complete this checklist if they are at a tank closure in lieu of an HMSI. If a release is reported, make a copy for the LUST District file. All boxes should be completed, inserting "NA" if not applicable.

Facility/ Site Name ROGELL GOLF COURSE	Contact Person DENISE MCCLUNG	Phone No 313 824 9409
Facility Address 18690 BERG RD	City DETROIT	Facility ID# 0209067
O/O Name CITY OF DETROIT	O/O Address	Phone No
Tank Identification: (per registration) 1	Product Identification CASOLINE	Date(s) of activity 4/27/99

Photos Taken Site Sketch Attached

PRE-CLOSURE

	YES	NO	COMMENTS/TANK ID
30-Day Notification submitted	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Removal Contractor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	INLAND WATERS
Certificate of Insurance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

TANK REMOVAL

	YES	NO	COMMENTS/TANK ID
Tank(s) Emptied (Date/Amount)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4/27/99 UNKNOWN
Tank(s) Purged (Method)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Piping Removed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Piping Cleaned and Capped	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

EXCAVATION ASSESSMENT

	YES	NO	COMMENTS/TANK ID
Holes Present in Tank	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ON BOTTOM
Leaks in Piping (Location)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Stained Soils Noted (Location)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NOT ON SITE FOR THIS
Leaks Under Dispenser(s) (Location)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Odors Noted in Soils (Location)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Water Present in Excavation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(approx. depth to groundwater)
Sheen or Free Product Observed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Overfills At Fill Pipe(s) Noted	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
*Samples Collected (by whom)	<input type="checkbox"/>	<input type="checkbox"/>	BRIAN TRENT
Environmental Consultant	<input type="checkbox"/>	<input type="checkbox"/>	NTH

TANK ABANDONMENT IN PLACE

	YES	NO	COMMENTS/TANK ID
Tank Threatens Structure	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Tank Not Accessible	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Tank Cleaned/Purged	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Fill Material (Identify)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
*Samples Collected (by whom)	<input type="checkbox"/>	<input type="checkbox"/>	

COMMENTS (Note additional comments on back)

STD Representative
(HMSI/EQA/Geologist)

[Signature]
(signature)

DATE: **4-27-99**

*site assessment samples pursuant to Rule 55, section 280.72 of the Michigan Underground Storage Tank Rules (MUSTR). The information on this checklist only reflects what was observed during the time period the Storage Tank Division (STD) representative was on site. It is not representative of site conditions, etc. during the full period of UST closure.

Additional Comments

[The page contains approximately 30 horizontal lines of text that are extremely faint and illegible due to the quality of the scan. The text appears to be a list or series of entries, but no specific content can be discerned.]

19067

65 CADILLAC SQUARE, STE. 900
DETROIT, MICHIGAN 48226
PHONE 313•224•3949
FAX 313•224•3471
WWW.CI.DETROIT.MI.US

CITY OF DETROIT
DEPARTMENT OF PUBLIC WORKS
CITY ENGINEERING DIVISION
MAR 26 2007

March 15, 2007

Michigan Department of Environmental Quality
Waste and Hazardous Materials Division-Storage Tank Division
Lansing MI 48909
Attn: Stella Konadu

RE: Change in Owners Name/Address and Contact Person

This is to bring to your notice that there is a change in owner's name/address and contact person name for the listed Underground Storage Tank facilities that were operated earlier by Department of Public Works. Now the facilities are operated by General Services Department (GSD).

The List of facilities with other details is attached to for your information.

The new mailing address: City of Detroit/ GSD
65 Cadillac Square, Suite 3200
Detroit, MI 48226
Attention: Brad Dick, Deputy Director

Please make the necessary changes in your data base and records so that all future communications are addressed to the new department.

The Annual Registration fee invoices for year 2007 for all the facilities, received by City engineering Division/DPW, will be forwarded to General Services Department for payment.

Sincerely



Kumar Sudarshan
City Engineering Div. DPW

Xc: Jessy Jacob CED/DPW
Craig Rice GSD
Brad Dick GSD
Alfred Jordan DPW

Waste & Hazardous
Materials Division

MAR 21 2007

		UNDERGROUND STORAGE TANKS				
		DEPARTMENT OF PUBLIC WORKS				
STATION/FACILITY NUMBER		CAPACITY	TANK #	CONETENTS	STATUS	REGISTRATION 2006
DEPARTMENT OF PUBLIC WORKS						
RUSSELL/FERRY, 5800 RUSSELL	00019073	30,000 Gal.	1	DIESEL	Current	Paid
		30,000 Gal.	2	DIESEL	Current	Paid
		30,000 Gal.	4	DIESEL	Current	Paid
		30,000 Gal.	7	GASOLINE	Current	Paid
		30,000 Gal.	8	DIESEL	Current	Paid
		30,000 Gal.	9	GASOLINE	Current	Paid
		30,000 Gal.	10	DIESEL	Current	Paid
		3000 Gal.	16	Four Products	Current	Paid
		2000 Gal.	17	USED OIL	Current	Paid
DAVISON YARD, 8221 W.DAVISON 00019059						
		15,000 Gal.	1	DIESEL	Current	Paid
		15,000 Gal.	2	GASOLINE	Current	Paid
SOUTHFIELD YARD 12225 Southfield Fwy 00019072						
		15,000 Gal.	2	DIESEL	Current	Paid
		10,000 Gal.	3	GASOLINE	Current	Paid
STREET MAINTENANCE, 2633 MICHIGAN 00019074						
		5,000 Gal.	1	GASOLINE	Current	Paid
		5,000 Gal.	3	DIESEL	Current	Paid
		5,000 Gal.	4	DIESEL	Current	Paid
LIVERNOS GARAGE, 2141 LIVERNOS 00019060						
		10,000 Gal.	1	DIESEL	Current	
		10,000 Gal.	2	GASOLINE	Current	
		10,000 Gal.	3	GASOLINE	Current	
						Paid
FIRE DEPARTMENT						
ENGINE Co. # 6, 3100 RUSSELL 00019088						
		UNKNOWN	2	USED OIL	tank	Paid
		2,000 Gal.	3	DIESEL	removed	Paid
ENGINE Co. # 50, 12885 HOUSTON-WHITTIER 00019120						
		2000 /2000 Gal	2	diesel/gasoline	tank	
					removed	
ENGINE Co. # 40, 13939 DEXTER 00019113						
		2,000 Gal.	1	DIESEL	tank	
					removed	
ENGINE Co. # 54, 16825 TRINITY 00019124						
		2,000 Gal.	2	DIESEL	Current	Paid
POLICE DEPARTMENT						
PRECINCT # 1, 500 CLINTON 00019130						
		5,000 Gal.	3	GASOLINE	Current	Paid
PRECINCT # 2,13630 LESURE 00019140						
		500 Gal.	2	DIESEL	tank	
					removed	
PRECINCT # 6, 11451 WARWICK 00036790						
		15,000 Gal.		GASOLINE	tank	
					removed	
PRECINCT # 7, 3300 MACK 00019135						
		10,000 Gal.	1	GASOLINE	tank	
					removed	

MAR 21 2007

PRECINCT # 8, 21400 GRAND RIVER	00019143	10,000 Gal.	1	GASOLINE	tank removed	
PRECINCT # 9, 11187 GRATIOT	00019142	10,000 Gal.		GASOLINE	tank removed	Paid
PRECINCT # 11, 5100 NEVADA	00036588	15,000 Gal.		GASOLINE	Current	Paid
PRECINCT # 12 1441 W SEVEN MILE RD	00019138	15,000 Gal	2	GASOLINE	tank removed	
HARBORMASTER, BELL ISLE	00019144	2,000 Gal.	2	GASOLINE	Current	Paid
RECREATION DEPARTMENT						
BELL ISLE SERVICE, 351 INSELRULE ROAD	00019058	4,000 Gal.	2	DIESEL	Current	Paid
ROGELL G COURSE, 18690 BERG ROAD	00019067	560 Gal.	1	GASOLINE	Current	Paid
PALMER PARK YARD, 910 MERRILPLAISANCE	00019061	2,000/2,000 Gal.	1	DIESEL/GAS	Current	Paid
CHANDLER PARK YARD, 5660 CONNER	00019064	2,000/2,000 Gal.	1	DIESEL/GAS	Current	Paid
LYNDON-MEYERS YARD, 14800 MEYERS	00019068	2,000/2,000 Gal.	1	DIESEL/GAS	tank removed	Paid
RECREATION DEPT SERVICE BLDG W.Chicago at old Outerdrive, 22000 JOY Road	00019056	2,000/2,000 Gal.	1	DIESEL/GAS	Current	Paid
GETHSEMANE CEMETERY, 10755 GRATIOT	00037156	300/ 550 Gal.	AST	DIESEL/GAS	Current	N/A
550 Gal. Gasoline tank replaced by AST						
MISCELLANEOUS STATIONS						
DETROIT ZOO, 8450 W.10 MILE ROAD	00019070	1,500 Gal.	3	GASOLINE	Current	Paid
		1,000 Gal.	4	DIESEL	Current	Paid
HERMAN KEEPER, 1151 TAYLOR	00019063	6,000 Gal.	2	GASOLINE	Current	Paid

underground storage tanks. If more than eight (8) tanks are owned at this location, please photocopy page 2 and 3, and staple continuation sheets to the form. Make a copy of the completed registration form and file with your records for future reference. If amending a notification on file, it is sufficient to complete and highlight only those areas applicable. However, page 1 must always be completed.

REGISTRATION FOR UNDERGROUND STORAGE TANKS

FACILITY NUMBER (if known)

0-019067

IMPLEMENTING AGENCY:
MICHIGAN STATE POLICE — FIRE MARSHAL DIVISION
 TYPE OF NOTIFICATION: NEW REGISTRATION AMENDED INFO.

STATE USE ONLY
 A. DATE RECEIVED _____
 B. DATE ENTERED INTO COMPUTER _____
 C. DATA ENTRY CLERK INITIALS _____

1 NO. OF TANKS AT FACILITY
 0 NO. OF CONTINUATION SHEETS ATTACHED

I. OWNERSHIP OF TANKS
 IF THIS A NEW OWNER'S ADDRESS, PLEASE CHECK
RECREATION DEPARTMENT CITY OF DETROIT
 OWNER NAME (CORPORATION/INDIVIDUAL, ETC.)
 735 RANDOLPH RM 1906
 MAILING ADDRESS
 DETROIT MI 48226
 CITY STATE ZIP
 WAYNE
 COUNTY TOWNSHIP

II. LOCATION OF TANKS
 IF INFORMATION SAME AS SECTION I, PLEASE CHECK
 FACILITY NAME OR SITE IDENTIFIER
ROGELL GOLF COURSE
 STREET ADDRESS (P.O. BOX NOT ACCEPTABLE)
 18690 BERG ROAD
 CITY STATE ZIP
 DETROIT MI 48219
 COUNTY TOWNSHIP
 WAYNE

TELEPHONE (INCLUDING AREA CODE)
 (313)-224-1109
 TAX PAYER ID OR SOCIAL SECURITY NUMBER*

TELEPHONE (INCLUDING AREA CODE)
 313-224-1137 92
 52

III. TYPE OF OWNER
 FEDERAL GOVERNMENT COMMERCIAL
 STATE GOVERNMENT PRIVATE
 LOCAL GOVERNMENT

IV. INDIAN LANDS
 TANKS ARE LOCATED ON LAND WITHIN AN INDIAN RESERVATION OR ON OTHER TRUST LANDS
 TANKS ARE OWNED BY NATIVE AMERICAN NATION, TRIBE, OR INDIVIDUAL.
 TRIBE OR NATION: _____

V. TYPE OF FACILITY
 GAS STATION LOCAL GOVERNMENT CONTRACTOR
 PETROLEUM DISTRIBUTOR STATE GOVERNMENT TRUCKING/TRANSPORT
 AIR TAXI (AIRLINE) FEDERATION-MILITARY UTILITIES
 AIRCRAFT OWNER FEDERAL-MILITARY RESIDENTIAL
 AUTO DEALERSHIP COMMERCIAL FARM
 RAILROAD INDUSTRIAL OTHER (EXPLAIN)

VI. CONTACT PERSON FOR LOCATION
 NAME: COLLEEN CHRISTIANSEN JOB TITLE: ACTING PUBLIC SERVICE SUPERINTENDENT PHONE (including area code): 313-224-1137

VII. FINANCIAL RESPONSIBILITY
 I HAVE MET THE FINANCIAL RESPONSIBILITY REQUIREMENTS AS REQUIRED IN THE UST RULES
 SELF INSURANCE GUARANTEE (CHECK ALL ITEMS BELOW THAT APPLY)
 COMMERCIAL INSURANCE SURETY BOND MUSTFA FUND
 RISK RETENTION GROUP LETTER OF CREDIT TRUST FUND
 OTHER METHOD ALLOWED (PLEASE SPECIFY)

FOR INFORMATION ABOUT MUSTFA ELIGIBILITY CALL 1-800-468-7832

VIII. CERTIFICATION
 I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS, AND THAT BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THAT THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE.

NAME AND OFFICIAL TITLE OF OWNER OR OWNERS: John G. Tatti, Sr. Assoc Forester SIGNATURE: [Signature] DATE: 5/20/92

*THIS INFORMATION IS CONFIDENTIAL. DISCLOSURE OF CONFIDENTIAL INFORMATION IS PROTECTED BY THE FEDERAL PRIVACY ACT.
 AUTHORITY: 1984 PA 423
 COMPLIANCE: Required
 PENALTIES: Any owner who knowingly fails to notify or submits false information shall be subject to a misdemeanor and/or civil penalties not to exceed \$5,000 per day for each tank for which notification is not given or for which false information is submitted.
 THERE IS A \$100.00 ANNUAL REGISTRATION FEE FOR EACH NEW TANK REGISTERED WITH THE STATE FIRE MARSHAL. MAKE CHECKS PAYABLE TO THE STATE OF MICHIGAN. CHECK OR MONEY ORDER FOR ALL NEW TANK REGISTRATIONS MUST ACCOMPANY THE REGISTRATION FORM PART B BEFORE SUCH TANKS CAN BE CONSIDERED REGISTERED.

Notification for Underground Storage Tanks

FORM APPROVED
OMB NO. 2050-0045
APPROVAL EXPIRES 6-30-88

FOR
TANKS
IN
MI

RETURN
COMPLETED
FORM
TO

Ground Water Quality Division
Department of Natural Resources
Box 30157
Lansing, MI 48909

RECEIVED
MAY 07 1986

I.D. Number

STATE USE ONLY

019067

Date Received

GOD-COMPLIANCE

GENERAL INFORMATION

Notification is required by Federal law for all underground tanks that have been used to store regulated substances since January 1, 1974, that are in the ground as of May 8, 1986, or that are brought into use after May 8, 1986. The information requested is required by Section 9002 of the Resource Conservation and Recovery Act, (RCRA), as amended.

The primary purpose of this notification program is to locate and evaluate underground tanks that store or have stored petroleum or hazardous substances. It is expected that the information you provide will be based on reasonably available records, or, in the absence of such records, your knowledge, belief, or recollection.

Who Must Notify? Section 9002 of RCRA, as amended, requires that, unless exempted, owners of underground tanks that store regulated substances must notify designated State or local agencies of the existence of their tanks. Owner means—

(a) in the case of an underground storage tank in use on November 8, 1984, or brought into use after that date, any person who owns an underground storage tank used for the storage, use, or dispensing of regulated substances, and

(b) in the case of any underground storage tank in use before November 8, 1984, but no longer in use on that date, any person who owned such tank immediately before the discontinuation of its use.

What Tanks Are Included? Underground storage tank is defined as any one or combination of tanks that (1) is used to contain an accumulation of "regulated substances," and (2) whose volume (including connected underground piping) is 10% or more beneath the ground. Some examples are underground tanks storing: 1. gasoline, used oil, or diesel fuel, and 2. industrial solvents, pesticides, herbicides or fumigants.

What Tanks Are Excluded? Tanks removed from the ground are not subject to notification. Other tanks excluded from notification are:

1. farm or residential tanks of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes;
2. tanks used for storing heating oil for consumptive use on the premises where stored;
3. septic tanks;

4. pipeline facilities (including gathering lines) regulated under the Natural Gas Pipeline Safety Act of 1968, or the Hazardous Liquid Pipeline Safety Act of 1979, or which is an intrastate pipeline facility regulated under State laws;
5. surface impoundments, pits, ponds, or lagoons;
6. storm water or waste water collection systems;
7. flow-through process tanks;
8. liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;
9. storage tanks situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

What Substances Are Covered? The notification requirements apply to underground storage tanks that contain regulated substances. This includes any substance defined as hazardous in section 101 (14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), with the exception of those substances regulated as hazardous waste under Subtitle C of RCRA. It also includes petroleum, e.g., crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

Where To Notify? Completed notification forms should be sent to the address given at the top of this page.

When To Notify? 1. Owners of underground storage tanks in use or that have been taken out of operation after January 1, 1974, but still in the ground, must notify by May 8, 1986. 2. Owners who bring underground storage tanks into use after May 8, 1986, must notify within 30 days of bringing the tanks into use.

Penalties: Any owner who knowingly fails to notify or submits false information shall be subject to a civil penalty not to exceed \$10,000 for each tank for which notification is not given or for which false information is submitted.

INSTRUCTIONS

Please type or print in ink all items except "signature" in Section V. This form must be completed for each location containing underground storage tanks. If more than 5 tanks are owned at this location, photocopy the reverse side, and staple continuation sheets to this form.

Indicate number of continuation sheets attached

I. OWNERSHIP OF TANK(S)

Owner Name (Corporation, Individual, Public Agency, or Other Entity)

CITY OF DETROIT - PARKS + REC

Street Address

C/O 3434 RUSSELL

County

WAYNE

City State ZIP Code

DETROIT MI 48207

Area Code Phone Number

313 833-1531

Type of Owner (Mark all that apply)

- Current State or Local Gov't Private or Corporate
 Former Federal Gov't (GSA facility I.D. no.) Ownership uncertain

II. LOCATION OF TANK(S)

(If same as Section I, mark box here)

Facility Name or Company Site Identifier, as applicable

ROGELL GOLF COURSE

Street Address or State Road, as applicable

18690 BERG RD

County

WAYNE

City (nearest)

DETROIT, MI.

State

ZIP Code

48219

Indicate number of tanks at this location

Mark box here if tank(s) are located on land within an Indian reservation or on other Indian trust lands

III. CONTACT PERSON AT TANK LOCATION

Name (If same as Section I, mark box here)

JAMES P. VORGITCH

Job Title

PLUMBING HEATING FOREMAN

Area Code

313

Phone Number

833 1531

IV. TYPE OF NOTIFICATION

Mark box here only if this is an amended or subsequent notification for this location.

V. CERTIFICATION (Read and sign after completing Section VI)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Name and official title of owner or owner's authorized representative

JAMES P. VORGITCH PLUMBING HEATING FOREMAN

Signature

[Signature]

Date

MAR 19 1986

CONTINUE ON REVERSE SIDE

VI. DESCRIPTION OF UNDERGROUND STORAGE TANKS (Complete for each tank at this location)

Tank Identification No. (e.g., ABC-123), or Arbitrarily Assigned Sequential Number (e.g., 1,2,3...)	Tank No.	Tank No.	Tank No.	Tank No.	Tank No.
	1				
1. Status of Tank (Mark all that apply) <ul style="list-style-type: none"> Currently in Use Temporarily Out of Use Permanently Out of Use Brought into Use after 5/8/86 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Estimated Age (Years)	31				
3. Estimated Total Capacity (Gallons)	550				
4. Material of Construction (Mark one) <ul style="list-style-type: none"> Steel Concrete Fiberglass Reinforced Plastic Unknown Other, Please Specify 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Internal Protection (Mark all that apply) <ul style="list-style-type: none"> Cathodic Protection Interior Lining (e.g., epoxy resins) None Unknown Other, Please Specify 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. External Protection (Mark all that apply) <ul style="list-style-type: none"> Cathodic Protection Painted (e.g., asphaltic) Fiberglass Reinforced Plastic Coated None Unknown Other, Please Specify 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Piping (Mark all that apply) <ul style="list-style-type: none"> Bare Steel Galvanized Steel Fiberglass Reinforced Plastic Cathodically Protected Unknown Other, Please Specify 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Substance Currently or Last Stored in Greatest Quantity by Volume (Mark all that apply) <ul style="list-style-type: none"> a. Empty b. Petroleum <ul style="list-style-type: none"> Diesel Kerosene Gasoline (including alcohol blends) Used Oil Other, Please Specify c. Hazardous Substance d. Unknown Please Indicate Name of Principal CERCLA Substance OR Chemical Abstract Service (CAS) No. Mark box <input checked="" type="checkbox"/> if tank stores a mixture of substances	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Additional Information (for tanks permanently taken out of service) <ul style="list-style-type: none"> a. Estimated date last used (mo/yr) b. Estimated quantity of substance remaining (gal.) c. Mark box <input type="checkbox"/> if tank was filled with inert material (e.g., sand, concrete) 	/	/	/	/	/



FACILITY NUMBER (see Invoice)
0-019067

INTENT OF REMOVAL, CLOSURE OR CHANGE-IN-SERVICE OF UNDERGROUND STORAGE TANKS

This information is required under the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), Part 211. Any owner/operator who fails to notify is subject to a misdemeanor and civil penalties, not to exceed \$5,000 per day for each tank.

INSTRUCTIONS: NOTICES WILL ONLY BE ACCEPTED ON THIS FORM. YOUR UST MUST BE REGISTERED PRIOR TO SUBMITTAL OF THIS FORM. Please type or print clearly. ALL information must be completed. See reverse side for additional information. If you have questions, call (517) 373-8168, Monday through Friday between 8:00 am - 5:00 pm

I. OWNERSHIP OF TANKS			II. LOCATION OF TANKS		
<input type="checkbox"/> PLEASE CHECK IF NEW OWNER'S ADDRESS			<input type="checkbox"/> PLEASE CHECK IF SAME AS SECTION I		
NAME OF OWNER (CORPORATION, INDIVIDUAL, ETC.) CITY OF DETROIT (DPW)			FACILITY NAME OR COMPANY SITE IDENTIFIER DETROIT REC DEPT. ROGELL GOLF COURSE		
STREET ADDRESS 65 CADILLAC SQ, STE 1000			STREET ADDRESS (P O Box Not Acceptable) 18690 BERG ROAD		
CITY DETROIT	STATE MI	ZIP CODE 48226	CITY DETROIT	STATE MI	ZIP CODE 48219
COUNTY CAYLARD	TOWNSHIP WAYNE	CAYLARD	COUNTY CAYLARD	TOWNSHIP WAYNE	CAYLARD
AREA CODE & TELEPHONE NUMBER '313' 224-9409			CONTACT PERSON FOR LOCATION DENISE McCLUNG		
			AREA CODE & TELEPHONE NUMBER '313' 224-9409		

TANK INFORMATION			
TANK NUMBER AS INDICATED ON UST INVOICE	PRODUCT LAST STORED IN TANK	SIZE OF TANK (GALLONS)	INDICATE ACTION TO BE TAKEN REMOVAL, CHANGE-IN-SERVICE, CLOSE IN PLACE
1	GASOLINE	550	REMOVAL & REPLACEMENT

Comments:

Notification Submitted by (Print Name) BRIAN TRENT		Company NTH CONSULTANTS, LTD.	
Signature 		Date 3/4/99	Area Code & Telephone Number '313' 965-0036

THIS IS NOT A REGISTRATION FORM. AN AMENDED REGISTRATION FORM, EQP3821, MUST BE FILED TO REMOVE THE LISTED TANKS FROM THE BILLING CYCLE

USTD USE ONLY

USTD APPROVAL NOTICE
Approval is given to perform the indicated activity at the above facility location. Action indicated above may commence on or after: **4-5-99**
Expiration Date: **10-5-99**. If action is not taken by the expiration date, you must submit another notification.

Authorizing Signature 	Date 3-5-99
Mail White and Canary Copies To: UNDERGROUND STORAGE TANK DIVISION DEPARTMENT OF ENVIRONMENTAL QUALITY P O BOX 30157 LANSING, MI 48909-7657	Date Confirmation Mailed to Owner 3-5-99
	Entry Date TLH MAR 05 1999

INSTRUCTIONS

REPORTING REQUIREMENTS

An underground storage tank (UST) subject to Part 211 of Act 451 must be registered by the current owner and have all fees paid to be considered registered with the Underground Storage Tank Division (USTD). The UST owner/operator or agent must complete this form as instructed. The copies returned by the USTD will indicate the earliest closure date along with the last date this form is valid.

A site assessment shall be conducted during the closure/change-in-service, with results sent to the USTD along with the form provided. The owner/operator must also submit an amended registration form notifying the USTD of completion of closure/change-in-service within 30 days after the date of the closure/change-in-service.

INSURANCE REQUIREMENTS

Pursuant to Section 21107 of Act 451, Part 211, a person who removes USTs shall maintain pollution liability insurance of not less than \$1,000,000 per occurrence.

CONFIRMED RELEASE

A confirmed release must be reported to the USTD within 24 hours. A confirmed release waives the requirements of submitting this form, waiting 30 days, and conducting a site assessment. Once reported, the owner/operator will be informed regarding rules for further testing and cleanup activities. Releases may be reported by fax to 517/335-2245 or called in to 1-800-MICHUST.

CLOSURE OF TANKS

Tanks shall be emptied of all liquid and accumulated sludge and purged of all vapors. Piping shall be emptied of all liquid and sludge, purged and capped, or removed from the ground. *Permanent closure* requires removal of the UST from the ground, unless it can be documented that removal of the UST would cause damage to a permanent structure. The tank can be closed-in-place after the 30 day waiting period provided that the required documentation is placed in the owner's file. If closure in place is necessary, the tank must be emptied of liquid, sludge and vapors and filled 100% with inert solid material (sand, fly-ash concrete or pea gravel). Piping shall be closed as indicated above. A site assessment is still required if tanks are closed-in-place.

CHANGE-IN-SERVICE

A change-in-service is defined as going from the storage of a regulated substance to an unregulated substance. The tank must be cleaned and purged as stated above, and a site assessment must be performed prior to the introduction of the unregulated substance.

NOTIFICATION

It is recommended that the Hazardous Materials Storage Inspector at the USTD district office be notified 7 days prior to the work being performed.

If you have questions regarding the above instructions, please contact the USTD at (517) 373-8168 or the USTD District Office.



JENNIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



STEVEN E. CHESTER
DIRECTOR

August 16, 2006

City of Detroit / DPW
65 Cadillac Sq
Suite 900
Detroit, MI 48226

Dear Owner/Operator:

SUBJECT: Nonpayment of Fee(s) for Underground Storage Tank(s)

The Department of Environmental Quality (DEQ), Waste and Hazardous Materials Division (WHMD), has not received payment for the underground storage tank(s) (UST) located at Rogell Golf Course, 18690 BERG RD, DETROIT, Michigan, Facility Number 00019067.

Pursuant to Section 21102 (8) of Part 211, Underground Storage Tank Regulations, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, "the owner of an underground storage tank system shall, upon registration or renewal of registration, pay a registration fee of \$100 for each underground storage tank included in that underground storage tank system." The fee is owed on any regulated UST that exists at the facility whether the tank is active or not.

You were invoiced for your registration fee on March 1, 2006. Your current balance of \$100.00 is now past due and must be paid immediately. Please send your check, indicating your facility ID number, made payable to the "State of Michigan," to the DEQ, Cashiers Office, P.O. Box 30657, Lansing, Michigan 48909.

If the WHMD does not receive payment within 30 days of the date of this letter, your UST(s) will be red tagged and, as such, cannot be filled. Further, you may be subject to escalated enforcement action.

Should you have reason to dispute all or part of these registration fees, you must submit and the WHMD must receive a written statement, together with all documentation in support of your position, within 21 days of the date of this letter. The information must be sent to the DEQ, WHMD, P.O. Box 30241, Lansing, Michigan 48909. If any of the following are the basis for your dispute, the identified information must be received for consideration of your dispute by the DEQ:

Change In Ownership

- Documents sufficient to demonstrate that a legal, equitable, or possessory interest of any kind in a UST system or in the property on which a UST system is located was transferred to another person. These documents should include a copy of the instrument of conveyance (e.g., trusts, land contracts, lease agreements, and recorded quit claim or warranty deeds).

- An amended Registration of Underground Storage Tanks form, Form EQP3821 (REV 04/01). As required by Rule 13, Section 280.22(a) of the Michigan Underground Storage Tank Rules, 1999 AACS R 29.2101 et seq. (MUSTR), a new owner of an existing UST system shall register the UST system with the DEQ within 30 days of ownership on the above form.

UST Removal

- An amended Registration of Underground Storage Tanks form, Form EQP 3821(REV 04/01).
- As required by Rule 53, Section 280.71(f) of the MUSTR, the owner or operator shall sign and submit to the DEQ an amended registration form within 30 days of permanent closure or, in place of an amended registration form, a site assessment form, signed by the owner, within 45 days of permanent closure.
- As required by subsection 21102(10) of Part 211, the owner of a UST system is responsible to pay registration fees on USTs that have been closed or removed until notification of the closure or removal is provided to the DEQ.

If you have additional questions concerning this matter, please contact me.

Sincerely,



Ronald J. Horvath, Departmental Analyst
Storage Tank Unit
Storage Tank and Solid Waste Section
Waste and Hazardous Materials Division
517-373-6247

cc: Facility File



JOHN ENGLER, Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

"Better Service for a Better Environment"

HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973

INTERNET. www.deq.state.mi.us

RUSSELL J. HARDING, Director

REPLY TO:

STORAGE TANK DIVISION
TOWN CENTER
PO BOX 30157
LANSING MI 48909-7657

January 20, 2000

CERTIFIED MAILCITY OF DETROIT/DPW
65 CADILLAC SW
SUITE 1000
DETROIT, MI 48226

Dear UST Owner/Operator:

SUBJECT: Red-Tagged Underground Storage Tank Systems (USTs)
ROGELL GOLF COURSE, 18690 BERG RD, DETROIT, MI, 48219
Facility ID 0-019067

The Michigan Department of Environmental Quality, Storage Tank Division (STD), previously notified you on numerous occasions, including a letter dated November 16, 1998, at the time of red-tagging your USTs, and again by letter dated August 11, 1999, that your USTs are not in compliance with the December 22, 1998 upgrade requirements. Furthermore, you were noticed that all substandard USTs were classified by the STD as temporarily closed effective December 22, 1998. Therefore, owners or operators (O/O) of these substandard tanks are obligated by law to upgrade to meet the new standards, or replace and permanently close the substandard USTs, in accordance with the Michigan Underground Storage Tank Rules (MUSTR), 1999 AACS R 29.101 et seq, no later than December 22, 1999.

The STD has not received any information to indicate that you have either replaced, upgraded, or permanently closed (removed) your substandard tanks in accordance with the MUSTR by the December 22, 1999 deadline. As such, you are in violation of the MUSTR and subject to misdemeanor prosecution and if convicted, punishable by imprisonment for not more than six months or a fine of not more than \$500 or both. The STD may also pursue civil actions including injunctive relief and fines of up to \$5,000 per day for each day of violation. In addition, the STD may seek appropriation of state funds to undertake actions necessary to protect the public health and the environment, including the removal and disposal of substandard tanks, which would be subject to cost recovery actions from owners and operators.

You are hereby ordered to immediately remove all substandard USTs. You are also advised that you must submit the enclosed removal notice form to the STD prior to the removal of the USTs. In addition, you must provide notice to the Hazardous Materials Storage Inspector, at your local STD District office (also enclosed), 48-hours prior to the UST removal. Each day that you have not removed the substandard USTs constitutes a new violation.

If our information is incorrect, and you have removed or upgraded your substandard USTs, please contact Mr. Kevin Wieber at 517-335-7260.

Roger Przysbyz, Chief
Storage Tank Division
517-373-8168

Enclosures

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

0019067 CITY OF DETROIT/DPW
 65 CADILLAC SW
 DETROIT MI 48226

2. Article Number (Copy from service label)

2375956763

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly)

B. Date of Delivery

1/21/00

C. Signature

Thelma Benberg Agent
 Addressee

D. Is delivery address different from item 1?

Yes
 No

If YES, enter delivery address below:

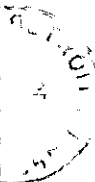
3. Service Type

- Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee)

Yes

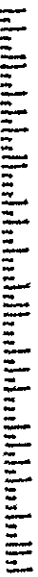
UNITED STATES POSTAL SERVICE



First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

DEQ-STD-P. HICKEY
P.O. BOX 30157
LANSING MI 48909-7657



19067
Z 375 956 763

US Postal Service

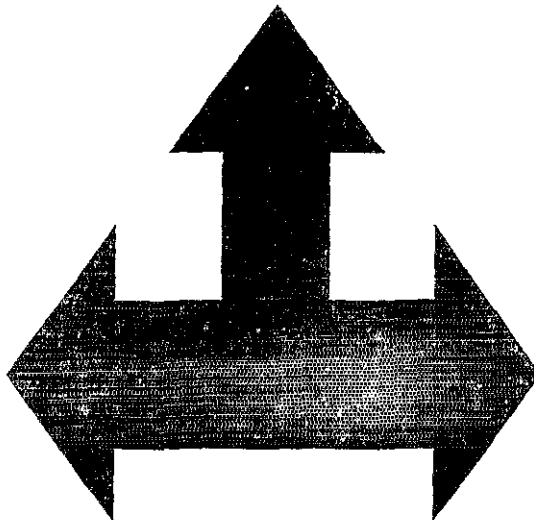
Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to	
Street & Number	
Post Office, State, & ZIP Code	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	

PS Form 3800, April 1995



0-019067

DES MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
UNDERGROUND STORAGE TANK DIVISION
Upgrade per B. Trent Lab Results 5/6/99

RELEASE REPORT: SUSPECTED CONFIRMED

THIS INFORMATION IS REQUIRED UNDER 11521A 451, AS AMENDED (451 451). FAILURE TO COMPLY WITH THE PROVISIONS OF THIS ACT MAY RESULT IN A MISDEMEANOR AND/OR CIVIL PENALTIES NOT TO EXCEED \$2000 PER DAY, PER TANK.

USTD USE ONLY

UPGRADE/CANCEL DATE 5-18-99	INCIDENT NUMBER S-387-99
ENTRY DATE TLH APR 29 1999	C-387-99

INSTRUCTIONS: The owner, operator, or consultant must report suspected and confirmed release reports to the Underground Storage Tank Division (USTD) within 24 hours of discovery. Phone 1-800-MICHUST or FAX this form to 517-335-2245. All information on this form must be provided regardless of whether the release is reported by telephone or FAX. If you have any questions, please contact the USTD at 517-373-8168.

PERSON REPORTING RELEASE BRIAN TRENT		COMPANY (IF NOT OWNER/OPERATOR) NTH CONSULTANTS Ltd.		AREA CODE & TELEPHONE NUMBER (313) 965-0036	
I. OWNERSHIP OF TANKS			II. LOCATION OF TANKS		
<input checked="" type="checkbox"/> PLEASE CHECK IF NEW ADDRESS			<input type="checkbox"/> PLEASE CHECK IF SAME AS SECTION I		
NAME OF OWNER (CORPORATION/INDIVIDUAL, ETC.) CITY OF DETROIT (DPW)			FACILITY NAME OR COMPANY SITE IDENTIFIER DETROIT REG. DEPT Rogell Golf Course		
STREET ADDRESS 65 CADILLAC SQ., STE. 1000			STREET ADDRESS (P O Box Not Acceptable) 18601 BERG RD.		
CITY DETROIT MI, 48226			CITY CODE DETROIT	STATE MI	ZIP 48219
CITY STATE ZIP CODE			COUNTY WAYNE	TOWNSHIP	
AREA CODE & TELEPHONE NUMBER (313) 224-9409			CONTACT PERSON FOR LOCATION NUMBER DENISE McCUNE	AREA CODE & TELEPHONE (313) 224-9409	
DATE RELEASE DISCOVERED: 4/27/99			TIME RELEASE DISCOVERED: AFTERNOON		
SIZE OF TANK (Gallons)	SUBSTANCE RELEASED	CONSTRUCTION OF TANK	REASON FOR BELIEVING RELEASE OCCURRED (e.g. presence of product, failed tightness test, vapors, stains)		
550	Gasoline	Steel	Hole in tank, though no product or odors were observed.		

COMMENTS:

USTD USE ONLY

DATE/TIME REPORTED **4-28-99 17:21** AM PM PHONE FAX VOICE MAIL

DISTRIBUTION ORIGINAL: USTD, FACILITY FILE COPY: OWNER USTD SIGNATURE *[Signature]*

FACILITY NUMBER (SEE INVOICE)

0-019067

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
GROUNDWATER STORAGE TANK DIVISION

USTD USE ONLY

RELEASE NUMBER

NO. TEST TUBES

ENTRY DATE

RELEASE REPORT. SUSPECTED UNCONFIRMED

THIS INFORMATION IS TO BE REPORTED TO THE USTD WITHIN 24 HOURS OF DISCOVERY. ALL INFORMATION ON THIS FORM MUST BE PROVIDED REGARDLESS OF WHETHER THE RELEASE IS REPORTED BY TELEPHONE OR FAX. IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT THE USTD AT 517-335-2349.

INSTRUCTIONS: The owner, operator, or consultant must report suspected and confirmed release reports to the Underground Storage Tank Division (USTD) within 24 hours of discovery. Phone 1-800-486-6111 or FAX this form to 517-335-2349. All information on this form must be provided regardless of whether the release is reported by telephone or FAX. If you have any questions, please contact the USTD at 517-335-2349.

PARTY REPORTING RELEASE		CONTACT INFORMATION	USTD USE ONLY (FACILITY NUMBER)
DRAIN TREAT		MTM COMPANY INC	3139650683
I. LOCATION OF TANK		II. LOCATION OF TANK	
TANK NUMBER		TANK SECTION	
TANK TYPE		TANK STATUS	
TANK CAPACITY		TANK VOLUME	
TANK DATE		TANK DATE	
TANK OPERATOR		TANK OPERATOR	
TANK ADDRESS		TANK ADDRESS	
TANK CITY		TANK CITY	
TANK STATE		TANK STATE	
TANK ZIP		TANK ZIP	
TANK COUNTY		TANK COUNTY	
TANK TOWNSHIP		TANK TOWNSHIP	
TANK PARCEL		TANK PARCEL	
TANK SURVEY		TANK SURVEY	
TANK DEED		TANK DEED	
TANK EASEMENT		TANK EASEMENT	
TANK OTHER		TANK OTHER	

USTD USE ONLY

DATE REPORTED	REPORTED BY	USTD, FACILITY FILE COPY: OWNER	USTD SIGNATURE

DEQ MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
UNDERGROUND STORAGE TANK DIVISION

FACILITY NUMBER (see invoice) 0-019067
--

USTD USE ONLY	
UPGRADE/CANCEL DATE	INCIDENT NUMBER
ENTRY DATE	

RELEASE REPORT: SUSPECTED CONFIRMED

THIS INFORMATION IS REQUIRED UNDER 1994 PA 451, AS AMENDED (Act 461). FAILURE TO COMPLY WITH THE PROVISIONS OF THIS ACT MAY RESULT IN A MISDEMEANOR AND/OR CIVIL PENALTIES NOT TO EXCEED \$5000 PER DAY, PER TANK.

INSTRUCTIONS: The owner, operator, or consultant must report suspected and confirmed release reports to the Underground Storage Tank Division (USTD) within 24 hours of discovery. Phone 1-800-MICHUST or FAX this form to 517-335-2245. All information on this form must be provided regardless of whether the release is reported by telephone or FAX. If you have any questions, please contact the USTD at 517-373-8168.

PERSON REPORTING RELEASE BRIAN TRENT		COMPANY (IF NOT OWNER/OPERATOR) NTH CONSULTANTS, LTD.		AREA CODE & TELEPHONE NUMBER (313) 965-0036	
I. OWNERSHIP OF TANKS			II. LOCATION OF TANKS		
<input type="checkbox"/> PLEASE CHECK IF NEW ADDRESS			<input type="checkbox"/> PLEASE CHECK IF SAME AS SECTION I		
NAME OF OWNER (CORPORATION/INDIVIDUAL, ETC.) CITY OF DETROIT			FACILITY NAME OR COMPANY SITE IDENTIFIER DETROIT REG. DEPT. Rogell Golf Course		
STREET ADDRESS 65 CADILLAC SQ., STE. 1000			STREET ADDRESS (P O Box Not Acceptable) 18601 Berg Rd.		
CITY DETROIT		STATE MI	CITY CODE DETROIT	STATE MI	ZIP 48219
CITY		STATE	ZIP CODE	COUNTY WAYNE	TOWNSHIP
AREA CODE & TELEPHONE NUMBER (313) 224-9409			CONTACT PERSON FOR LOCATION NUMBER DENISE McClung		AREA CODE & TELEPHONE (313) 224-9409
DATE RELEASE DISCOVERED: 5/6/99			TIME RELEASE DISCOVERED: 9:00 am		
SIZE OF TANK (Gallons)	SUBSTANCE RELEASED	CONSTRUCTION OF TANK	REASON FOR BELIEVING RELEASE OCCURRED (e.g. presence of product, failed tightness test, vapors, stains)		
550	GASOLINE	STEEL	LABORATORY Results indicate very low BTEX.		
COMMENTS:					

USTD USE ONLY	
DATE/TIME REPORTED	<input type="checkbox"/> AM <input type="checkbox"/> PM <input type="checkbox"/> PHONE <input type="checkbox"/> FAX <input type="checkbox"/> VOICE MAIL
DISTRIBUTION ORIGINAL: USTD, FACILITY FILE COPY: OWNER	USTD SIGNATURE



JOHN ENGLER, Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

"Better Service for a Better Environment"

HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973

INTERNET: www.deq.state.mi.us

RUSSELL J. HARDING, Director

REPLY TO

STORAGE TANK DIVISION
TOWN CENTER
PO BOX 30157
LANSING MI 48909-7657

May 10, 1999

CERTIFIED MAIL

Dear Owner/Operator:

SUBJECT:

Facility ID No. 0-019067, Confirmed Release No. C-387-99
ROGELL GOLF COURSE, 18690 BERG RD, DETROIT, MI

On 05-06-99, the Department of Environmental Quality (DEQ), Storage Tank Division (STD), was notified of a release of a regulated substance from an underground storage tank (UST) system at the above location. Attached is a copy of the confirmed release report. As the owner or operator of this facility with a reported release, you are responsible for hiring a qualified underground storage tank consultant to conduct all appropriate corrective actions at this location, including submission of reports by the deadlines set forth in Part 213, Leaking Underground Storage Tanks, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. If you do not agree that you are responsible for conducting corrective actions at this facility, you may submit supporting documentation to the STD DETROIT OFFICE within 30 days from receipt of this letter that demonstrates that you were not responsible for the release. Attached is informational memo IM-8, revised January 8, 1997, which provides general information on liability.

Please refer to Part 213 and the attached flow chart to help guide you through the requirements. STD approval is needed for any institutional controls that are a part of the cleanup program. The STD may audit or oversee all aspects of corrective actions undertaken pursuant to Part 213. You are required to contact our district office at least 48 hours prior to conducting on-site activities, using the attached form.

The STD requires the use of forms to assist in the reporting requirements. The required forms are available from the district office. A LUST report cover sheet should be submitted with each report. In addition, you are required to notify the STD of any changes to your UST system using a registration form.

Be advised that pursuant to Section 21313a and 21323 of Part 213, the owner or operator may be subject to penalties for not preparing and submitting the reports outlined in Part 213. In addition Section 21324 of Part 213 provides that a person who submits or causes to be submitted false or misleading information may be found guilty of fraud.

Please include the Facility ID No. found under "Subject" at the top of this notification with each submittal and on any future correspondence. Should you have questions regarding this letter, or need additional information, please contact the STD DETROIT OFFICE at (313) 392-6480.

Sincerely,

Terri Harmon
Storage Tank Division

Enclosures

cc: DETROIT OFFICE

is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. Addressee's Address
2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

DENISE MCLUNG
CITY OF DETROIT (DPW)
65 CADILLAC SQ, STE 1000
DETROIT MI 48226

4a. Article Number

19067

EOB7136472

4b. Service Type

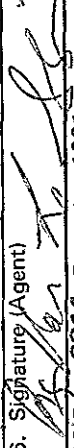
- Registered
- Certified
- Express Mail
- Insured
- COD
- Return Receipt for Merchandise

7. Date of Delivery

5/13/99

5. Signature (Addressee)

6. Signature (Agent)



8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1991 *U.S. GPO: 1993-352-714

DOMESTIC RETURN RECEIPT

UNITED STATES POSTAL SERVICE

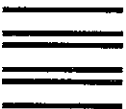
Official Business

RECEIVED

SEP 17 11 01 AM

MAIL DIVISION

DEQ STD T. HARMON
PO BOX 30157
LANSING MI 48909



PENALTY FOR PRIVATE
USE TO AVOID PAYMENT
OF POSTAGE, \$300



Z 067 136 472

US Postal Service

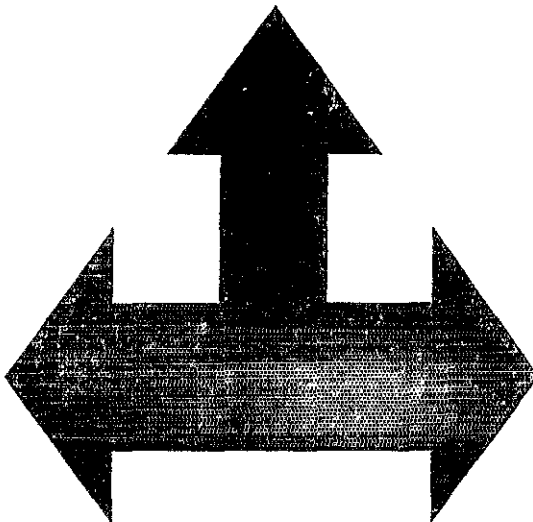
Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to	
Street & Number	
Post Office, State, & ZIP Code	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	

PS Form 3800, April 1995





STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTE AND HAZARDOUS MATERIALS DIVISION

FACILITY INSPECTION REPORT

Owner Name & Address:

Greater Grace Temple
23500 West 7 Mile Rd
Detroit, MI 48219

Location of Tanks:

Rogell Golf Course
18690 Berg Rd
Detroit, MI 48219
County - Wayne
Facility ID - 00019067

KLW DEC 11 2007

ATTENTION: Greater Grace Temple

An Existing Facility Inspection was conducted on November 28, 2007, for the above-referenced facility for compliance with Part 211, Underground Storage Tank Regulations, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the Michigan Underground Storage Tank Rules (MUSTR), 1999 ACS R 29.2101 et seq.; and the applicable sections of the rules for the Storage and Handling of Flammable and Combustible Liquids, 2003 ACS R 29.5101 et seq. The inspection showed that there was no action taken by the inspector.

This Facility is in the process of removing all UST's from the property. The tank(s) are out of the ground and all correspondence has been submitted to "Lansing".

Note: Point of contact is Wanetta Bass.

If you have additional questions concerning this matter, please contact me.

CHRISTOPHER C. CONKLIN
Hazardous Materials Storage Inspector
SE Michigan District Office
27700 Donald Court
Warren, MI 48092-2793
Phone: 586-753-3836
Fax: (586) 753-3831
Email: conklinc2@michigan.gov

11/28/07

Date

PHASE II ENVIRONMENTAL SITE ASSESSMENT
APPROXIMATE 120-ACRE PARCEL
EXISTING ROGELL GOLF COURSE
18601 BERG ROAD
DETROIT, WAYNE COUNTY, MICHIGAN

GREATER GRACE TEMPLE
23500 WEST SEVEN MILE ROAD
DETROIT, MICHIGAN 48219

BY
McDOWELL & ASSOCIATES
21355 HATCHER AVENUE
FERNDALE, MICHIGAN 48220
Phone: (248) 399-2066
Fax: (248) 399-2157
www.mcdowasc.com

MAY 21, 1007

RECEIVED
MAY 25 2007
CITY OF DETROIT
DEPARTMENT OF
ENVIRONMENTAL AFFAIRS

McDowell & Associates

Geotechnical, Environmental & Hydrogeological Services • Materials Testing & Inspection

21355 Hatcher Avenue • Ferndale, MI 48220
Phone: (248) 399-2066 • Fax: (248) 399-2157

May 21, 2007

Greater Grace Temple
23500 West Seven Mile Road
Detroit, Michigan 48219

Job No. 07-14031

Attention: Mr. Martin Hardy

Subject: Phase II Environmental Site Assessment
Approximate 120-Acre Parcel
Existing Rogell Golf Course
18601 Berg Road
Detroit, Wayne County, Michigan

Dear Mr. Hardy:

Pursuant to your request, McDowell & Associates has completed a Phase II Environmental Site Assessment (ESA) for the subject property. A Site Location Map, which shows the approximate location of the subject property, accompanies this report as Attachment I.

As part of this assessment, a total of 31 soil borings were made on the subject property. Eleven soil samples and eight groundwater samples were obtained and submitted for analytical chemistry testing.

Results of chemistry testing show total chromium, acenaphthene, fluorene, phenanthrene, n-butylbenzene, ethylbenzene, 2-methylnaphthalene, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and xylenes were detected in three of the soil samples at concentrations above MDEQ Generic Residential Drinking Water and Groundwater/Surface Water Interface (GSI) Groundwater Protection Criteria.

Ethylbenzene, fluorene, phenanthrene, and 1,2,4-trimethylbenzene were detected in two of the groundwater samples at concentrations above MDEQ Generic GSI Criteria.

Soil and groundwater with contaminants above MDEQ Generic Residential Criteria were detected in the vicinity of a heating oil UST by the clubhouse and by drums and diesel ASTs by the cart storage building. It is suggested that the drums, AST, and UST, and their contents, be removed from subject property in accordance with State of Michigan guidelines.

Based on chemical test results, remedial activities would be required to achieve MDEQ Criteria for unrestricted residential use.

This assessment was completed for the exclusive use of Greater Grace Temple, and they may rely on its contents.

The results of our investigation are presented below.

Mid-Michigan Office

3730 James Savage Road • Midland, MI 48642
Phone: (989) 496-3610 • Fax: (989) 496-3190

Background

McDowell & Associates completed a Phase I Environmental Site Assessment (ESA) for the subject property on April 20, 2007 (McDowell & Associates' Job Number 07-14025). That report identified several recognized environmental conditions (RECs) in connection with the subject property, which are summarized below.

- Registered 550-gallon gasoline UST.
- 2,000-Gallon fuel oil UST.
- Potential historic abandoned USTs.
- Diesel ASTs.
- 55-Gallon waste oil drums.
- Herbicide storage.
- Heating oil AST.
- Concentrated debris, stockpiled soil, and soil disturbances.
- Adjoining sites of interest.

The scope of work for this Phase II Environmental Site Assessment was developed to address the recognized environmental conditions (RECs) identified in McDowell & Associates' Phase I ESA.

Field Work

On April 19, 2007, McDowell & Associates completed a Magnetometry Survey on a grid pattern in the vicinity of the clubhouse, the suspect pipe, and the cart storage building. High magnetic gradients were identified at the locations of the two known USTs. No evidence of a UST was identified near the suspect pipe by the caddy building.

Results of the magnetometry survey identified a few areas of low and high magnetic gradient in the vicinity of the cart storage building, and are shown on the accompanying Attachment II. Soil borings were completed in those areas, and no evidence of abandoned USTs was encountered.

On May 3, 2007 and May 4, 2007, McDowell & Associates completed 31 soil borings, designated 1 through 31, on the subject property. A Soil Boring Location Map, which shows the approximate locations in which soil borings were made, accompanies this report as Attachment III.

Subsurface conditions generally consisted of topsoil underlain by brown silty fine sand and silt, followed by blue silty clay. Groundwater was noted at depths ranging between 1'0" and 6'5" below ground surface (bgs). Subsurface conditions encountered at soil boring locations are shown on the Log of Soil Boring Sheets, which accompany this report as Attachment IV.

Soil Sample SS-1 was obtained from soil beneath the heating oil AST at the pump house.

Temporary monitoring wells were installed in Soil Borings 1, 2, 9, 10, 15, 19, 23, and 31 to obtain groundwater samples. Groundwater samples were obtained from Borings 1 and 2 using a disposable bailer and from Borings 9, 10, 15, 19, 23, and 31 using a peristaltic pump and low-

flow methods. Groundwater samples were designated with a "W." Well pipes were pulled at completion.

Soil boring spoils were screened with a MiniRAE 2000 photoionization detector (PID) to estimate the presence of volatile organic compound (VOC) vapors. VOC vapors were detected in Soil Borings 3, 6, 7, 10, 11, 15, 16, and 17 at concentrations up to 40. PID readings are shown in parts per million (ppm, calibrated to isobutylene gas) on the accompanying Log of Soil Boring Sheets.

The following table summarizes soil boring depths, locations, and maximum PID readings.

Soil Boring ID	Total Depth	Purpose	Max PID Reading, ppm	Depth of Max PID Reading
1*	6'6"	Adjoining Sites	None	NA
2*	3'6"	Adjoining Sites	None	NA
3*	1'6"	Heating Oil AST	1	0'- 1'
4*	1'3"	Herbicide Storage	None	NA
5*	1'3"	Herbicide Storage	None	NA
6*	1'0"	Waste Oil Drums	25	0'- 1'
7*	6'6"	Heating Oil UST	5	5'0"- 6'6"
8	14'0"	Heating Oil UST	None	NA
9	14'0"	Heating Oil UST	None	NA
10	14'0"	Heating Oil UST	10	5'6"- 11'0"
11*	6'6"	Heating Oil UST	5	5'0"- 6'6"
12	14'0"	Heating Oil UST	None	NA
13	14'0"	Heating Oil UST	None	NA
14	10'0"	Diesel ASTs	None	NA
15	14'0"	Diesel ASTs	40	0"- 2'0"
16	10'0"	Diesel ASTs	5	3'0"- 5'0"
17	14'0"	Diesel ASTs	5	0"- 2'0"
18	14'0"	Diesel ASTs	None	NA
19	9'6"	Gasoline UST	None	NA
20	14'0"	Gasoline UST	None	NA
21	14'0"	Gasoline UST	None	NA
22	14'0"	High Magnetic Gradient	None	NA
23	12'0"	Soil Disturbances	None	NA
24	14'0"	Soil Disturbances	None	NA
25	14'0"	Adjoining Sites	None	NA
26	7'0"	Soil Disturbances	None	NA
27	9'0"	Adjoining Sites	None	NA
28	10'0"	Adjoining Sites	None	NA
29	9'0"	Adjoining Sites	None	NA
30	9'0"	Adjoining Sites	None	NA
31	9'0"	Adjoining Sites	None	NA

*Denotes hand auger boring.

The approximate depths from which soil samples were obtained are shown on the Log of Soil Boring Sheets and summarized in the following section. Soil sample locations were based on sample appearance, PID reading, and estimated potential for contamination.

Samples obtained as part of this assessment were placed in labeled, pre-cleaned jars and stored in an ice-chest until delivery to a representative of Brighton Analytical, LLC of Brighton, Michigan for chemical testing. Soil samples obtained for VOC analysis were preserved in accordance with EPA Method 5035A. Groundwater samples were preserved in accordance with standard sampling protocols. Sample chain-of-custody documentation accompanies this report with chemical test results.

Chemical Testing Program

Soil and groundwater samples were subjected to tests to determine the presence of the following:

Sample ID	Depth	Purpose	Testing Program
1W	1'0" - 6'0"	Adjoining Sites of Interest	VOC
2W	0' - 3'6"	Adjoining Sites of Interest	VOC
3	0" - 6"	Heating Oil AST-Pump House	BTEX/TMB, PNA
4	0" - 6"	Herbicide Storage	Herbicides
5	0" - 6"	Herbicide Storage	Herbicides
6*	0" - 6"	Waste Oil Drums	VOC, PNA, PCB, Cd, Cr, Pb
7	4' - 5'	Heating Oil UST	BTEX/TMB, PNA
8	9' - 10'	Heating Oil UST	BTEX/TMB, PNA
9W	3'6" - 8'6"	Heating Oil UST	BTEX/TMB, PNA
10W	5'0" - 10'0"	Heating Oil UST	BTEX/TMB, PNA
11	5'6" - 6'6"	Heating Oil UST	BTEX/TMB, PNA
15a	1' - 2'	Diesel ASTs	VOC, PNA, PCB
15b	13' - 14'	Diesel ASTs	VOC, PNA
15W*	4'6" - 9'6"	Diesel ASTs	VOC, PNA
17	0' - 1'	Diesel ASTs	VOC, PNA, PCB
19W	3'6" - 8'6"	Gasoline UST	BTEX/TMB, PNA
23W	5'0" - 10'0"	Diesel ASTs and Drums	BTEX/TMB, PNA
31W	4'0" - 9'0"	Adjoining Sites of Interest	VOC
SS-1	0" - 6"	Heating Oil AST-Pump House	BTEX/TMB, PNA

**As required by MDEQ RRD Operational Memorandum No. 2: Sampling and Analyses, duplicate samples were obtained at these locations.*

VOC- volatile organic compounds (Method 8260B)
BTEX/TMB- benzene, toluene, ethylbenzene, xylenes, isopropylbenzene, n-propylbenzene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene (Methods 8021-soil, 602-water)
PNA-polynuclear aromatic hydrocarbons (Methods 8270C-soil, 625-water)
PCB- polychlorinated biphenyls (Method 8082)
Herbicides (Method 8151)
Pb- lead (Method 6020)
Cd- cadmium (Method 6020)
Cr- chromium (Method 6020)

Chemical Test Results

The accompanying Tables 1 through 4 summarize chemical test results in comparison to current MDEQ Generic Residential Criteria.

Adjoining Sites of Interest

No VOCs were detected in 1W, 2W, or 31W.

Heating Oil AST

PNAs were detected in Soil Sample 3, but at concentrations below MDEQ Generic Residential Criteria. No BTEX/TMB were detected in Soil Sample 3.

No PNAs or BTEX/TMB were detected in SS-1.

Herbicide Storage

No herbicides were detected in Soil Samples 4 or 5.

Waste Oil Drums and Diesel ASTs

Cadmium, total chromium, and total lead were detected in Soil Sample 6, but at concentrations below MDEQ Statewide Default Background Levels and MDEQ Generic Residential Criteria.

No PCBs were detected in Soil Samples 6 or 15a.

No PNAs were detected in Soil Samples 6 or 15b.

No VOCs were detected Soil Sample 15b.

n-Butylbenzene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene were detected in Soil Sample 6, but at concentrations below MDEQ Generic Residential Criteria.

Acenaphthene, n-butylbenzene, fluorene, 2-methylnaphthalene, naphthalene, phenanthrene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and xylenes were detected in Soil Sample 15a at concentrations above MDEQ Generic Residential Drinking Water and/or Groundwater Surface Water Interface (GSI) Groundwater Protection Criteria. Anthracene and pyrene were detected in that sample, but at concentrations below MDEQ Generic Residential Criteria.

Naphthalene was detected in Soil Sample 17 at a concentration above the MDEQ Generic Residential GSI Groundwater Protection Criterion. 2-Methylnaphthalene and phenanthrene were detected in that sample, but at concentrations below MDEQ Generic Residential Criteria.

1,2,4-Trimethylbenzene was detected in 15W at a concentration above the MDEQ Generic GSI Criterion. 2-Methylnaphthalene was also detected in that sample, but at a concentration below MDEQ Generic Residential Criteria.

No VOCs or PNAs were detected in 23W.

Gasoline UST

No BTEX/MTB or PNAs were detected in 19W.

Heating Oil UST

No PNAs or BTEX/TMB were detected in Soil Samples 7 and 8.

Ethylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and xylenes were detected in Soil Sample 11 at concentrations above MDEQ Generic Residential Drinking Water and/or GSI Groundwater Protection Criteria. Acenaphthene, anthracene, fluorene, isopropylbenzene, 2-methylnaphthalene, n-propylbenzene, phenanthrene, and pyrene were also detected in that sample, but at concentrations below MDEQ Generic Residential Criteria.

Ethylbenzene, 2-methylnaphthalene, phenanthrene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene were detected in 9W, but at concentrations below MDEQ Generic Residential Criteria.

Ethylbenzene, fluorene, phenanthrene, and 1,2,4-trimethylbenzene were detected in 10W at concentrations above MDEQ Generic GSI Criteria. Acenaphthene was also detected in that sample, but at a concentration below MDEQ Generic Residential Criteria.

Individual chemical test results accompany this report as Attachment V.

Quality Assurance/ Quality Control

In general accordance with the MDEQ RRD Operational Memorandum No. 2: Sampling and Analyses, two duplicate soil samples, two methanol preservation field blank sample, two field blanks, and one trip blank were obtained and submitted for analytical chemistry testing.

Results of the duplicate soil samples were similar to the corresponding soil samples. Results of the field blank samples and trip blank sample show no VOCs were detected.

Chemical test results for the quality assurance/ quality control samples are included with Attachment V.

Limitations

No environmental assessment can eliminate uncertainty regarding the potential for recognized environmental conditions or the presence of contaminants in connection with a property. This environmental assessment is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with the property within reasonable limits of time and cost. The conclusions represent our professional opinion based upon information obtained during assessment procedures and may not represent those that would be made under other conditions.

Nothing in this report constitutes a legal opinion or legal advice. It is suggested that environmental counsel be retained to evaluate site conditions and transaction-related issues from a legal perspective.

Property lines shown on maps are estimates and are limited by scale inaccuracies. The approximate boundaries shown on report attachments are not intended to be exact, but rather approximations to assist with review.

Geophysical survey techniques are useful for identifying areas of interest, particularly in connection with buried debris. Geophysical measurements and values are all relative. An absolute value cannot typically be assigned to specific conditions at all sites (i.e. buried drums or USTs). Instruments are sensitive to conditions such as relative depth to groundwater, the presence of surface and subsurface debris, orientation of subsurface metallic debris, and subsurface lithology.

Conclusions

Pursuant to your request, McDowell & Associates has completed a Phase II Environmental Site Assessment (ESA) for the subject property. As part of this assessment, a total of 31 soil borings were made on the subject property. Eleven soil samples and eight groundwater samples were obtained and submitted for analytical chemistry testing.

Results of chemistry testing show total chromium, acenaphthene, fluorene, phenanthrene, n-butylbenzene, ethylbenzene, 2-methylnaphthalene, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and xylenes were detected in three of the soil samples at concentrations above MDEQ Generic Residential Drinking Water and Groundwater/Surface Water Interface (GSI) Groundwater Protection Criteria.

Ethylbenzene, fluorene, phenanthrene, and 1,2,4-trimethylbenzene were detected in two of the groundwater samples at concentrations above MDEQ Generic GSI Criteria.

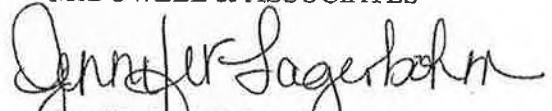
Soil and groundwater with contaminants above MDEQ Generic Residential Criteria were detected in the vicinity of a heating oil UST by the clubhouse and by drums and diesel ASTs by the cart storage building. It is suggested that the drums, AST, and UST, and their contents, be removed from subject property in accordance with State of Michigan guidelines.

Based on chemical test results, remedial activities would be required to achieve MDEQ Criteria for unrestricted residential use.

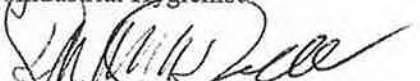
If you have any questions or if we can be of further service, please do not hesitate to call.

Very truly yours,

McDOWELL & ASSOCIATES



Jennifer Lagerbohm, M.S.
Industrial Hygienist



Douglas M. McDowell, M.S., P.E.
Environmental Manager

Attachments

- Table 1: Summary of Metals Chemistry Results (Soil)
- Table 2: Summary of PNAs Chemistry Results (Soil)
- Table 3: Summary of Volatile Organic Chemistry Results (Soil)
- Table 4: Summary of Organics Chemistry Results (Water)

- Attachment I- Site Location Map
- Attachment II- Magnetic Gradient Maps
- Attachment III- Soil Boring Location Maps
- Attachment IV- Log of Soil Boring Sheets
- Attachment V- Chemical Test Results with Chain-of-Custody Documentation

Table 1

Summary of Metals Chemistry Results (Soil)

TABLE 1 - SUMMARY OF METALS CHEMISTRY RESULTS (Soil)

Sample	Date	Description	Cadmium 7440439	Chromium 18540299	Total Lead 7439921
6	5/3/2007	0"- 6"	0.23	5.6	4.0
6-Dup	5/3/2007	Duplicate	0.38	160	34
MDEQ Generic Statewide					
Default Background Levels					
			1.2	18	21
MDEQ Generic Residential					
Direct Contact Criteria					
			550	2,500	400
MDEQ Generic Residential Ambient					
Air Inhalation Criteria					
			1,700	260	NA
MDEQ Generic Residential					
Groundwater Protection Criteria					
			6/3(7)/230,000	30/3.3/140,000	700/2,500(7)/ID

NOTES:

- All values expressed in mg/kg
- MDEQ Residential Generic Statewide Default Background, Direct Contact, Ambient Air Inhalation, and Groundwater Protection Criteria from Part 201 Generic Cleanup Criteria and Screening Levels "Soil: Residential and Commercial I" dated January 23, 2006.
- Most rigorous of Ambient Air Criteria presented. In Metals, most rigorous criteria are Particulate Soil Inhalation Criteria.
- Groundwater Protection Criteria presented as DW, GSI, and GCC.
- Chemical Abstract Service (CAS) Numbers are presented below chemicals as provided by the MDEQ.
- "ID" = MDEQ indicates inadequate data to develop criterion.
- MDEQ indicates that some chemical-specific GSI criteria are based upon the hardness of the receiving waters, and for the purpose of evaluating the potential need for remedial activities, the MDEQ allows an estimated hardness value of 150 mg/L to be used. Final determination of compliance with criteria must be based on site specific hardness.
- Boldface values exceed MDEQ Generic Statewide Default Background Levels.
- Values shown thus exceed MDEQ Generic Residential Groundwater Protection Criteria.

Table 2

Summary of PNAs Chemistry Results (Soil)

TABLE 2 - SUMMARY OF PNAs CHEMISTRY RESULTS (Soil)

Sample	Date	Depth	Acenaphthene 8332a	Anthracene 120127	Benzo(a)anthracene 56553	Benzo(a)pyrene 50328	Benzo(b)fluoranthene 205992
3	5/3/2007	0'- 6"	<330	<330	530	480	400
6	5/3/2007	0'- 6"	<330	<330	<330	<330	<330
6-Dup	5/3/2007	Duplicate	<330	<330	<330	<330	<330
7	5/4/2007	4'- 5'	<330	<330	<330	<330	<330
8	5/4/2007	9'- 10'	<330	<330	<330	<330	<330
11	5/4/2007	5'6"- 6'5"	1,800	880	<330	<330	<330
15a	5/4/2007	1'- 2'	4,700	3,300	<330	<330	<330
15b	5/4/2007	13'- 14'	<330	<330	<330	<330	<330
17	5/4/2007	0'- 1'	<990	<990	<990	<990	<990
SS-1	5/4/2007	0'- 6"	<990	<990	<990	<990	<990

MDEQ Generic Residential							
Direct Contact Criteria			41,000,000	230,000,000	20,000	2,000	20,000
MDEQ Generic Residential							
Ambient Air Inhalation Criteria			81,000,000	1,400,000,000	ID	1,500,000	ID
MDEQ Generic Residential Indoor							
Air Inhalation Criteria			190,000,000	1,000,000,000	NLV	NLV	ID
MDEQ Generic Groundwater							
Protection Criteria			300,000/4,400/970,000	41,000/ID/41,000	NL/NL/NL	NL/NL/NL	NL/NL/NL

Sample	Date	Description	Benzo(g,h,i)perylene 101242	Benzo(k)fluoranthene 207089	Chrysene 218019	Fluoranthene 206440
3	5/3/2007	0'- 6"	400	520	590	590
6	5/3/2007	0'- 6"	<330	<330	<330	<330
6-Dup	5/3/2007	Duplicate	<330	<330	<330	<330
7	5/4/2007	4'- 5'	<330	<330	<330	<330
8	5/4/2007	9'- 10'	<330	<330	<330	<330
11	5/4/2007	5'6"- 6'5"	<330	<330	<330	<330
15a	5/4/2007	1'- 2'	<990	<990	<990	<990
15b	5/4/2007	13'- 14'	<330	<330	<330	<330
17	5/4/2007	0'- 1'	<990	<990	<990	<990
SS-1	5/4/2007	0'- 6"	1,300	<990	1,900	<990

MDEQ Generic Residential						
Direct Contact Criteria			2,500,000	200,000	2,000,000	48,000,000
MDEQ Generic Residential						
Ambient Air Inhalation Criteria			800,000,000	NLV	ID	740,000,000
MDEQ Generic Residential Indoor						
Air Inhalation Criteria			NLV	NLV	ID	1,000,000,000
MDEQ Generic Groundwater						
Protection Criteria			NL/NL/NL	NL/NL/NL	NL/NL/NL	730,000/5,500/730,000

Sample	Date	Description	Fluorene 86737	2-Methylnaphthalene 91576	Phenanthrene 85018	Pyrene 129000
3	5/3/2007	0'- 6"	<330	<330	850	1,400
6	5/3/2007	0'- 6"	<330	<330	<330	<330
6-Dup	5/3/2007	Duplicate	<330	<330	1,200	2,000
7	5/4/2007	4'- 5'	<330	<330	<330	<330
8	5/4/2007	9'- 10'	<330	<330	<330	<330
11	5/4/2007	5'6"- 6'5"	2,700	15,000	5,200	630
15a	5/4/2007	1'- 2'	8,000	55,000	17,000	2,200
15b	5/4/2007	13'- 14'	<330	<330	<330	<330
17	5/4/2007	0'- 1'	<990	13,000	1,200	<990
SS-1	5/4/2007	0'- 6"	<990	<990	<990	2,200

MDEQ Generic Residential						
Direct Contact Criteria			27,000,000	8,100,000	1,600,000	29,000,000
MDEQ Generic Residential						
Ambient Air Inhalation Criteria			130,000,000	ID	160,000	650,000,000
MDEQ Generic Residential Indoor						
Air Inhalation Criteria			580,000,000	ID	2,600,000	1,000,000,000
MDEQ Generic Groundwater						
Protection Criteria			390,000/5,300/890,000	57,000/ID/5,500,000	56,000/5,300/1,100,000	480,000/ID/480,000

- NOTES:
- All values expressed in ug/l kg
 - MDEQ Generic Residential Direct Contact, Ambient Air, Indoor Air, and Groundwater Protection Criteria from Part 201 Generic Cleanup Criteria and Screening Levels (Soil: Residential and Commercial) dated January 23, 2006.
 - Most rigorous of Ambient Air Criteria presented.
 - Groundwater Protection Criteria presented as DW, GSI, and GCC.
 - "ID" = MDEQ indicates inadequate data to develop criterion
 - "NLV" = MDEQ indicates chemical not likely to volatilize
 - "NLL" = MDEQ indicates chemical not likely to leach
 - Chemical Abstract Service (CAS) Numbers are presented below chemicals as provided by the MDEQ.
 - Boldfaced values exceed MDEQ Generic Residential Groundwater Protection Criteria

Table 3

Summary of Volatile Organics Chemistry Results (Soil)

TABLE 3- SUMMARY OF VOLATILE ORGANICS CHEMISTRY RESULTS (Soil)

Sample	Date	Description	Benzene 71432	n-Butylbenzene 104378	Ethylbenzene 100414	Isopropylbenzene 98828	2-Methylnaphthalene 91576	Naphthalene 91203
3	5/3/2007	0'-6"	<50	NT	<50	<50	NT	NT
6	5/3/2007	0'-6"	<50	500	<50	<50	870	<250
6-Dup	5/3/2007	Duplicate	<50	310	<50	<50	1,800	270
7	5/4/2007	4'-5"	<50	NT	<50	<50	NT	NT
8	5/4/2007	9'-10"	<50	NT	<50	<50	NT	NT
11	5/4/2007	56"-65"	<50	4,400	<950	430	63,000	12,000
15a	5/4/2007	1'-2'	<50	<50	<50	<50	<250	<250
15b	5/4/2007	13'-14'	<250	<250	<250	<250	19,000	2,800
17	5/4/2007	0'-1'	<200	NT	<200	<200	NT	NT
SS-1	5/4/2007	0'-6"	<200	NT	<200	<200	NT	NT
MDEQ Generic Residential Direct Contact Criteria for Soil			180,000	2,500,000	140,000	390,000 (7)	8,100,000	15,000,000
MDEQ Generic Residential Ambient Air Inhalation Criteria for Soil			13,000	ID	720,000	1,700,000	ID	300,000
MDEQ Generic Residential Indoor Air Inhalation Criteria for Soil			1,600	ID	87,000	390,000 (7)	ID	250,000
MDEQ Generic Residential Groundwater Protection Criteria			100/4,000/220,000	1,600/ID/120,000	1,500/360/140,000 (7)	91,000/ID/5,500,000 (7)	57,000/ID/5,500,000	35,000/870/2,100,000
Sample	Date	Description	n-Propylbenzene 103651	Toluene 108883	1,2,4-Trimethylbenzene 95636	1,3,5-Trimethylbenzene 106678	Xylenes 1330287	
3	5/3/2007	0'-6"	<50	<50	<50	<50	<150	
6	5/3/2007	0'-6"	<50	130	<50	280	<150	
6-Dup	5/3/2007	Duplicate	<50	<50	230	180	<150	
7	5/4/2007	4'-5"	<50	<50	<50	<50	<150	
8	5/4/2007	9'-10"	<50	<50	<50	<50	<150	
11	5/4/2007	56"-65"	1,100	<50	6,800	2,500	1,600	
15a	5/4/2007	1'-2'	<950	<950	11,000	3,100	<2,850	
15b	5/4/2007	13'-14'	<50	<50	<50	<50	<150	
17	5/4/2007	0'-1'	<250	<250	<250	<250	<750	
SS-1	5/4/2007	0'-6"	<200	<200	<200	<200	<600	
MDEQ Generic Residential Direct Contact Criteria for Soil			2,500,000	250,000	110,000 (7)	94,000 (7)	150,000	
MDEQ Generic Residential Ambient Air Inhalation Criteria for Soil			1,300,000,000	2,800,000	21,000,000	16,000,000	46,000,000	
MDEQ Generic Residential Indoor Air Inhalation Criteria for Soil			ID	250,000 (7)	110,000 (7)	94,000 (7)	150,000 (7)	
MDEQ Generic Residential Groundwater Protection Criteria			1,600/NA/300,000	16,000/2,800/250,000 (7)	2,100/570/10,000 (7)	1,800/1,100/94,000 (7)	5,600/700/150,000 (7)	

NOTES:
 1. All values expressed in ug/g
 2. MDEQ Generic Residential Direct Contact, Ambient Air, Indoor Air, and Groundwater Protection Criteria from Part 201, Generic Cleanup Criteria and Screening Levels "Soil: Residential and Commercial" dated January 23, 2006.
 3. Groundwater Protection Criteria presented as DW, GSI, and GCC.
 4. Most rigorous of Ambient Air Criteria presented.
 5. "ID" = MDEQ indicates inadequate data to develop criterion.
 6. "NA" = MDEQ indicates criteria not applicable.
 7. MDEQ indicates comparative criterion "is a screening level based on the chemical-specific generic soil saturation concentration (C_{sat}) since the calculated risk-based criterion is greater than C_{sat}".
 8. Site specific evaluation may demonstrate that exceedance of these generic criteria are acceptable given future intended use.
 9. Chemical Abstract Service (CAS) Numbers are presented below chemicals as provided by the MDEQ.
 10. Boldface values exceed current Groundwater Protection Criteria.

Table 4

Summary of Organics Chemistry Results (Water)

TABLE 4 - SUMMARY OF ORGANICS CHEMISTRY RESULTS (Water)

Sample	Date	Depth	Acenaphthene 83329	Ethylbenzene 100414	Fluorene 86737	2-Methylnaphthalene 91576
1W	5/3/2007	1'- 6'	NT	<1	NT	<1
2W	5/3/2007	0- 3'6"	NT	<1	NT	<1
9W	5/4/2007	3'6"- 8'6"	<5	5	<5	8
10W	5/4/2007	5'- 10'	11	28	13	<5
15W	5/4/2007	4'6"- 9'6"	<5	<10	<5	14
15W-Dup	5/4/2007	Duplicate	<5	<10	<5	16
19W	5/4/2007	3'6"- 8'6"	<5	<1	<5	<5
23W	5/4/2007	5'- 10'	<5	<1	<5	<5
31W	5/4/2007	4'- 9'	NT	<1	NT	<1

MDEQ Generic Residential						
Drinking Water Criteria			1,300	74	880	260
MDEQ Generic Residential Groundwater						
Surface Water Interface (GSI) Criteria			19	18	12	ID
MDEQ Generic Residential Indoor						
Air Inhalation Criteria			4,200	110,000	2,000	ID
MDEQ Generic Residential						
Groundwater Contact Criteria			4,200	170,000	2,000	25,000
Flammability and Explosivity						
Screening Level			ID	43,000	ID	ID
Acute Inhalation						
Screening Level			ID	170,000	ID	ID

Sample	Date	Depth	Phenanthrene 85018	1,2,4-Trimethylbenzene 95636	1,3,5-Trimethylbenzene 108678
1W	5/3/2007	1'- 6'	NT	<1	<1
2W	5/3/2007	0- 3'6"	NT	<1	<1
9W	5/4/2007	3'6"- 8'6"	2	14	6
10W	5/4/2007	5'- 10'	9	29	<1
15W	5/4/2007	4'6"- 9'6"	<2	27	<10
15W-Dup	5/4/2007	Duplicate	<2	27	<10
19W	5/4/2007	3'6"- 8'6"	<2	<1	<1
23W	5/4/2007	5'- 10'	<2	<1	<1
31W	5/4/2007	4'- 9'	NT	<1	<1

MDEQ Generic Residential					
Drinking Water Criteria			52	63	72
MDEQ Generic Residential Groundwater					
Surface Water Interface (GSI) Criteria			2.4	17	45
MDEQ Generic Residential Indoor					
Air Inhalation Criteria			1,000	56,000	61,000
MDEQ Generic Residential					
Groundwater Contact Criteria			1,000	56,000	61,000
Flammability and Explosivity					
Screening Level			ID	56,000	ID
Acute Inhalation					
Screening Level			ID	ID	ID

NOTES:

- All values expressed in ug/L.
- MDEQ Generic Residential Drinking Water, GSI, Indoor Air, and Groundwater Contact Criteria and Flammability, Explosivity and Acute Inhalation Screening Levels from Part 201 Generic Cleanup Criteria and Screening Levels "Groundwater, Residential and Industrial-Commercial" dated January 23, 2006.
- "ID" = MDEQ indicates inadequate data to develop criterion.
- Chemical Abstract Service (CAS) Numbers are presented below chemicals as provided by the MDEQ.
- Boldfaced values exceed Drinking Water Criteria.
- Values shown thus exceed MDEQ GSI Criteria.

Attachment I

Site Location Map

Site Location Map



Data use subject to license.

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Scale 1 : 25,000

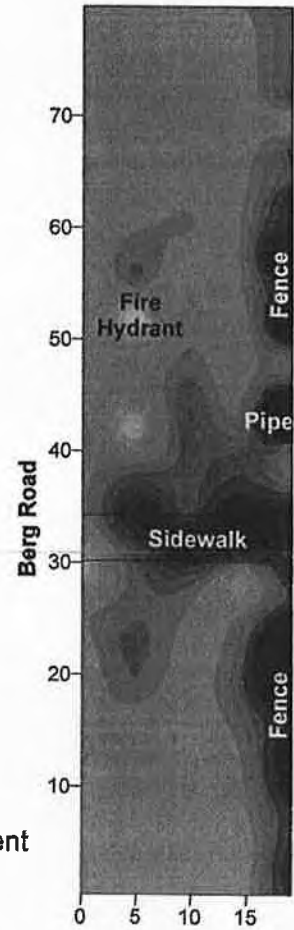
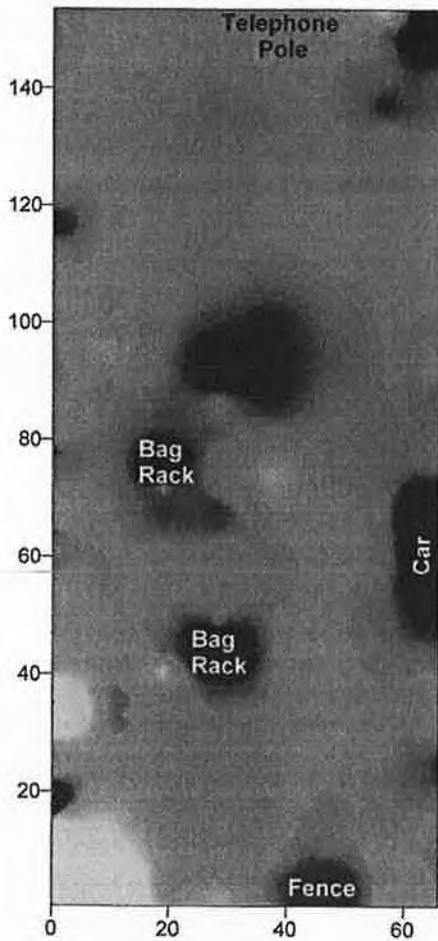
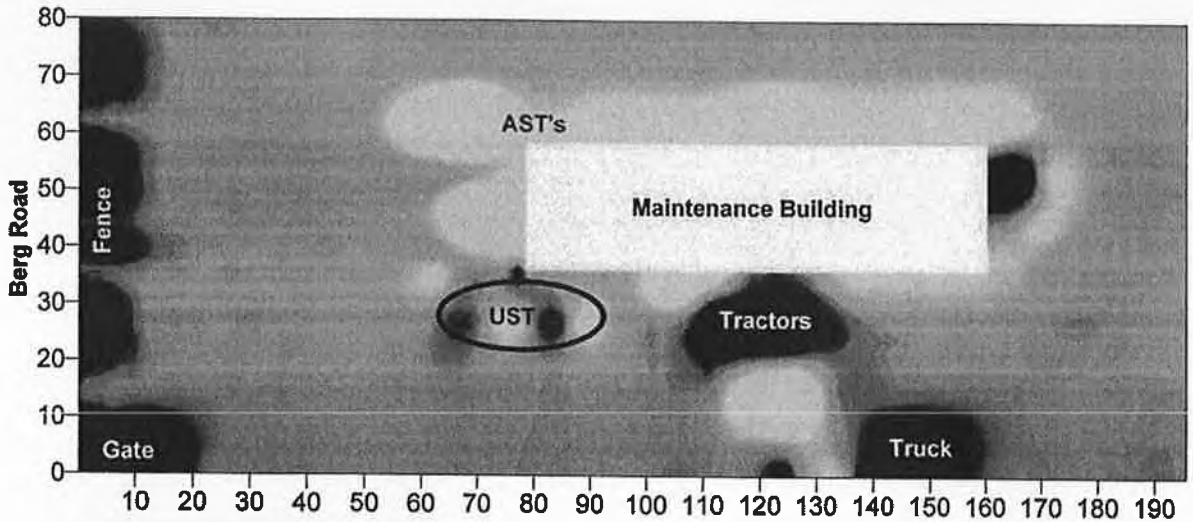


1" = 2,083.3 ft Data Zoom 13-0

Attachment II

Magnetic Gradient Maps

Magnetometry Survey
 18601 Berg Road - Detroit, Michigan
 Job No. 07-14031



- - Relatively Neutral Gradient
- - High Gradient
- - Low Gradient
- Distances for Reference Only
- Distances in Feet

Attachment III



Soil Boring Location Maps

Environmental Site Assessment
Approximate 120-Acre Golf Course
18601 Berg Rd. - Detroit, MI
Job Number: 07-14031



Soil Boring Location Map



 Approximate Soil Boring Location
 Approximate Property Boundary

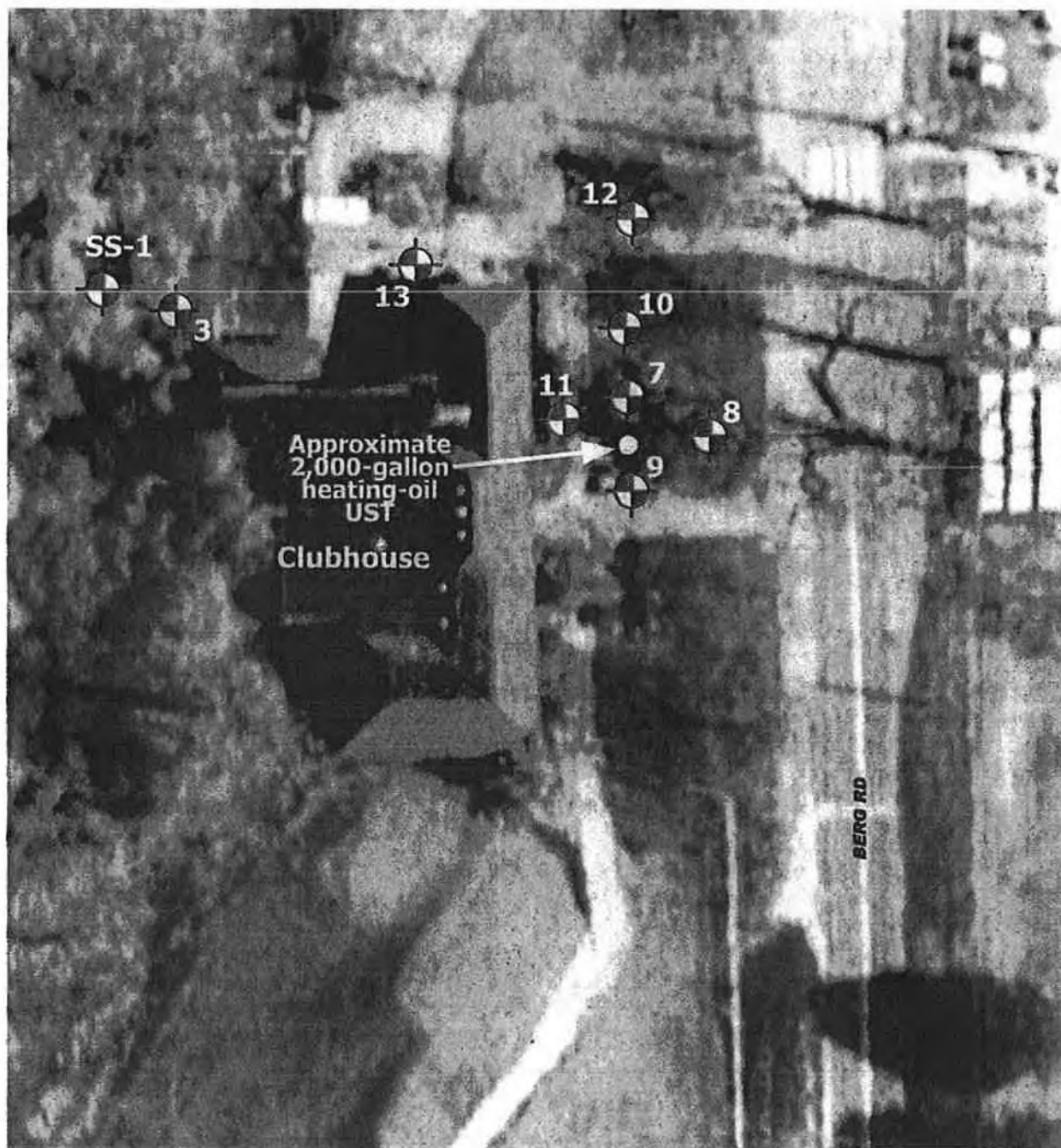




Environmental Site Assessment
Approximate 120-Acre Golf Course
18601 Berg Rd. - Detroit, MI
Job Number: 07-14031



Soil Boring Location Map

Inset "A" - The Clubhouse Area



 **Approximate Soil Boring Location**
 **Approximate Property Boundary**





Environmental Site Assessment
Approximate 120-Acre Golf Course
18601 Berg Rd. - Detroit, MI
Job Number: 07-14031



Soil Boring Location Map

Inset "B" - The Cart and Storage Building Area



 Approximate Soil Boring Location
 Approximate Property Boundary



Attachment IV

Log of Soil Boring Sheets



McDOWELL & ASSOCIATES
 Geotechnical, Environmental, & Hydrogeologic Services
 21355 Hatcher Avenue • Ferndale, MI 48220
 Phone: (248) 399-2066 • Fax: (248) 399-2157

LOG OF SOIL
 BORING NO. 1

PROJECT Environmental Site Assessment

JOB NO. 07-14031

LOCATION Approximate 120-Acre Golf Course
18601 Berg Road
Detroit, Michigan

SURFACE ELEV. _____ DATE 5-3-07

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
	1	[Dotted Pattern]	0'3" Moist dark brown sandy TOPSOIL		ND			
	2		Moist brown silty fine SAND		ND			
	3	[Dotted Pattern]	2'0" Moist brown silty fine SAND		ND			
	4		Wet brown silty fine SAND		ND			
	5	[Vertical Lines]	4'6" Wet gray sandy SILT					
	6		6'0" Moist variegated silty CLAY		ND			
	7	[Diagonal Lines]	6'6" Moist variegated silty CLAY					
	8							
	9							
	10							
	11		Notes:					
	12		* Hand auger boring					
	13		* Set 2" PVC temporary well with 5' screen. Bottom of screen at 6'.					
	14		* Pulled well at completion.					
	15							
	16							
	17							
	18							
	19							
	20		ND = None Detected					
	21							
	22							
	23							
	24							
	25							

<p>TYPE OF SAMPLE D. - DISTURBED U.L. - UNDIST. LINER S.T. - SHELBY TUBE S.S. - SPLIT SPOON R.C. - ROCK CORE () - PENETROMETER</p>	<p>REMARKS: Standard Penetration Test - Driving 2" OD Sampler 1' With 140# Hammer Falling 30"; Count Made at 6" Intervals</p>	<p>GROUND WATER OBSERVATIONS G.W. ENCOUNTERED AT 2 FT. 0 INS. G.W. ENCOUNTERED AT FT. INS. G.W. AFTER COMPLETION FT. INS. G.W. AFTER HRS. FT. INS. G.W. VOLUMES Heavy</p>
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McDOWELL & ASSOCIATES
 Geotechnical, Environmental, & Hydrogeologic Services
 21355 Hatcher Avenue • Ferndale, MI 48220
 Phone: (248) 399-2066 • Fax: (248) 399-2157

JOB NO. 07-14031

SURFACE ELEV. _____ DATE 5-3-07

LOG OF SOIL
 BORING NO. 2

PROJECT Environmental Site Assessment

LOCATION Approximate 120-Acre Golf Course
 18601 Berg Road
 Detroit, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
	1		Moist to wet dark brown sandy clayey TOPSOIL		ND			
	2		2'0"					
	3		Wet brown clayey SAND		ND			
	4		3'6"					
	5							
	6							
	7							
	8							
	9							
	10		Notes:					
	11		* Hand auger boring.					
	12		* Set 2" PVC temporary well with bottom of screen at 3'6".					
	13		* Pulled well at completion.					
	14							
	15							
	16							
	17							
	18							
	19							
	20		ND = None Detected					
	21							
	22							
	23							
	24							
	25							

TYPE OF SAMPLE
 D. - DISTURBED
 U.L. - UNDIST. LINER
 S.T. - SHELBY TUBE
 S.S. - SPLIT SPOON
 R.C. - ROCK CORE
 () - PENETROMETER

REMARKS:

Standard Penetration Test - Driving 2" OD Sampler 1' With
 140# Hammer Falling 30". Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 1 FT. 0 INS.
 G.W. ENCOUNTERED AT FT. INS.
 G.W. AFTER COMPLETION FT. INS.
 G.W. AFTER HRS. FT. INS.
 G.W. VOLUMES Heavy



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LOG OF SOIL
 BORING NO. 3

PROJECT Environmental Site Assessment

JOB NO. 07-14031

LOCATION Approximate 120-Acre Golf Course
18601 Berg Road
Detroit, Michigan

SURFACE ELEV. _____ DATE 5-3-07

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
3	1		Moist dark brown sandy TOPSOIL, possible fill		1			
	2		1'6"					
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11		Note: * Hand auger boring.					
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20							
	21							
	22							
	23							
	24							
	25							

TYPE OF SAMPLE D. - DISTURBED U.L. - UNDIST. LINER S.T. - SHELBY TUBE S.S. - SPLIT SPOON R.C. - ROCK CORE () - PENETROMETER	REMARKS: Standard Penetration Test - Driving 2" OD Sampler 1' With 140# Hammer Falling 30"; Count Made at 6" Intervals	GROUND WATER OBSERVATIONS G.W. ENCOUNTERED AT FT. INS. G.W. ENCOUNTERED AT FT. INS. G.W. AFTER COMPLETION FT. INS. G.W. AFTER HRS. FT. INS. G.W. VOLUMES <u>None</u>
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 21355 Hatcher Avenue • Ferndale, MI 48220
 Phone: (248) 399-2066 • Fax: (248) 399-2157

LOG OF SOIL
 BORING NO. 4

PROJECT Environmental Site Assessment

JOB NO. 07-14031

LOCATION Approximate 120-Acre Golf Course
18601 Berg Road
Detroit, Michigan

SURFACE ELEV. _____ DATE 5-3-07

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den Vt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
4	1		0'8" Moist dark brown sandy TOPSOIL		ND			
			1'3" Moist brown silty fine SAND					
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20							
	21							
	22							
	23							
	24							
	25							

Note:
 * Hand auger boring.

ND = None Detected

<p>TYPE OF SAMPLE D. - DISTURBED U.L. - UNDIST. LINER S.T. - SHELBY TUBE S.S. - SPLIT SPOON R.C. - ROCK CORE () - PENETROMETER</p>	<p>REMARKS: Standard Penetration Test - Driving 2" OD Sampler 1' With 140# Hammer Falling 30"; Count Made at 6" Intervals.</p>	<p>GROUND WATER OBSERVATIONS</p> <table border="0"> <tr> <td>G.W. ENCOUNTERED AT</td> <td>FT.</td> <td>INS.</td> </tr> <tr> <td>G.W. ENCOUNTERED AT</td> <td>FT.</td> <td>INS.</td> </tr> <tr> <td>G.W. AFTER COMPLETION</td> <td>FT.</td> <td>INS.</td> </tr> <tr> <td>G.W. AFTER</td> <td>HRS.</td> <td>FT.</td> </tr> <tr> <td>G.W. VOLUMES</td> <td colspan="2">None</td> </tr> </table>	G.W. ENCOUNTERED AT	FT.	INS.	G.W. ENCOUNTERED AT	FT.	INS.	G.W. AFTER COMPLETION	FT.	INS.	G.W. AFTER	HRS.	FT.	G.W. VOLUMES	None	
G.W. ENCOUNTERED AT	FT.	INS.															
G.W. ENCOUNTERED AT	FT.	INS.															
G.W. AFTER COMPLETION	FT.	INS.															
G.W. AFTER	HRS.	FT.															
G.W. VOLUMES	None																



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LOG OF SOIL
 BORING NO. 5

PROJECT Environmental Site Assessment

JOB NO. 07-14031

LOCATION Approximate 120-Acre Golf Course
18601 Berg Road
Detroit, Michigan

SURFACE ELEV. _____ DATE 5-3-07

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den WL P.C.F.	Unc. Comp. Strength PSF.	Str. %
5	1		0'8" Moist dark brown sandy TOPSOIL		ND			
			1'3" Moist brown silty fine SAND					
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20							
	21							
	22							
	23							
	24							
	25							

Note:
 * Hand auger boring.

ND = None Detected

<p>TYPE OF SAMPLE D. - DISTURBED U.L. - UNDIST. LINER S.T. - SHELBY TUBE S.S. - SPLIT SPOON R.C. - ROCK CORE () - PENETROMETER</p>	<p>REMARKS: Standard Penetration Test - Driving 2" OD Sampler 1' With 140# Hammer Falling 30"; Count Made at 6" Intervals</p>	<p>GROUND WATER OBSERVATIONS</p> <table border="0"> <tr> <td>G.W. ENCOUNTERED AT</td> <td>FT.</td> <td>INS.</td> </tr> <tr> <td>G.W. ENCOUNTERED AT</td> <td>FT.</td> <td>INS.</td> </tr> <tr> <td>G.W. AFTER COMPLETION</td> <td>FT.</td> <td>INS.</td> </tr> <tr> <td>G.W. AFTER</td> <td>HRS.</td> <td>FT.</td> </tr> <tr> <td>G.W. VOLUMES</td> <td colspan="2">None</td> </tr> </table>	G.W. ENCOUNTERED AT	FT.	INS.	G.W. ENCOUNTERED AT	FT.	INS.	G.W. AFTER COMPLETION	FT.	INS.	G.W. AFTER	HRS.	FT.	G.W. VOLUMES	None	
G.W. ENCOUNTERED AT	FT.	INS.															
G.W. ENCOUNTERED AT	FT.	INS.															
G.W. AFTER COMPLETION	FT.	INS.															
G.W. AFTER	HRS.	FT.															
G.W. VOLUMES	None																



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LOG OF SOIL
 BORING NO. 6

PROJECT Environmental Site Assessment

JOB NO. 07-14031

LOCATION Approximate 120-Acre Golf Course
18601 Berg Road
Detroit, Michigan

SURFACE ELEV. _____ DATE 5-3-07

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den WL P.C.F.	Unc. Comp. Strength PSF.	Str. %
6	1		1'0" Moist black coarse SAND & GRAVEL with odor		25			
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20							
	21							
	22							
	23							
	24							
	25							

Note:
 * Hand auger boring.

<p>TYPE OF SAMPLE D. - DISTURBED U.L. - UNDIST. LINER S.T. - SHELBY TUBE S.S. - SPLIT SPOON R.C. - ROCK CORE () - PENETROMETER</p>	<p>REMARKS: Standard Penetration Test - Driving 2" OD Sampler 1" With 140# Hammer Falling 30". Count Made at 6" Intervals</p>	<p>GROUND WATER OBSERVATIONS</p> <table border="0"> <tr> <td>G.W. ENCOUNTERED AT</td> <td>FT.</td> <td>INS.</td> </tr> <tr> <td>G.W. ENCOUNTERED AT</td> <td>FT.</td> <td>INS.</td> </tr> <tr> <td>G.W. AFTER COMPLETION</td> <td>FT.</td> <td>INS.</td> </tr> <tr> <td>G.W. AFTER</td> <td>HRS.</td> <td>FT.</td> </tr> <tr> <td>G.W. VOLUMES</td> <td colspan="2">None</td> </tr> </table>	G.W. ENCOUNTERED AT	FT.	INS.	G.W. ENCOUNTERED AT	FT.	INS.	G.W. AFTER COMPLETION	FT.	INS.	G.W. AFTER	HRS.	FT.	G.W. VOLUMES	None	
G.W. ENCOUNTERED AT	FT.	INS.															
G.W. ENCOUNTERED AT	FT.	INS.															
G.W. AFTER COMPLETION	FT.	INS.															
G.W. AFTER	HRS.	FT.															
G.W. VOLUMES	None																



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LOG OF SOIL
 BORING NO. 7

PROJECT Environmental Site Assessment

JOB NO. 07-14031

LOCATION Approximate 120-Acre Golf Course
18601 Berg Road
Detroit, Michigan

SURFACE ELEV. _____ DATE 5-4-07

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
	1		Moist dark brown sandy TOPSOIL, fill		ND			
	2		1'6"					
	3					ND		
	4			Moist brown silty fine SAND				
	5					5		
7	6		5'0"					
	7		5'8"	Wet discolored silty fine SAND with odor		5		
	8		6'6"					
	9							
	10		Note:					
	11		* Hand auger boring.					
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20		ND = None Detected					
	21							
	22							
	23							
	24							
	25							

TYPE OF SAMPLE
 D. - DISTURBED
 U.L. - UNDIST. LINER
 S.T. - SHELBY TUBE
 S.S. - SPLIT SPOON
 R.C. - ROCK CORE
 () - PENETROMETER

REMARKS:
 Standard Penetration Test - Driving 2" OD Sampler 1' With
 140# Hammer Falling 30": Count Made at 6" Intervals

GROUND WATER OBSERVATIONS
 G.W. ENCOUNTERED AT 5 FT. 0 INS.
 G.W. ENCOUNTERED AT FT. INS.
 G.W. AFTER COMPLETION FT. INS.
 G.W. AFTER HRS. FT. INS.
 G.W. VOLUMES Heavy



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JOB NO. 07-14031

LOG OF SOIL
 BORING NO. 8

PROJECT Environmental Site Assessment

LOCATION Approximate 120-Acre Golf Course
 18601 Berg Road
 Detroit, Michigan

SURFACE ELEV. _____ DATE 5-4-07

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 8"	PID Readings RAE Units	Dry Den WL P.C.F.	Unc. Comp. Strength PSF.	Str. %
	1		0'5" Moist dark brown organic fine sandy TOPSOIL, fill		ND			
	2		Moist brown silty fine SAND with clay seams, fill					
	3		2'6" Moist brown fine SAND		ND			
	4		4'0" Wet brown fine SAND					
	5				ND			
	6							
	7				ND			
	8		7'1" Wet brown fine sandy SILT					
	9		8'4" Moist brown silty CLAY with sand and wet sand and silt seams		ND			
8	10		9'6" Moist blue silty CLAY					
	11				ND			
	12							
	13		12'4" Stiff moist blue silty CLAY with traces of sand and pebbles		ND			
	14		14'0" ND = None Detected					
	15							
	16							
	17							
	18							
	19							
	20							
	21							
	22							
	23							
	24							
	25							

TYPE OF SAMPLE
 D. - DISTURBED
 U.L. - UNDIST. LINER
 S.T. - SHELBY TUBE
 S.S. - SPLIT SPOON
 R.C. - ROCK CORE
 () - PENETROMETER

REMARKS:

Standard Penetration Test - Driving 2" OD Sampler 1" With
 140# Hammer Falling 30"; Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 4 FT. 0 INS.
 G.W. ENCOUNTERED AT FT. INS.
 G.W. AFTER COMPLETION 5 FT. 4 INS.
 G.W. AFTER HRS. FT. INS.
 G.W. VOLUMES Heavy Cave-in at 5'7"



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LOG OF SOIL
 BORING NO. 9

PROJECT Environmental Site Assessment

JOB NO. 07-14031

LOCATION Approximate 120-Acre Golf Course
 18601 Berg Road
 Detroit, Michigan

SURFACE ELEV. _____ DATE 5-4-07

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
	1		Moist dark brown organic fine sandy TOPSOIL with vegetation and trace of silt, fill		ND			
	2		17" Moist brown silty fine SAND					
	3					ND		
	4		4'7" Wet brown fine SAND with odor					
	5					ND		
	6		6'7" Wet brown fine sandy SILT with odor and clay seams					
	7					ND		
	8		8'5" Moist blue silty CLAY with wet sand seams					
	9					ND		
	10		9'6" Moist blue silty CLAY with traces of sand and pebbles					
	11					ND		
	12		14'0" Notes: * Set 2" diameter PVC temporary well in boring with screen bottom at 8'6". * Pulled at completion. ND = None Detected					
	13					ND		
	14							
	15							
	16							
	17							
	18							
	19							
	20							
	21							
	22							
	23							
	24							
	25							

TYPE OF SAMPLE
 D. - DISTURBED
 U.L. - UNDIST. LINER
 S.T. - SHELBY TUBE
 S.S. - SPLIT SPOON
 R.C. - ROCK CORE
 () - PENETROMETER

REMARKS:
 Standard Penetration Test - Driving 2" OD Sampler 1" With
 140# Hammer Falling 30"; Count Made at 5" Intervals

GROUND WATER OBSERVATIONS
 G.W. ENCOUNTERED AT 4 FT. 7 INS.
 G.W. ENCOUNTERED AT FT. INS.
 G.W. AFTER COMPLETION 4 FT. 6 INS.
 G.W. AFTER HRS. FT. INS.
 G.W. VOLUMES Heavy Cave-in at 4'6"



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LOG OF SOIL
 BORING NO. 10

PROJECT Environmental Site Assessment

JOB NO. 07-14031

LOCATION Approximate 120-Acre Golf Course
 18601 Berg Road
 Detroit, Michigan

SURFACE ELEV. _____ DATE 5-4-07

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
	1		0'8" Moist dark brown organic fine sandy TOPSOIL with vegetation, fill		ND			
	2		2'0" Moist dark brown fine SAND with vegetation and clay chunks and seams, fill					
	3				ND			
	4		Moist brown fine SAND with blue clay chunks or seams, fill					
	5				ND			
	6		5'6"					
	7		Wet brown fine SAND with discolored streaks and clay chunks, fill		5			
	8							
	9		8'2"					
	10		Wet discolored black fine SAND with odor		10			
	11		10'7"					
	12		Moist blue silty CLAY with traces of sand and pebbles		10			
	13							
	14		13'3" Stiff moist blue silty CLAY					
	14'0"				ND			
	15							
	16							
	17							
	18							
	19							
	20							
	21		Notes:					
	22		* Set 2" diameter PVC temporary well in boring with screen bottom at 10'.					
	23		* Pulled at completion.					
	24		ND = None Detected					
	25							

TYPE OF SAMPLE
 D. - DISTURBED
 U.L. - UNDIST. LINER
 S.T. - SHELBY TUBE
 S.S. - SPLIT SPOON
 R.C. - ROCK CORE
 { } - PENETROMETER

REMARKS:

 Standard Penetration Test - Driving 2" OD Sampler 1' With
 140# Hammer Falling 30". Count Made at 6" Intervals

GROUND WATER OBSERVATIONS
 G.W. ENCOUNTERED AT 5 FT. 8 INS.
 G.W. ENCOUNTERED AT FT. INS.
 G.W. AFTER COMPLETION 5 FT. 7 INS.
 G.W. AFTER HRS. FT. INS.
 G.W. VOLUMES Heavy Cave-in at 5'7"



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LOG OF SOIL
 BORING NO. 11

PROJECT Environmental Site Assessment

JOB NO. 07-14031

LOCATION Approximate 120-Acre Golf Course
18601 Berg Road
Detroit, Michigan

SURFACE ELEV. _____ DATE 5-4-07

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den Wt. P.C.F.	Uno. Comp. Strength PSF.	Str. %
	1		1'0" Moist dark brown sandy TOPSOIL, fill					
	2				ND			
	3		Moist brown silty fine SAND, possible fill					
	4				ND			
	5		4'6" Moist variegated silty CLAY, possible fill					
	6		5'6" Moist to wet discolored silty SAND with odor		1			
11	7		6'6"		5			
	8							
	9							
	10		Note:					
	11		* Hand auger boring.					
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20		ND = None Detected					
	21							
	22							
	23							
	24							
	25							

TYPE OF SAMPLE
 D. - DISTURBED
 U.L. - UNDIST. LINER
 S.T. - SHELBY TUBE
 S.S. - SPLIT SPOON
 R.C. - ROCK CORE
 { } - PENETROMETER

REMARKS:
 Standard Penetration Test - Driving 2" OD Sampler 1' With
 140# Hammer Falling 30"; Count Made at 6" Intervals

GROUND WATER OBSERVATIONS
 G.W. ENCOUNTERED AT 5 FT. 6 INS.
 G.W. ENCOUNTERED AT FT. INS.
 G.W. AFTER COMPLETION FT. INS.
 G.W. AFTER HRS. FT. INS.
 G.W. VOLUMES Heavy



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JOB NO. 07-14031

SURFACE ELEV. _____ DATE 5-4-07

LOG OF SOIL
 BORING NO. 12

PROJECT Environmental Site Assessment

LOCATION Approximate 120-Acre Golf Course
 18601 Berg Road
 Detroit, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den WL P.C.F.	Unc. Comp. Strength PSF.	Str. %
			0'4" Moist dark brown organic fine sandy TOPSOIL with vegetation, fill		ND			
	1		1'3" Moist brown silty fine SAND, fill					
	2		1'7" Moist discolored brown gravelly fine SAND, fill					
	3		Moist brown silty fine SAND		ND			
	4		4'2" Wet brown silty fine SAND		ND			
	5		6'3" Wet brown fine sandy SILT		ND			
	6		7'0" Moist blue silty CLAY with wet silt seams					
	7		8'5" Wet gray fine sandy SILT		ND			
	8		9'6" Moist blue silty CLAY with traces of sand and pebbles					
	9		12'6" Stiff moist blue silty CLAY with traces of sand and pebbles		ND			
	10		14'0"					
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20							
	21							
	22							
	23							
	24							
	25							

ND = None Detected

TYPE OF SAMPLE
 D. - DISTURBED
 U.L. - UNDIST. LINER
 S.T. - SHELBY TUBE
 S.S. - SPLIT SPOON
 R.C. - ROCK CORE
 () - PENETROMETER

REMARKS:

Standard Penetration Test - Driving 2" DD Sampler 1' With
 140# Hammer Falling 30". Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 4 FT. 2 INS.
 G.W. ENCOUNTERED AT 4 FT. 5 INS.
 G.W. AFTER COMPLETION 4 FT. 5 INS.
 G.W. AFTER HRS. FT. INS.
 G.W. VOLUMES Heavy Cave-in at 4'5"



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LOG OF SOIL
 BORING NO. 13

PROJECT Environmental Site Assessment

JOB NO. 07-14031

LOCATION Approximate 120-Acre Golf Course
 18601 Berg Road
 Detroit, Michigan

SURFACE ELEV. _____ DATE 5-4-07

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
	1		0'6" CONCRETE		ND			
	2		Moist discolored brown fine SAND with pebbles, fill					
	3		2'7" Moist brown fine SAND, fill		ND			
	4		3'8" Moist to wet brown clayey fine SAND with clay chunks or seams, possible fill					
	5		6'0" Wet brown fine sandy SILT		ND			
	6		7'0" Moist blue silty CLAY with traces of sand and pebbles					
	7		9'6" Moist blue silty CLAY with traces of sand and pebbles		ND			
	8		11'0" Moist blue silty CLAY with traces of sand and pebbles					
	9		13'0" Moist blue silty CLAY with traces of sand and pebbles		ND			
	10		14'0" Moist blue silty CLAY with traces of sand and pebbles					
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20							
	21							
	22							
	23							
	24							
	25							

ND = None Detected

TYPE OF SAMPLE
 D. - DISTURBED
 U.L. - UNDIST. LINER
 S.T. - SHELBY TUBE
 S.S. - SPLIT SPOON
 R.C. - ROCK CORE
 () - PENETROMETER

REMARKS:

Standard Penetration Test - Driving 2" OD Sampler 1' With
 140# Hammer Falling 30"; Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 4 FT. 6 INS.
 G.W. ENCOUNTERED AT FT. INS.
 G.W. AFTER COMPLETION 4 FT. 7 INS.
 G.W. AFTER HRS. FT. INS.
 G.W. VOLUMES Heavy Cave-in at 4'7"



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LOG OF SOIL
 BORING NO. 14

PROJECT Environmental Site Assessment

JOB NO. 07-14031

LOCATION Approximate 120-Acre Golf Course
 18601 Berg Road
 Detroit, Michigan

SURFACE ELEV. _____ DATE 5-4-07

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
			0'5" Moist dark brown organic silty fine sandy TOPSOIL with traces of clay and vegetation, fill		ND			
	1							
	2		1'8" Moist dark brown fine SAND, fill					
	3				ND			
	4		Moist to wet brown fine SAND with trace of silt					
	5				ND			
	6		5'0"					
	7		Wet brown fine SAND		ND			
	8							
	9		9'0"		ND			
	10		10'0" Wet brown fine sandy SILT with trace of clay		ND			
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20		ND = None Detected					
	21							
	22							
	23							
	24							
	25							

TYPE OF SAMPLE
 D. - DISTURBED
 U.L. - UNDIST. LINER
 S.T. - SHELBY TUBE
 S.S. - SPLIT SPOON
 R.C. - ROCK CORE
 () - PENETROMETER

REMARKS:

Standard Penetration Test - Driving 2" OD Sampler 1' With
 140# Hammer Falling 30": Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 3 FT. 5 INS.
 G.W. ENCOUNTERED AT FT. INS.
 G.W. AFTER COMPLETION 3 FT. 7 INS.
 G.W. AFTER HRS. FT. INS.
 G.W. VOLUMES Heavy Cave-in at 6'



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JOB NO. 07-14031

SURFACE ELEV. _____ DATE 5-4-07

LOG OF SOIL
 BORING NO. 15

PROJECT Environmental Site Assessment

LOCATION Approximate 120-Acre Golf Course
 18601 Berg Road
 Detroit, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den Wt P.C.F.	Unc. Comp. Strength PSF.	Str. %
	1		0'2" ASPHALT					
			Moist discolored brown gravelly SAND, fill					
15a	2		2'0"		40			
	3							
	4		Wet discolored brown fine SAND with pebbles, vegetation, clay and odor, fill		25			
	5							
	6		5'6"		15			
	7		Wet discolored brown fine SAND with odor, fill					
	8		7'6"		15			
	9		Wet discolored black fine SAND with odor					
	10		10'0"		10			
	11		Wet brown fine sandy SILT					
	12		11'5"		5			
	13		12'6"					
			Moist blue silty CLAY with traces of sand and pebbles					
15b	14		14'0"		ND			
	15							
	16							
	17							
	18							
	19							
	20							
	21		Notes:					
	22		* Set 2" diameter PVC temporary well in boring with screen bottom at 9'6".					
	23		* Pulled at completion.					
	24		ND = None Detected					
	25							

TYPE OF SAMPLE
 D. - DISTURBED
 U.L. - UNDIST. LINER
 S.T. - SHELBY TUBE
 S.S. - SPLIT SPOON
 R.C. - ROCK CORE
 () - PENETROMETER

REMARKS:

Standard Penetration Test - Driving 2" OD Sampler 1' With
 140# Hammer Falling 30"; Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 2 FT. 0 INS.
 G.W. ENCOUNTERED AT _____ FT. _____ INS.
 G.W. AFTER COMPLETION 4 FT. 0 INS.
 G.W. AFTER _____ HRS. _____ FT. _____ INS.
 G.W. VOLUMES Medium-Heavy Cave-in at 4'3"



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LOG OF SOIL
 BORING NO. 16

PROJECT Environmental Site Assessment

JOB NO. 07-14031

LOCATION Approximate 120-Acre Golf Course
 18601 Berg Road
 Detroit, Michigan

SURFACE ELEV. _____ DATE 5-4-07

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
			0'1" ASPHALT					
	1		Discolored brown gravelly SAND, fill					
	2		1'9" Moist discolored brown fine SAND, fill		ND			
	3		2'6" Moist brown silty fine SAND, fill					
	4		3'1" Wet brown silty fine SAND, fill					
	5		4'0" Wet discolored black fine SAND		5			
	6		4'7" Moist variegated silty CLAY with silt streaks					
	7		6'9" Wet brown fine SAND		2			
	8				ND			
	9							
	10		10'0" ND = None Detected		ND			
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20							
	21							
	22							
	23							
	24							
	25							

TYPE OF SAMPLE
 D. - DISTURBED
 U.L. - UNDIST. LINER
 S.T. - SHELBY TUBE
 S.S. - SPUT SPOON
 R.C. - ROCK CORE
 () - PENETROMETER

REMARKS:

Standard Penetration Test - Driving 2" OD Sampler 1' With
 140# Hammer Falling 30". Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 3 FT. 1 INS.
 G.W. ENCOUNTERED AT 6 FT. 9 INS.
 G.W. AFTER COMPLETION 6 FT. 1 INS.
 G.W. AFTER HRS. FT. INS.
 G.W. VOLUMES Medium-Heavy Cave-in at 6'2"



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LOG OF SOIL
 BORING NO. 17

PROJECT Environmental Site Assessment

JOB NO. 07-14031

LOCATION Approximate 120-Acre Golf Course
 18601 Berg Road
 Detroit, Michigan

SURFACE ELEV. _____ DATE 5-4-07

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
17	1		0'4" Moist discolored brown fine SAND, fill					
	2		Moist discolored black silty fine SAND with odor, fill		5			
	3		2'0" Moist to wet brown silty fine SAND					
	4		3'9" Moist variegated silty CLAY		ND			
	5							
	6		6'0" Moist variegated silty CLAY		ND			
	7							
	8		Wet brown silty fine SAND with discolored streaks		ND			
	9							
	10		9'9" Wet brown fine sandy clayey SILT		ND			
	11							
	12		11'0" Moist blue silty CLAY with traces of sand and pebbles		ND			
	13							
	14		14'0" Moist blue silty CLAY with traces of sand and pebbles		ND			
	15							
	16							
	17							
	18							
	19							
	20		ND = None Detected					
	21							
	22							
	23							
	24							
	25							

TYPE OF SAMPLE
 D. - DISTURBED
 U.L. - UNDIST. LINER
 S.T. - SHELBY TUBE
 S.S. - SPLIT SPOON
 R.C. - ROCK CORE
 () - PENETROMETER

REMARKS:
 Standard Penetration Test - Driving 2" OD Sampler 1' With
 140# Hammer Falling 30"; Count Made at 6" Intervals

GROUND WATER OBSERVATIONS
 G.W. ENCOUNTERED AT 3 FT. 0 INS.
 G.W. ENCOUNTERED AT 6 FT. 0 INS.
 G.W. AFTER COMPLETION 2 FT. 4 INS.
 G.W. AFTER HRS. FT. INS.
 G.W. VOLUMES Heavy Cave-in at 2'4"



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LOG OF SOIL
 BORING NO. 18

PROJECT Environmental Site Assessment

JOB NO. 07-14031

LOCATION Approximate 120-Acre Golf Course
18601 Berg Road
Detroit, Michigan

SURFACE ELEV. _____ DATE 5-4-07

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Sir. %
	1		0'10" Moist dark brown organic fine sandy TOPSOIL with vegetation and silt		ND			
	2							
	3		Moist brown silty fine SAND		ND			
	4		4'0"					
	5		Wet brown silty fine SAND		ND			
	6		5'7"					
	7		Moist variegated silty CLAY		ND			
	8		7'8"					
	9		Wet brown fine SAND		ND			
	10		9'3"					
	11		Moist blue silty CLAY with traces of sand and pebbles		ND			
	12		12'0"					
	13		Stiff moist blue silty CLAY with traces of sand and pebbles		ND			
	14		14'0"					
	15							
	16							
	17							
	18							
	19							
	20		ND = None Detected					
	21							
	22							
	23							
	24							
	25							

TYPE OF SAMPLE
 D. - DISTURBED
 U.L. - UNDIST. LINER
 S.T. - SHELBY TUBE
 S.S. - SPLIT SPOON
 R.C. - ROCK CORE
 { } - PENETROMETER

REMARKS:
 Standard Penetration Test - Driving 2" OD Sampler 1' With
 140# Hammer Falling 30"; Count Made at 6" Intervals

GROUND WATER OBSERVATIONS
 G.W. ENCOUNTERED AT 4 FT. 0 INS.
 G.W. ENCOUNTERED AT 7 FT. 8 INS.
 G.W. AFTER COMPLETION 7 FT. 0 INS.
 G.W. AFTER HRS. FT. INS.
 G.W. VOLUMES Medium-Heavy Cave-in at 8'5"



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LOG OF SOIL
 BORING NO. 19

PROJECT Environmental Site Assessment

JOB NO. 07-14031

LOCATION Approximate 120-Acre Golf Course
18601 Berg Road
Detroit, Michigan

SURFACE ELEV. _____ DATE 5-4-07

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den WL P.C.F.	Unc. Comp. Strength PSF.	Sr. %
			0'3" ASPHALT					
	1		0'9" Moist discolored brown gravelly SAND, fill		ND			
	2		2'0" Moist discolored brown fine SAND, fill					
	3				ND			
	4		Moist to wet brown fine SAND with trace of silt					
	5				ND			
	6							
	7		6'6"		ND			
	8		Wet brown fine SAND					
	9				ND			
	10		9'6"					
	11							
	12							
	13							
	14							
	15		Notes:					
	16		* Set 2" diameter PVC temporary well in boring with screen bottom at 8'6".					
	17		* Pulled at completion.					
	18							
	19							
	20		ND = None Detected					
	21							
	22							
	23							
	24							
	25							

TYPE OF SAMPLE
 D. - DISTURBED
 U.L. - UNDIST. LINER
 S.T. - SHELBY TUBE
 S.S. - SPLIT SPOON
 R.C. - ROCK CORE
 () - PENETROMETER

REMARKS:

Standard Penetration Test - Driving 2" OD Sampler 1' With
 140# Hammer Falling 30": Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 3 FT. 5 INS.
 G.W. ENCOUNTERED AT FT. INS.
 G.W. AFTER COMPLETION 4 FT. 2 INS.
 G.W. AFTER HRS. FT. INS.
 G.W. VOLUMES Heavy Cave-in at 4'2"



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JOB NO. 07-14031

SURFACE ELEV. _____ DATE 5-4-07

LOG OF SOIL
 BORING NO. 20

PROJECT Environmental Site Assessment

LOCATION Approximate 120-Acre Golf Course
 18601 Berg Road
 Detroit, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
			0'2" ASPHALT					
1			0'9" Moist discolored brown gravelly SAND, fill		ND			
2			1'8" Moist discolored brown silty fine SAND, fill					
3								
4			Moist to wet brown silty fine SAND					
5					ND			
6			5'6" Moist variegated silty CLAY					
7			7'0" Moist variegated silty CLAY		ND			
8								
9			Wet brown silty fine SAND					
10					ND			
11			10'4" Wet gray fine sandy SILT with clay seams					
12			11'6" Wet gray fine sandy SILT with clay seams		ND			
13			Moist blue silty CLAY with traces of sand and pebbles					
14			14'0" Moist blue silty CLAY with traces of sand and pebbles		ND			
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								

ND = None Detected

TYPE OF SAMPLE
 D. - DISTURBED
 U.L. - UNDIST. LINER
 S.T. - SHELBY TUBE
 S.S. - SPLIT SPOON
 R.C. - ROCK CORE
 () - PENETROMETER

REMARKS:

Standard Penetration Test - Driving 2" OD Sampler 1' With
 140# Hammer Falling 30". Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 4 FT. 0 INS.
 G.W. ENCOUNTERED AT 7 FT. 0 INS.
 G.W. AFTER COMPLETION 6 FT. 8 INS.
 G.W. AFTER HRS. FT. INS.
 G.W. VOLUMES Medium-Heavy Cave-in at 10'9"



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LOG OF SOIL
 BORING NO. 21

PROJECT Environmental Site Assessment

JOB NO. 07-14031

LOCATION Approximate 120-Acre Golf Course
18601 Berg Road
Detroit, Michigan

SURFACE ELEV. _____ DATE 5-4-07

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den WL P.C.F.	Unc. Comp. Strength PSF.	Str. %
			0'1" ASPHALT					
1			0'5" Moist discolored brown gravelly SAND, fill		ND			
2			Moist discolored brown silty fine SAND, fill					
3			3'0" Moist to wet brown silty fine SAND		ND			
4			4'1" Moist brown silty CLAY with sand streaks					
5			6'6" Wet brown silty fine SAND		ND			
6								
7								
8								
9								
10								
11			10'10" Moist brown silty CLAY		ND			
12			11'6" Moist blue silty CLAY with wet sand and silt seams					
13					ND			
14			13'8" Moist blue silty CLAY with traces of sand and pebbles					
15			14'0"					
16								
17								
18								
19								
20			ND = None Detected					
21								
22								
23								
24								
25								

TYPE OF SAMPLE
 D. - DISTURBED
 U.L. - UNDIST. LINER
 S.T. - SHELBY TUBE
 S.S. - SPLIT SPOON
 R.C. - ROCK CORE
 () - PENETROMETER

REMARKS:

Standard Penetration Test - Driving 2" OD Sampler 1' With
 140# Hammer Falling 30". Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 3 FT. 6 INS.
 G.W. ENCOUNTERED AT 6 FT. 6 INS.
 G.W. AFTER COMPLETION 7 FT. 2 INS.
 G.W. AFTER HRS. FT. INS.
 G.W. VOLUMES Medium-Heavy Cave-in at 7'2"



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LOG OF SOIL
 BORING NO. 22

PROJECT Environmental Site Assessment

JOB NO. 07-14031

LOCATION Approximate 120-Acre Golf Course
18601 Berg Road
Detroit, Michigan

SURFACE ELEV. _____ DATE 5-4-07

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Slr. %
			0'2" ASPHALT					
	1		0'10" Moist discolored brown gravelly SAND, fill		ND			
	2							
	3		Moist to wet brown silty fine SAND		ND			
	4							
	5				ND			
	6							
	7		6'4" Moist brown silty CLAY with sand streaks		ND			
	8							
	9		8'5" Wet brown silty fine SAND		ND			
	10							
	11				ND			
	12							
	13		12'1" Wet gray fine sandy SILT with clayey silt seams					
	14		12'10" Moist blue silty CLAY with traces of sand and pebbles		ND			
	15		14'0" ND = None Detected					
	16							
	17							
	18							
	19							
	20							
	21							
	22							
	23							
	24							
	25							

TYPE OF SAMPLE
 D. - DISTURBED
 U.L. - UNDIST. LINER
 S.T. - SHELBY TUBE
 S.S. - SPLIT SPOON
 R.C. - ROCK CORE
 () - PENETROMETER

REMARKS:
 Standard Penetration Test - Driving 2" OD Sampler 1' With
 140# Hammer Falling 30": Count Made at 6" Intervals

GROUND WATER OBSERVATIONS
 G.W. ENCOUNTERED AT 3 FT. 6 INS.
 G.W. ENCOUNTERED AT 8 FT. 5 INS.
 G.W. AFTER COMPLETION 5 FT. 8 INS.
 G.W. AFTER HRS. FT. INS.
 G.W. VOLUMES Heavy Cave-in at 5'8"



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LOG OF SOIL
 BORING NO. 23

PROJECT Environmental Site Assessment

JOB NO. 07-14031

LOCATION Approximate 120-Acre Golf Course
18601 Berg Road
Detroit, Michigan

SURFACE ELEV. _____ DATE 5-4-07

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 8"	PID Readings RAE Units	Dry Den WL P.C.F.	Unc. Comp. Strength PSF.	Str. %
			0'1" ASPHALT					
	1		0'9" Moist discolored brown gravelly SAND, fill		ND			
	2		1'8" Moist discolored brown silty fine SAND, fill					
	3				ND			
	4		Moist to wet brown silty fine SAND					
	5				ND			
	6		5'4" Moist brown silty CLAY with silt streaks					
	7				ND			
	8		7'5" Wet brown fine SAND					
	9				ND			
	10							
	11				ND			
	12		12'0"					
	13							
	14							
	15		Notes:					
	16		* Set 2" diameter PVC temporary well in boring with screen bottom at 10'.					
	17		* Pulled at completion.					
	18							
	19							
	20		ND = None Detected					
	21							
	22							
	23							
	24							
	25							

TYPE OF SAMPLE
 D. - DISTURBED
 U.L. - UNDIST. LINER
 S.T. - SHELBY TUBE
 S.S. - SPLIT SPOON
 R.C. - ROCK CORE
 () - PENETROMETER

REMARKS:

Standard Penetration Test - Driving 2" OD Sampler 1' With
 140# Hammer Falling 30". Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 4 FT. 2 INS.
 G.W. ENCOUNTERED AT 7 FT. 5 INS.
 G.W. AFTER COMPLETION 7 FT. 3 INS.
 G.W. AFTER HRS. FT. INS.
 G.W. VOLUMES Medium-Heavy Cave-in at 7'3"



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LOG OF SOIL
 BORING NO. 24

PROJECT Environmental Site Assessment

JOB NO. 07-14031

LOCATION Approximate 120-Acre Golf Course
18601 Berg Road
Detroit, Michigan

SURFACE ELEV. _____ DATE 5-4-07

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	P10 Readings RAE Units	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Sir. %
			0'4" Moist dark brown organic silty fine SAND, fill					
	1				ND			
	2		Moist discolored brown gravelly SAND, fill					
	3		2'3"		ND			
	4							
	5				ND			
	6							
	7		Moist to wet brown silty fine SAND		ND			
	8							
	9				ND			
	10							
	11				ND			
	12		11'6"					
	13		Moist blue silty CLAY with wet silt seams		ND			
	14		14'0"					
	15							
	16							
	17							
	18							
	19							
	20		ND = None Detected					
	21							
	22							
	23							
	24							
	25							

TYPE OF SAMPLE
 D. - DISTURBED
 U.L. - UNDIST. LINER
 S.T. - SHELBY TUBE
 S.S. - SPLIT SPOON
 R.C. - ROCK CORE
 () - PENETROMETER

REMARKS:
 Standard Penetration Test - Driving 2" OD Sampler 1' With
 140# Hammer Falling 30"; Count Made at 6" Intervals

GROUND WATER OBSERVATIONS
 G.W. ENCOUNTERED AT 5 FT. 6 INS.
 G.W. ENCOUNTERED AT FT. INS.
 G.W. AFTER COMPLETION 6 FT. 0 INS.
 G.W. AFTER HRS. FT. INS.
 G.W. VOLUMES Heavy Cave-in at 6'0"



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LOG OF SOIL
 BORING NO. 25

PROJECT Environmental Site Assessment

JOB NO. 07-14031

LOCATION Approximate 120-Acre Golf Course
 18601 Berg Road
 Detroit, Michigan

SURFACE ELEV. _____ DATE 5-4-07

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den WL P.C.F.	Unc. Comp. Strength PSF.	Str. %
	1		Moist dark brown organic silty fine sandy TOPSOIL with vegetation		ND			
	2		Moist dark brown silty fine SAND with organics or discolored streaks					
	3		Moist brown silty fine SAND		ND			
	4							
	5							
	6		Moist brown silty CLAY with sand streaks		ND			
	7							
	8		Wet brown silty fine SAND		ND			
	9							
	10		Wet brown fine SAND		ND			
	11							
	12		Moist blue silty CLAY with traces of sand and pebbles and wet silt seams					
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20							
	21							
	22							
	23							
	24							
	25							

ND = None Detected

- TYPE OF SAMPLE
 D. - DISTURBED
 U.L. - UNDIST. LINER
 S.T. - SHELBY TUBE
 S.S. - SPLIT SPOON
 R.C. - ROCK CORE
 () - PENETROMETER

REMARKS:

Standard Penetration Test - Driving 2" OD Sampler 1' With
 140# Hammer Falling 30". Count Made at 5" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 6 FT. 5 INS.
 G.W. ENCOUNTERED AT _____ FT. _____ INS.
 G.W. AFTER COMPLETION 7 FT. 3 INS.
 G.W. AFTER _____ HRS. _____ FT. _____ INS.
 G.W. VOLUMES Heavy Cave-in at 7'3"



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LOG OF SOIL
 BORING NO. 26

PROJECT Environmental Site Assessment

JOB NO. 07-14031

LOCATION Approximate 120-Acre Golf Course
18601 Berg Road
Detroit, Michigan

SURFACE ELEV. _____ DATE 5-4-07

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Slr. %
	1		0'7" Moist dark brown organic silty fine sandy TOPSOIL with vegetation, fill		ND			
	2		1'7" Moist discolored brown silty fine SAND, fill					
	3		Moist brown silty fine SAND		ND			
	4		3'4" Moist brown silty CLAY with sand streaks					
	5				ND			
	6							
	7		7'0"					
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20							
	21							
	22							
	23							
	24							
	25							

ND = None Detected

TYPE OF SAMPLE
 D. - DISTURBED
 U.L. - UNDIST. LINER
 S.T. - SHELBY TUBE
 S.S. - SPLIT SPOON
 R.C. - ROCK CORE
 () - PENETROMETER

REMARKS:

Standard Penetration Test - Driving 2" OD Sampler 1' With
 140# Hammer Falling 30"; Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT	FT.	INS.
G.W. ENCOUNTERED AT	FT.	INS.
G.W. AFTER COMPLETION	None	INS.
G.W. AFTER	HRS.	FT.
G.W. VOLUMES		INS.



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LOG OF SOIL
 BORING NO. 27

PROJECT Environmental Site Assessment

JOB NO. 07-14031

LOCATION Approximate 120-Acre Golf Course
18601 Berg Road
Detroit, Michigan

SURFACE ELEV. _____ DATE 5-4-07

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
			0'6" Moist dark brown fine sandy TOPSOIL with vegetation, fill		ND			
	1							
	2		1'8" Moist discolored brown fine SAND, fill					
	3							
	4		Moist discolored brown gravelly SAND with traces of clay and occasional asphalt pieces, fill		ND			
	5							
	6		4'8" Moist brown silty CLAY with wet sand streaks		ND			
	7		5'6" Wet brown silty fine SAND					
	8		6'10" Wet brown fine sandy SILT		ND			
	9		7'5" Wet gray fine sandy SILT					
	10		8'6" Wet gray fine sandy SILT with clay seam		ND			
	11		9'0"					
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20							
	21							
	22							
	23							
	24							
	25							

ND = None Detected

TYPE OF SAMPLE
 D. - DISTURBED
 U.L. - UNDIST. LINER
 S.T. - SHELBY TUBE
 S.S. - SPLIT SPOON
 R.C. - ROCK CORE
 () - PENETROMETER

REMARKS:

Standard Penetration Test - Driving 2" OD Sampler 1' With
 140# Hammer Falling 30"; Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 5 FT. 6 INS.
 G.W. ENCOUNTERED AT _____ FT. _____ INS.
 G.W. AFTER COMPLETION 4 FT. 7 INS.
 G.W. AFTER _____ HRS. _____ FT. _____ INS.
 G.W. VOLUMES Heavy Cave-in at 4'7"



McDOWELL & ASSOCIATES
 Geotechnical, Environmental, & Hydrogeologic Services
 21355 Hatcher Avenue • Ferndale, MI 48220
 Phone: (248) 399-2066 • Fax: (248) 399-2157

LOG OF SOIL
 BORING NO. 28

PROJECT Environmental Site Assessment

JOB NO. 07-14031

LOCATION Approximate 120-Acre Golf Course
 18601 Berg Road
 Detroit, Michigan

SURFACE ELEV. _____ DATE 5-4-07

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
	1		0'8" Moist dark brown organic silty fine sandy TOPSOIL with vegetation		ND			
	2		1'7" Moist dark brown silty fine SAND with organic streaks					
	3		Moist to wet brown silty fine SAND		ND			
	4		3'6" Moist brown silty CLAY with sand streaks		ND			
	5		5'7" Wet brown fine SAND		ND			
	6		7'6" Wet gray fine sandy SILT with clayey silt seams					
	7		8'7" Moist blue silty CLAY with traces of sand and pebbles and wet silt seams		ND			
	8		10'0"					
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20							
	21							
	22							
	23							
	24							
	25							

ND = None Detected

- TYPE OF SAMPLE
 D. - DISTURBED
 U.L. - UNDIST. LINER
 S.T. - SHELBY TUBE
 S.S. - SPLIT SPOON
 R.C. - ROCK CORE
 () - PENETROMETER

REMARKS:

Standard Penetration Test - Driving 2" OD Sampler 1' With 140# Hammer Falling 30". Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 2 FT. 10 INS.
 G.W. ENCOUNTERED AT 5 FT. 7 INS.
 G.W. AFTER COMPLETION 4 FT. 10 INS.
 G.W. AFTER HRS. FT. INS.
 G.W. VOLUMES Medium-Heavy Cave-in at 4'10"



McDOWELL & ASSOCIATES
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LOG OF SOIL
 BORING NO. 29

PROJECT Environmental Site Assessment

JOB NO. 07-14031

LOCATION Approximate 120-Acre Golf Course
18601 Berg Road
Detroit, Michigan

SURFACE ELEV. _____ DATE 5-4-07

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den Wt P.C.F.	Unc. Comp. Strength PSF.	Str. %
	1		0'5" Moist dark brown organic silty fine sandy TOPSOIL with vegetation		ND			
	2							
	3		Moist brown silty fine SAND		ND			
	4							
	5		4'3" Moist brown silty CLAY with silt streaks		ND			
	6							
	7		6'0" Wet gray fine sandy clayey SILT with clay seam					
	8		6'7" Wet brown fine SAND		ND			
	9							
	10		9'0"		ND			
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20		ND = None Detected					
	21							
	22							
	23							
	24							
	25							

TYPE OF SAMPLE
 D. - DISTURBED
 U.L. - UNDIST. LINER
 S.T. - SHELBY TUBE
 S.S. - SPLIT SPOON
 R.C. - ROCK CORE
 () - PENETROMETER

REMARKS:

Standard Penetration Test - Driving 2" OD Sampler 1' With
 140# Hammer Falling 30"; Count Made at 5" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 6 FT. 0 INS.
 G.W. ENCOUNTERED AT 6 FT. 7 INS.
 G.W. AFTER COMPLETION 6 FT. 5 INS.
 G.W. AFTER HRS. FT. INS.
 G.W. VOLUMES Heavy Cave-in at 6'5"



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LOG OF SOIL
 BORING NO. 30

PROJECT Environmental Site Assessment

JOB NO. 07-14031

LOCATION Approximate 120-Acre Golf Course
18601 Berg Road
Detroit, Michigan

SURFACE ELEV. _____ DATE 5-4-07

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
	1		0'8" Moist dark brown organic silty fine sandy TOPSOIL with vegetation		ND			
	2		Moist slightly discolored silty fine SAND					
	3				ND			
	4		Moist brown silty CLAY					
	5				ND			
	6		Moist brown silty CLAY with wet silt streaks					
	7				ND			
	8		Wet brown silty fine SAND					
	9				ND			
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20		ND = None Detected					
	21							
	22							
	23							
	24							
	25							

TYPE OF SAMPLE
 D. - DISTURBED
 U.L. - UNDIST. LINER
 S.T. - SHELBY TUBE
 S.S. - SPLIT SPOON
 R.C. - ROCK CORE
 () - PENETROMETER

REMARKS:
 Standard Penetration Test - Driving 2" OD Sampler 1' With
 140# Hammer Falling 30"; Count Made at 6" Intervals

GROUND WATER OBSERVATIONS
 G.W. ENCOUNTERED AT 6 FT. 0 INS.
 G.W. ENCOUNTERED AT FT. INS.
 G.W. AFTER COMPLETION 5 FT. 4 INS.
 G.W. AFTER HRS. FT. INS.
 G.W. VOLUMES Heavy Cave-in at 5'7"



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LOG OF SOIL
 BORING NO. 31

PROJECT Environmental Site Assessment

JOB NO. 07-14031

LOCATION Approximate 120-Acre Golf Course
 18601 Berg Road
 Detroit, Michigan

SURFACE ELEV. _____ DATE 5-4-07

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	PID Readings RAE Units	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
	1		Moist dark brown silty clayey fine SAND with vegetation, fill		ND			
	2		1'8" Moist brown silty CLAY with silt streaks					
	3							
	4							
	5		6'3" Wet brown silty fine SAND					
	6							
	7							
	8		9'0"					
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20							
	21							
	22							
	23							
	24							
	25							

<p>TYPE OF SAMPLE D. - DISTURBED U.L. - UNDIST. LINER S.T. - SHELBY TUBE S.S. - SPLIT SPOON R.C. - ROCK CORE () - PENETROMETER</p>	<p>REMARKS: Standard Penetration Test - Driving 2" OD Sampler 1' With 140# Hammer Falling 30"; Count Made at 6" Intervals</p>	<p>GROUND WATER OBSERVATIONS G.W. ENCOUNTERED AT 6 FT. 3 INS. G.W. ENCOUNTERED AT _____ FT. _____ INS. G.W. AFTER COMPLETION 6 FT. 2 INS. G.W. AFTER _____ HRS. _____ FT. _____ INS. G.W. VOLUMES Heavy Cave-in at 6'2"</p>
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Attachment V

Chemical Test Results with
Chain-of-Custody Documentation



Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 05/03/2007
Submit Date: 05/04/2007
Report Date: 05/14/2007

To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

BA Report Number: 92721
BA Sample ID: BN08452

Project Name: 07-14031
Project Number: 07-14031
Sample ID: 1W

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis						
Acetone	Not detected	ug/L	20	SW846 8260B	RG	05/11/2007
Acrylonitrile	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Benzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Bromobenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Bromochloromethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Bromodichloromethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Bromoform	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Bromomethane(Methyl Bromide)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
2-Butanone (MEK)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Carbon disulfide	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Carbon tetrachloride	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Chlorobenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Chloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Chloroform	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Chloromethane(Methyl Chloride)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2-Dibromo-3-Chloropropane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Dibromochloromethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2-Dibromoethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Dibromomethane(Methylene Bromide)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2-Dichlorobenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,3-Dichlorobenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,4-Dichlorobenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Dichlorodifluoromethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,1-Dichloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2-Dichloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,1-Dichloroethene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2-Dichloropropane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Diethyl ether	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007



Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 05/03/2007
Submit Date: 05/04/2007
Report Date: 05/14/2007

To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

BA Report Number: 92721

Project Name: 07-14031

BA Sample ID: BN08452

Project Number: 07-14031

Sample ID: 1W

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Diisopropyl Ether(DIPE)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Ethyl benzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Ethyltertiarybutylether(ETBE)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Hexachloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
2-Hexanone(Methyl Butyl Ketone)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Isopropylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Methyl iodide(Iodomethane)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Methyl(tert)butyl ether(MTBE)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
4-Methyl-2-pentanone(MIBK)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Methylene chloride	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
2-Methylnaphthalene	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Naphthalene	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
n-Butylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
n-Propylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
p-Isopropyl Toluene(p-Cymene)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
sec-Butylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Styrene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Tertiary Butyl Alcohol	Not detected	ug/L	50	SW846 8260B	RG	05/11/2007
tertiaryAmylmethylether(TAME)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
tertiaryButylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Tetrachloroethene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Tetrahydrofuran	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Toluene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
1,1,1-Trichloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,1,2-Trichloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007



Brighton Analytical, L.L.C.
 2105 Pless Drive
 Brighton, Michigan 48116
 Phone: (810) 229-7575 FAX: (810) 229-8650
 e-mail: bai-brighton@sbcglobal.net

Sample Date: 05/03/2007
 Submit Date: 05/04/2007
 Report Date: 05/14/2007

To: McDowell & Associates
 21355 Hatcher Ave.
 Ferndale, MI 48220

BA Report Number: 92721

Project Name: 07-14031

BA Sample ID: BN08452

Project Number: 07-14031

Sample ID: 1W

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Trichloroethene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Trichlorofluoromethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2,3-Trichloropropane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Vinyl chloride	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Xylenes(total)	Not detected	ug/L	3	SW846 8260B	RG	05/11/2007

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by:

Date:

WJG/psb
 5/14/07



Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 05/03/2007
Submit Date: 05/04/2007
Report Date: 05/14/2007

To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

BA Report Number: 92721
BA Sample ID: BN08453

Project Name: 07-14031
Project Number: 07-14031
Sample ID: 2W

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis						
Acetone	Not detected	ug/L	20	SW846 8260B	RG	05/11/2007
Acrylonitrile	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Benzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Bromobenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Bromochloromethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Bromodichloromethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Bromoform	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Bromomethane(Methyl Bromide)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
2-Butanone (MEK)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Carbon disulfide	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Carbon tetrachloride	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Chlorobenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Chloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Chloroform	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Chloromethane(Methyl Chloride)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2-Dibromo-3-Chloropropane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Dibromochloromethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2-Dibromoethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Dibromomethane(Methylene Bromide)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2-Dichlorobenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,3-Dichlorobenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,4-Dichlorobenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Dichlorodifluoromethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,1-Dichloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2-Dichloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,1-Dichloroethene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2-Dichloropropane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Diethyl ether	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007



Brighton Analytical, L.L.C.

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Brighton, Michigan 48116

Phone: (810) 229-7575 FAX: (810) 229-8650

e-mail: bai-brighton@sbeglobal.net

To: McDowell & Associates

21355 Hatcher Ave.

Ferndale, MI 48220

Sample Date: 05/03/2007

Submit Date: 05/04/2007

Report Date: 05/14/2007

BA Report Number: 92721

BA Sample ID: BN08453

Project Name: 07-14031

Project Number: 07-14031

Sample ID: 2W

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Diisopropyl Ether(DIPE)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Ethyl benzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Ethyltertiarybutylether(ETBE)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Hexachloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
2-Hexanone(Methyl Butyl Ketone)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Isopropylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Methyl iodide(Iodomethane)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Methyl(tert)butyl ether(MTBE)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
4-Methyl-2-pentanone(MIBK)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Methylene chloride	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
2-Methylnaphthalene	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Naphthalene	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
n-Butylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
n-Propylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
p-Isopropyl Toluene(p-Cymene)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
sec-Butylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Styrene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Tertiary Butyl Alcohol	Not detected	ug/L	50	SW846 8260B	RG	05/11/2007
tertiaryAmylmeylether(TAME)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
tertiaryButylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Tetrachloroethene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Tetrahydrofuran	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Toluene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
1,1,1-Trichloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,1,2-Trichloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007



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Sample Date: 05/03/2007
Submit Date: 05/04/2007
Report Date: 05/14/2007

To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

BA Report Number: 92721
BA Sample ID: BN08453

Project Name: 07-14031
Project Number: 07-14031
Sample ID: 2W

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Trichloroethene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Trichlorofluoromethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2,3-Trichloropropane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Vinyl chloride	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Xylenes(total)	Not detected	ug/L	3	SW846 8260B	RG	05/11/2007

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

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Date:

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05/14/07



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To: McDowell & Associates
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 Ferndale, MI 48220

Sample Date: 05/03/2007
 Submit Date: 05/04/2007
 Report Date: 05/14/2007

BA Report Number: 92721
 BA Sample ID: BN08454

Project Name: 07-14031
 Project Number: 07-14031
 Sample ID: 3

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
PNA Analysis						
Acenaphthene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Acenaphthylene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Anthracene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Benzo(a)anthracene	530	ug/Kg	330	SW846 8270C	RG	05/07/2007
Benzo(a)pyrene	480	ug/Kg	330	SW846 8270C	RG	05/07/2007
Benzo(b)fluoranthene	400	ug/Kg	330	SW846 8270C	RG	05/07/2007
Benzo(g,h,i)perylene	400	ug/Kg	330	SW846 8270C	RG	05/07/2007
Benzo(k)fluoranthene	520	ug/Kg	330	SW846 8270C	RG	05/07/2007
2-Chloronaphthalene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Chrysene	590	ug/Kg	330	SW846 8270C	RG	05/07/2007
Dibenzo(a,h)anthracene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Fluoranthene	890	ug/Kg	330	SW846 8270C	RG	05/07/2007
Fluorene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
2-Methylnaphthalene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Phenanthrene	850	ug/Kg	330	SW846 8270C	RG	05/07/2007
Pyrene	1400	ug/Kg	330	SW846 8270C	RG	05/07/2007
PNA solid GC/MS (extraction)	Extracted			3510/3550	LS	05/07/2007
Volatile Analysis						
Benzene	Not detected	ug/Kg	50	SW846 8021	BY	05/07/2007
Ethylbenzene	Not detected	ug/Kg	50	SW846 8021	BY	05/07/2007
Isopropylbenzene	Not detected	ug/Kg	50	SW846 8021	BY	05/07/2007
n-Propylbenzene	Not detected	ug/Kg	50	SW846 8021	BY	05/07/2007
Toluene	Not detected	ug/Kg	50	SW846 8021	BY	05/07/2007
1,2,3-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8021	BY	05/07/2007
1,2,4-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8021	BY	05/07/2007
1,3,5-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8021	BY	05/07/2007
Xylenes(total)	Not detected	ug/Kg	150	SW846 8021	BY	05/07/2007



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Sample Date: 05/03/2007
 Submit Date: 05/04/2007
 Report Date: 05/14/2007

To: McDowell & Associates
 21355 Hatcher Ave.
 Ferndale, MI 48220

BA Report Number: 92721
 BA Sample ID: BN08454

Project Name: 07-14031
 Project Number: 07-14031
 Sample ID: 3

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
EPA Method 5035 Methanol Preserv	Extracted			EPA 5035	MCD	05/03/2007
%Solid	78	%		ASTM D-2216	GW	05/07/2007

All soil results based on dry weight.

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

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Sample Date: 05/03/2007
 Submit Date: 05/04/2007
 Report Date: 05/11/2007

BA Report Number: 92721
 BA Sample ID: BN08455

Project Name: 07-14031
 Project Number: 07-14031
 Sample ID: 4

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Herbicide Analysis						
2,4-D	Not detected	ug/Kg	200	SW846 8151	BY	05/10/2007
Dicamba	Not detected	ug/Kg	50	SW846 8151	BY	05/10/2007
Dinoseb	Not detected	ug/Kg	20	SW846 8151	BY	05/10/2007
2,4,5-T	Not detected	ug/Kg	50	SW846 8151	BY	05/10/2007
2,4,5-TP(Silvex)	Not detected	ug/Kg	50	SW846 8151	BY	05/10/2007
Herbicide solid (extraction)	Extracted			8151/615	BY	05/08/2007
%Solid	85	%		ASTM D-2216	GW	05/07/2007

All soil results based on dry weight.

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

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Sample Date: 05/03/2007
 Submit Date: 05/04/2007
 Report Date: 05/11/2007

BA Report Number: 92721
 BA Sample ID: BN08456

Project Name: 07-14031
 Project Number: 07-14031
 Sample ID: 5

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Herbicide Analysis						
2,4-D	Not detected	ug/Kg	200	SW846 8151	BY	05/10/2007
Dicamba	Not detected	ug/Kg	50	SW846 8151	BY	05/10/2007
Dinoseb	Not detected	ug/Kg	20	SW846 8151	BY	05/10/2007
2,4,5-T	Not detected	ug/Kg	50	SW846 8151	BY	05/10/2007
2,4,5-TP(Silvex)	Not detected	ug/Kg	50	SW846 8151	BY	05/10/2007
Herbicide solid (extraction)	Extracted			8151/615	BY	05/08/2007
%Solid	79	%		ASTM D-2216	GW	05/07/2007

All soil results based on dry weight.

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

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Sample Date: 05/03/2007
Submit Date: 05/04/2007
Report Date: 05/11/2007

BA Report Number: 92721
BA Sample ID: BN08457

Project Name: 07-14031
Project Number: 07-14031
Sample ID: 6

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Total Metal Analysis						
Total Cadmium	230	ug/Kg	50	SW846 6020	GW	05/08/2007
Total Chromium	5600	ug/Kg	500	SW846 6020	GW	05/08/2007
Total Lead	4000	ug/Kg	1000	SW846 6020	GW	05/08/2007
Metal Soil (digestion)	Digested			3050	PR	05/08/2007
PCB Analysis						
ARO 1016	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
ARO 1221	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
ARO 1232	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
ARO 1242	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
ARO 1248	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
ARO 1254	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
ARO 1260	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
ARO 1262	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
ARO 1268	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
Total PCB	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
PCB solid extraction	Extracted			3510/3550	LS	05/07/2007
PNA Analysis						
Acenaphthene	Not detected	ug/Kg	1700	SW846 8270C	RG	05/07/2007
Acenaphthylene	Not detected	ug/Kg	1700	SW846 8270C	RG	05/07/2007
Anthracene	Not detected	ug/Kg	1700	SW846 8270C	RG	05/07/2007
Benzo(a)anthracene	Not detected	ug/Kg	1700	SW846 8270C	RG	05/07/2007
Benzo(a)pyrene	Not detected	ug/Kg	1700	SW846 8270C	RG	05/07/2007
Benzo(b)fluoranthene	Not detected	ug/Kg	1700	SW846 8270C	RG	05/07/2007
Benzo(g,h,i)perylene	Not detected	ug/Kg	1700	SW846 8270C	RG	05/07/2007
Benzo(k)fluoranthene	Not detected	ug/Kg	1700	SW846 8270C	RG	05/07/2007
2-Chloronaphthalene	Not detected	ug/Kg	1700	SW846 8270C	RG	05/07/2007
Chrysene	Not detected	ug/Kg	1700	SW846 8270C	RG	05/07/2007
Dibenzo(a,h)anthracene	Not detected	ug/Kg	1700	SW846 8270C	RG	05/07/2007



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Sample Date: 05/03/2007
Submit Date: 05/04/2007
Report Date: 05/11/2007

BA Report Number: 92721
BA Sample ID: BN08457

Project Name: 07-14031
Project Number: 07-14031
Sample ID: 6

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Fluoranthene	Not detected	ug/Kg	1700	SW846 8270C	RG	05/07/2007
Fluorene	Not detected	ug/Kg	1700	SW846 8270C	RG	05/07/2007
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	1700	SW846 8270C	RG	05/07/2007
2-Methylnaphthalene	Not detected	ug/Kg	1700	SW846 8270C	RG	05/07/2007
Phenanthrene	Not detected	ug/Kg	1700	SW846 8270C	RG	05/07/2007
Pyrene	Not detected	ug/Kg	1700	SW846 8270C	RG	05/07/2007
PNA solid GC/MS (extraction)	Extracted			3510/3550	LS	05/07/2007

Volatile Analysis(Methanol Preserved)

Acetone	Not detected	ug/Kg	750	SW846 8260B	CW	05/09/2007
Acrylonitrile	Not detected	ug/Kg	100	SW846 8260B	CW	05/09/2007
Benzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Bromobenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Bromochloromethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Bromodichloromethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Bromoform	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Bromomethane(Methyl bromide)	Not detected	ug/Kg	200	SW846 8260B	CW	05/09/2007
2-Butanone (MEK)	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Carbon disulfide	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Carbon tetrachloride	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Chlorobenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Chloroethane	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Chloroform	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Chloromethane(Methyl chloride)	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
cis-1,2-Dichloroethene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
cis-1,3-Dichloropropene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,2-Dibromo-3-Chloropropane	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Dibromochloromethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,2-Dibromoethane(Ethylene dibromide)	Not detected	ug/Kg	20	SW846 8260B	CW	05/09/2007
Dibromomethane(Methylene bromide)	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,2-Dichlorobenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,3-Dichlorobenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007



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Sample Date: 05/03/2007

Submit Date: 05/04/2007

Report Date: 05/11/2007

BA Report Number: 92721

Project Name: 07-14031

BA Sample ID: BN08457

Project Number: 07-14031

Sample ID: 6

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dichlorobenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Dichlorodifluoromethane	Not detected	ug/Kg	100	SW846 8260B	CW	05/09/2007
1,1-Dichloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,2-Dichloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,1-Dichloroethene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,2-Dichloropropane	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Diethyl ether	Not detected	ug/Kg	200	SW846 8260B	CW	05/09/2007
Diisopropyl Ether	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Ethyl benzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Ethyltertiary butylether	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Hexachloroethane	Not detected	ug/Kg	100	SW846 8260B	CW	05/09/2007
2-Hexanone(Methyl Butyl Ketone)	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Isopropylbenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Methyl iodide(Iodomethane)	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Methyl(tert)butyl ether(MTBE)	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
4-Methyl-2-pentanone(MIBK)	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Methylene chloride	Not detected	ug/Kg	100	SW846 8260B	CW	05/09/2007
2-Methylnaphthalene	870	ug/Kg	250	SW846 8260B	CW	05/09/2007
Naphthalene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
n-Butylbenzene	500	ug/Kg	50	SW846 8260B	CW	05/09/2007
n-Propylbenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
p-Isopropyl Toluene(p-Cymene)	530	ug/Kg	50	SW846 8260B	CW	05/09/2007
sec-Butylbenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Styrene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
tertiary Amylmethylether	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Tertiary Butyl Alcohol	Not detected	ug/Kg	2500	SW846 8260B	CW	05/09/2007
tertiary Butylbenzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
1,1,1,2-Tetrachloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,1,2,2-Tetrachloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Tetrachloroethene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Tetrahydrofuran	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Toluene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007



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Report Date: 05/11/2007

BA Report Number: 92721

BA Sample ID: BN08457

Project Name: 07-14031

Project Number: 07-14031

Sample ID: 6

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
trans-1,2-Dichloroethene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
trans-1,3-Dichloropropene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
trans-1,4-Dichloro-2-butene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,2,3-Trichlorobenzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
1,2,4-Trichlorobenzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
1,1,1-Trichloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,1,2-Trichloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Trichloroethene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Trichlorofluoromethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,2,3-Trichloropropane	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,2,3-Trimethylbenzene	200	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,2,4-Trimethylbenzene	130	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,3,5-Trimethylbenzene	280	ug/Kg	50	SW846 8260B	CW	05/09/2007
Vinyl chloride	Not detected	ug/Kg	40	SW846 8260B	CW	05/09/2007
Xylenes	Not detected	ug/Kg	150	SW846 8260B	CW	05/09/2007
EPA Method 5035 Methanol Preserv	Extracted			EPA 5035	MCD	05/03/2007
%Solid	89	%		ASTM D-2216	GW	05/07/2007

All soil results based on dry weight.

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Elevated semi-volatile dl due to sample matrix.

Released by:

Date:

W. J. ...
05/14/07



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Sample Date: 05/03/2007

Submit Date: 05/04/2007

Report Date: 05/11/2007

To: McDowell & Associates

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BA Report Number: 92721

BA Sample ID: BN08458

Project Name: 07-14031

Project Number: 07-14031

Sample ID: 6-Dup

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Total Metal Analysis						
Total Cadmium	380	ug/Kg	50	SW846 6020	GW	05/08/2007
Total Chromium	160000	ug/Kg	500	SW846 6020	GW	05/08/2007
Total Lead	34000	ug/Kg	1000	SW846 6020	GW	05/08/2007
Metal Soil (digestion)	Digested			3050	PR	05/08/2007
PCB Analysis						
ARO 1016	Not detected	ug/Kg	410	SW846 8082	BY	05/08/2007
ARO 1221	Not detected	ug/Kg	410	SW846 8082	BY	05/08/2007
ARO 1232	Not detected	ug/Kg	410	SW846 8082	BY	05/08/2007
ARO 1242	Not detected	ug/Kg	410	SW846 8082	BY	05/08/2007
ARO 1248	Not detected	ug/Kg	410	SW846 8082	BY	05/08/2007
ARO 1254	Not detected	ug/Kg	410	SW846 8082	BY	05/08/2007
ARO 1260	Not detected	ug/Kg	410	SW846 8082	BY	05/08/2007
ARO 1262	Not detected	ug/Kg	410	SW846 8082	BY	05/08/2007
ARO 1268	Not detected	ug/Kg	410	SW846 8082	BY	05/08/2007
Total PCB	Not detected	ug/Kg	410	SW846 8082	BY	05/08/2007
PCB solid extraction	Extracted			3510/3550	LS	05/07/2007
PNA Analysis						
Acenaphthene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Acenaphthylene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Anthracene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Benzo(a)anthracene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Benzo(a)pyrene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Benzo(b)fluoranthene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Benzo(g,h,i)perylene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Benzo(k)fluoranthene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
2-Chloronaphthalene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Chrysene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Dibenzo(a,h)anthracene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007



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To: McDowell & Associates

21355 Hatcher Ave.

Ferndale, MI 48220

Sample Date: 05/03/2007

Submit Date: 05/04/2007

Report Date: 05/11/2007

BA Report Number: 92721

Project Name: 07-14031

BA Sample ID: BN08458

Project Number: 07-14031

Sample ID: 6-Dup

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Fluoranthene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Fluorene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
2-Methylnaphthalene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Phenanthrene	1200	ug/Kg	990	SW846 8270C	RG	05/07/2007
Pyrene	2000	ug/Kg	990	SW846 8270C	RG	05/07/2007
PNA solid GC/MS (extraction)	Extracted			3510/3550	LS	05/07/2007

Volatile Analysis(Methanol Preserved)

Acetone	Not detected	ug/Kg	750	SW846 8260B	CW	05/09/2007
Acrylonitrile	Not detected	ug/Kg	100	SW846 8260B	CW	05/09/2007
Benzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Bromobenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Bromochloromethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Bromodichloromethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Bromoform	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Bromomethane(Methyl bromide)	Not detected	ug/Kg	200	SW846 8260B	CW	05/09/2007
2-Butanone (MEK)	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Carbon disulfide	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Carbon tetrachloride	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Chlorobenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Chloroethane	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Chloroform	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Chloromethane(Methyl chloride)	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
cis-1,2-Dichloroethene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
cis-1,3-Dichloropropene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,2-Dibromo-3-Chloropropane	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Dibromochloromethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,2-Dibromoethane(Ethylene dibromide)	Not detected	ug/Kg	20	SW846 8260B	CW	05/09/2007
Dibromomethane(Methylene bromide)	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,2-Dichlorobenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,3-Dichlorobenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007



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Submit Date: 05/04/2007
Report Date: 05/11/2007

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Ferndale, MI 48220

BA Report Number: 92721
BA Sample ID: BN08458

Project Name: 07-14031
Project Number: 07-14031
Sample ID: 6-Dup

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dichlorobenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Dichlorodifluoromethane	Not detected	ug/Kg	100	SW846 8260B	CW	05/09/2007
1,1-Dichloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,2-Dichloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,1-Dichloroethene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,2-Dichloropropane	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Diethyl ether	Not detected	ug/Kg	200	SW846 8260B	CW	05/09/2007
Diisopropyl Ether	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Ethyl benzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Ethyltertiary butylether	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Hexachloroethane	Not detected	ug/Kg	100	SW846 8260B	CW	05/09/2007
2-Hexanone(Methyl Butyl Ketone)	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Isopropylbenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Methyl iodide(Iodomethane)	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Methyl(tert)butyl ether(MTBE)	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
4-Methyl-2-pentanone(MIBK)	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Methylene chloride	Not detected	ug/Kg	100	SW846 8260B	CW	05/09/2007
2-Methylnaphthalene	1800	ug/Kg	250	SW846 8260B	CW	05/09/2007
Naphthalene	270	ug/Kg	250	SW846 8260B	CW	05/09/2007
n-Butylbenzene	310	ug/Kg	50	SW846 8260B	CW	05/09/2007
n-Propylbenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
p-Isopropyl Toluene(p-Cymene)	170	ug/Kg	50	SW846 8260B	CW	05/09/2007
sec-Butylbenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Styrene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
tertiary Amylmethylether	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Tertiary Butyl Alcohol	Not detected	ug/Kg	2500	SW846 8260B	CW	05/09/2007
tertiary Butylbenzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
1,1,1,2-Tetrachloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,1,2,2-Tetrachloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Tetrachloroethene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Tetrahydrofuran	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Toluene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007



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Sample Date: 05/03/2007
Submit Date: 05/04/2007
Report Date: 05/11/2007

BA Report Number: 92721
BA Sample ID: BN08458

Project Name: 07-14031
Project Number: 07-14031
Sample ID: 6-Dup

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
trans-1,2-Dichloroethene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
trans-1,3-Dichloropropene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
trans-1,4-Dichloro-2-butene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,2,3-Trichlorobenzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
1,2,4-Trichlorobenzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
1,1,1-Trichloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,1,2-Trichloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Trichloroethene	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
Trichlorofluoromethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,2,3-Trichloropropane	Not detected	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,2,3-Trimethylbenzene	230	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,2,4-Trimethylbenzene	230	ug/Kg	50	SW846 8260B	CW	05/09/2007
1,3,5-Trimethylbenzene	180	ug/Kg	50	SW846 8260B	CW	05/09/2007
Vinyl chloride	Not detected	ug/Kg	40	SW846 8260B	CW	05/09/2007
Xylenes	Not detected	ug/Kg	150	SW846 8260B	CW	05/09/2007
EPA Method 5035 Methanol Preserv	Extracted			EPA 5035	MCD	05/03/2007
%Solid	91	%		ASTM D-2216	GW	05/07/2007

All soil results based on dry weight.

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Elevated PCB & semi-volatile dl due to sample matrix.

Released by:
Date:



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Sample Date: 05/03/2007
Submit Date: 05/04/2007
Report Date: 05/08/2007

To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

BA Report Number: 92721

BA Sample ID: BN08459

Project Name: 07-14031

Project Number: 07-14031

Sample ID: MeOH Blank

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis(Methanol Preserved)						
Acetone	Not detected	ug/Kg	750	SW846 8260B	CW	05/07/2007
Acrylonitrile	Not detected	ug/Kg	100	SW846 8260B	CW	05/07/2007
Benzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Bromobenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Bromochloromethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Bromodichloromethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Bromoform	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Bromomethane(Methyl bromide)	Not detected	ug/Kg	200	SW846 8260B	CW	05/07/2007
2-Butanone (MEK)	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Carbon disulfide	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Carbon tetrachloride	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Chlorobenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Chloroethane	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Chloroform	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Chloromethane(Methyl chloride)	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
cis-1,2-Dichloroethene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
cis-1,3-Dichloropropene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,2-Dibromo-3-Chloropropane	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Dibromochloromethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,2-Dibromoethane(Ethylene dibromide)	Not detected	ug/Kg	20	SW846 8260B	CW	05/07/2007
Dibromomethane(Methylene bromide)	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,2-Dichlorobenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,3-Dichlorobenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,4-Dichlorobenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Dichlorodifluoromethane	Not detected	ug/Kg	100	SW846 8260B	CW	05/07/2007
1,1-Dichloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,2-Dichloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,1-Dichloroethene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,2-Dichloropropane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Diethyl ether	Not detected	ug/Kg	200	SW846 8260B	CW	05/07/2007



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Sample Date: 05/03/2007
Submit Date: 05/04/2007
Report Date: 05/08/2007

To: McDowell & Associates
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Ferndale, MI 48220

BA Report Number: 92721
BA Sample ID: BN08459

Project Name: 07-14031
Project Number: 07-14031
Sample ID: MeOH Blank

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Diisopropyl Ether	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Ethyl benzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Ethyltertiary butylether	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Hexachloroethane	Not detected	ug/Kg	100	SW846 8260B	CW	05/07/2007
2-Hexanone(Methyl Butyl Ketone)	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Isopropylbenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Methyl iodide(Iodomethane)	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Methyl(tert)butyl ether(MTBE)	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
4-Methyl-2-pentanone(MIBK)	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Methylene chloride	Not detected	ug/Kg	100	SW846 8260B	CW	05/07/2007
2-Methylnaphthalene	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Naphthalene	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
n-Butylbenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
n-Propylbenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
p-Isopropyl Toluene(p-Cymene)	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
sec-Butylbenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Styrene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
tertiary Amylmethylether	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Tertiary Butyl Alcohol	Not detected	ug/Kg	2500	SW846 8260B	CW	05/07/2007
tertiary Butylbenzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
1,1,1,2-Tetrachloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,1,2,2-Tetrachloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Tetrachloroethene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Tetrahydrofuran	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Toluene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
trans-1,2-Dichloroethene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
trans-1,3-Dichloropropene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
trans-1,4-Dichloro-2-butene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,2,3-Trichlorobenzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
1,2,4-Trichlorobenzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
1,1,1-Trichloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,1,2-Trichloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007



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Sample Date: 05/03/2007
Submit Date: 05/04/2007
Report Date: 05/14/2007

BA Report Number: 92721
BA Sample ID: BN08460

Project Name: 07-14031
Project Number: 07-14031
Sample ID: Trip Blank

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis						
Acetone	Not detected	ug/L	20	SW846 8260B	RG	05/11/2007
Acrylonitrile	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Benzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Bromobenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Bromochloromethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Bromodichloromethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Bromoform	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Bromomethane(Methyl Bromide)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
2-Butanone (MEK)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Carbon disulfide	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Carbon tetrachloride	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Chlorobenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Chloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Chloroform	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Chloromethane(Methyl Chloride)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2-Dibromo-3-Chloropropane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Dibromochloromethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2-Dibromoethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Dibromomethane(Methylene Bromide)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2-Dichlorobenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,3-Dichlorobenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,4-Dichlorobenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Dichlorodifluoromethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,1-Dichloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2-Dichloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,1-Dichloroethene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2-Dichloropropane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Diethyl ether	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007



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Sample Date: 05/03/2007

Submit Date: 05/04/2007

Report Date: 05/14/2007

BA Report Number: 92721

BA Sample ID: BN08460

Project Name: 07-14031

Project Number: 07-14031

Sample ID: Trip Blank

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Diisopropyl Ether(DIPE)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Ethyl benzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Ethyltertiarybutylether(ETBE)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Hexachloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
2-Hexanone(Methyl Butyl Ketone)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Isopropylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Methyl iodide(Iodomethane)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Methyl(tert)butyl ether(MTBE)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
4-Methyl-2-pentanone(MIBK)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Methylene chloride	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
2-Methylnaphthalene	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Naphthalene	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
n-Butylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
n-Propylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
p-Isopropyl Toluene(p-Cymene)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
sec-Butylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Styrene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Tertiary Butyl Alcohol	Not detected	ug/L	50	SW846 8260B	RG	05/11/2007
tertiaryAmylmeylether(TAME)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
tertiaryButylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Tetrachloroethene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Tetrahydrofuran	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Toluene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
1,1,1-Trichloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,1,2-Trichloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007



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To: McDowell & Associates

21355 Hatcher Ave.

Ferndale, MI 48220

Sample Date: 05/03/2007

Submit Date: 05/04/2007

Report Date: 05/14/2007

BA Report Number: 92721

BA Sample ID: BN08460

Project Name: 07-14031

Project Number: 07-14031

Sample ID: Trip Blank

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Trichloroethene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Trichlorofluoromethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2,3-Trichloropropane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Vinyl chloride	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Xylenes(total)	Not detected	ug/L	3	SW846 8260B	RG	05/11/2007

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by:

Date:

WJ Topol
05/14/07



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To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

Sample Date: 05/03/2007
Submit Date: 05/04/2007
Report Date: 05/14/2007

BA Report Number: 92721
BA Sample ID: BN08461

Project Name: 07-14031
Project Number: 07-14031
Sample ID: Field Blank

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis						
Acetone	Not detected	ug/L	20	SW846 8260B	RG	05/11/2007
Acrylonitrile	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Benzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Bromobenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Bromochloromethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Bromodichloromethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Bromoform	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Bromomethane(Methyl Bromide)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
2-Butanone (MEK)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Carbon disulfide	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Carbon tetrachloride	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Chlorobenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Chloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Chloroform	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Chloromethane(Methyl Chloride)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2-Dibromo-3-Chloropropane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Dibromochloromethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2-Dibromoethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Dibromomethane(Methylene Bromide)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2-Dichlorobenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,3-Dichlorobenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,4-Dichlorobenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Dichlorodifluoromethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,1-Dichloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2-Dichloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,1-Dichloroethene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2-Dichloropropane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Diethyl ether	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007



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To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

Sample Date: 05/03/2007
Submit Date: 05/04/2007
Report Date: 05/14/2007

BA Report Number: 92721
BA Sample ID: BN08461

Project Name: 07-14031
Project Number: 07-14031
Sample ID: Field Blank

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Diisopropyl Ether(DIPE)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Ethyl benzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Ethyltertiarybutylether(ETBE)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Hexachloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
2-Hexanone(Methyl Butyl Ketone)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Isopropylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Methyl iodide(Iodomethane)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Methyl(tert)butyl ether(MTBE)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
4-Methyl-2-pentanone(MIBK)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Methylene chloride	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
2-Methylnaphthalene	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Naphthalene	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
n-Butylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
n-Propylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
p-Isopropyl Toluene(p-Cymene)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
sec-Butylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Styrene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Tertiary Butyl Alcohol	Not detected	ug/L	50	SW846 8260B	RG	05/11/2007
tertiaryAmylmeylether(TAME)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
tertiaryButylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Tetrachloroethene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Tetrahydrofuran	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Toluene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
1,1,1-Trichloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,1,2-Trichloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007



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To: McDowell & Associates

21355 Hatcher Ave.

Ferndale, MI 48220

Sample Date: 05/03/2007

Submit Date: 05/04/2007

Report Date: 05/14/2007

BA Report Number: 92721

BA Sample ID: BN08461

Project Name: 07-14031

Project Number: 07-14031

Sample ID: Field Blank

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Trichloroethene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Trichlorofluoromethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2,3-Trichloropropane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Vinyl chloride	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Xylenes(total)	Not detected	ug/L	3	SW846 8260B	RG	05/11/2007

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by:

Date:

W. J. Powell
5/14/07



Brighton Analytical, L.L.C.
 2105 Pless Drive
 Brighton, MI 48114
 Phone: 810-229-7575
 Fax: 810-229-8650

COMPANY NAME: McDowell & Associates
 PROJECT NAME: 07-14031
 PROJECT NUMBER: 07-14031
 P. O. NUMBER:

REQUESTED TURNAROUND: (circle one)
 Rush: 1 3 business days (verify with lab & specify date needed)
 Expedited: 5 business days
 Standard: no business days

HRUSH, approved by: _____
 Sampling Date: 9/3/07

Brighton ID #	Sample Description	Time	Date
8452	1W		9/3/07
2) 53	2W		
3) 54	3		
4) 55	4		
5) 56	5		
6) 57	6		
7) 58	6DWP		
8) 59	meth blank		
9) 60	Trip Blank		
10) 61	Field Blank		
11)			

Container Type & Quantity

VOA'S (R) (S) (V) (Z)	1
HDPE UNPRESERVED	1
HDPE HNO ₃	
HDPE H ₂ SO ₄	
HDPE NaOH	
AMBER	
GLASS H ₂ SO ₄	
GLASS, NO PRESERVATIVE	
Method Preserved (Field or Lab Preserved)	

Analysis Requested/Method

Sample Matrix	FOR DISSOLVED METALS (L) LAB TO FILTER (F) FIELD FILTERED	herbicides	BTEX/TMB	PVAs	VOCs	PCBs	Pb, Cd, Cr
L		X	X				
L			X				
S		X					
S			X				
S		X					
S			X				
M				X			
L					X		
L						X	

BA PROJECT #: 9274

ABBREVIATIONS FOR MATRIX
 S = Solid
 L = Liquid
 DW = Drinking H₂O
 WW = Wastewater
 O = Oil
 P = Wipe
 A = Air (Tedlar Bag)
 F = Filter
 T = Tube
 M = Methanol

REPORT RESULTS TO:
McDowell & Associates
via email
 Attn: Den Lagerborn
 PHONE:
 FAX:

Sample received within holding time? yes no
 For TCLP ONLY - Federal Limits Other
 Samples intact: yes no (if no, see below)
 Note samples if not intact:
 Headspace/bubbles in VOA'S? yes no n/a
 Sample containers and COC match? yes no

Comments:
 Temperature of Samples °C: 7

Please fill out the Chain of Custody completely and review. Incorrect or incomplete information will result in a "hold" on all analyses.

Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:
1	<u>Den Lagerborn</u>	<u>Den Lagerborn</u>	<u>9/7/07</u>	<u>1015</u>	3				
2	<u>Den Lagerborn</u>	<u>Den Lagerborn</u>	<u>9/11/07</u>	<u>1500</u>	4				

STANDARD FOR E035 (2)



Brighton Analytical, L.L.C.
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Sample Date: 05/04/2007
Submit Date: 05/04/2007
Report Date: 05/08/2007

To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

BA Report Number: 92720

Project Name: 07-14031

BA Sample ID: BN08443

Project Number: 07-14031

Sample ID: MeOH Blk #2

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis(Methanol Preserved)						
Acetone	Not detected	ug/Kg	750	SW846 8260B	CW	05/07/2007
Acrylonitrile	Not detected	ug/Kg	100	SW846 8260B	CW	05/07/2007
Benzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Bromobenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Bromochloromethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Bromodichloromethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Bromoform	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Bromomethane(Methyl bromide)	Not detected	ug/Kg	200	SW846 8260B	CW	05/07/2007
2-Butanone (MEK)	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Carbon disulfide	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Carbon tetrachloride	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Chlorobenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Chloroethane	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Chloroform	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Chloromethane(Methyl chloride)	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
cis-1,2-Dichloroethene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
cis-1,3-Dichloropropene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,2-Dibromo-3-Chloropropane	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Dibromochloromethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,2-Dibromoethane(Ethylene dibromide)	Not detected	ug/Kg	20	SW846 8260B	CW	05/07/2007
Dibromomethane(Methylene bromide)	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,2-Dichlorobenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,3-Dichlorobenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,4-Dichlorobenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Dichlorodifluoromethane	Not detected	ug/Kg	100	SW846 8260B	CW	05/07/2007
1,1-Dichloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,2-Dichloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,1-Dichloroethene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,2-Dichloropropane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007



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To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

Sample Date: 05/04/2007
Submit Date: 05/04/2007
Report Date: 05/08/2007

BA Report Number: 92720
BA Sample ID: BN08443

Project Name: 07-14031
Project Number: 07-14031
Sample ID: MeOH Blk #2

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Diethyl ether	Not detected	ug/Kg	200	SW846 8260B	CW	05/07/2007
Diisopropyl Ether	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Ethyl benzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Ethyltertiary butylether	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Hexachloroethane	Not detected	ug/Kg	100	SW846 8260B	CW	05/07/2007
2-Hexanone(Methyl Butyl Ketone)	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Isopropylbenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Methyl iodide(Iodomethane)	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Methyl(tert)butyl ether(MTBE)	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
4-Methyl-2-pentanone(MIBK)	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Methylene chloride	Not detected	ug/Kg	100	SW846 8260B	CW	05/07/2007
2-Methylnaphthalene	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Naphthalene	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
n-Butylbenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
n-Propylbenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
p-Isopropyl Toluene(p-Cymene)	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
sec-Butylbenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Styrene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
tertiary Amylmethylether	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Tertiary Butyl Alcohol	Not detected	ug/Kg	2500	SW846 8260B	CW	05/07/2007
tertiary Butylbenzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
1,1,1,2-Tetrachloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,1,2,2-Tetrachloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Tetrachloroethene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Tetrahydrofuran	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Toluene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
trans-1,2-Dichloroethene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
trans-1,3-Dichloropropene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
trans-1,4-Dichloro-2-butene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,2,3-Trichlorobenzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
1,2,4-Trichlorobenzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
1,1,1-Trichloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007



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To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

Sample Date: 05/04/2007
Submit Date: 05/04/2007
Report Date: 05/08/2007

BA Report Number: 92720
BA Sample ID: BN08443

Project Name: 07-14031
Project Number: 07-14031
Sample ID: MeOH Blk #2

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,1,2-Trichloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Trichloroethene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Trichlorofluoromethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,2,3-Trichloropropane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,2,3-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,2,4-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,3,5-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Vinyl chloride	Not detected	ug/Kg	40	SW846 8260B	CW	05/07/2007
Xylenes	Not detected	ug/Kg	150	SW846 8260B	CW	05/07/2007

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by:

Date:

utiqaw
05/14/07



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Sample Date: 05/04/2007
 Submit Date: 05/04/2007
 Report Date: 05/14/2007

To: McDowell & Associates
 21355 Hatcher Ave.
 Ferndale, MI 48220

BA Report Number: 92720
 BA Sample ID: BN08444

Project Name: 07-14031
 Project Number: 07-14031
 Sample ID: Field Blk #2

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
PNA Analysis						
Acenaphthene	Not detected	ug/L	5	EPA 625	RG	05/07/2007
Acenaphthylene	Not detected	ug/L	5	EPA 625	RG	05/07/2007
Anthracene	Not detected	ug/L	5	EPA 625	RG	05/07/2007
Benzo(a)anthracene	Not detected	ug/L	1	EPA 625	RG	05/07/2007
Benzo(a)pyrene	Not detected	ug/L	1	EPA 625	RG	05/07/2007
Benzo(b)fluoranthene	Not detected	ug/L	1	EPA 625	RG	05/07/2007
Benzo(g,h,i)perylene	Not detected	ug/L	1	EPA 625	RG	05/07/2007
Benzo(k)fluoranthene	Not detected	ug/L	1	EPA 625	RG	05/07/2007
2-Chloronaphthalene	Not detected	ug/L	5	EPA 625	RG	05/07/2007
Chrysene	Not detected	ug/L	1	EPA 625	RG	05/07/2007
Dibenzo(a,h)anthracene	Not detected	ug/L	2	EPA 625	RG	05/07/2007
Fluoranthene	Not detected	ug/L	1	EPA 625	RG	05/07/2007
Fluorene	Not detected	ug/L	5	EPA 625	RG	05/07/2007
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	EPA 625	RG	05/07/2007
2-Methylnaphthalene	Not detected	ug/L	5	EPA 625	RG	05/07/2007
Phenanthrene	Not detected	ug/L	2	EPA 625	RG	05/07/2007
Pyrene	Not detected	ug/L	5	EPA 625	RG	05/07/2007
PNA liquid GC/MS (extraction)	Extracted			3510/3550	LS	05/07/2007
Volatile Analysis						
Acetone	Not detected	ug/L	20	SW846 8260B	RG	05/11/2007
Acrylonitrile	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Benzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Bromobenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Bromochloromethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Bromodichloromethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Bromoform	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Bromomethane(Methyl Bromide)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
2-Butanone (MEK)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007



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To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

Sample Date: 05/04/2007
Submit Date: 05/04/2007
Report Date: 05/14/2007

BA Report Number: 92720
BA Sample ID: BN08444

Project Name: 07-14031
Project Number: 07-14031
Sample ID: Field Blk #2

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Carbon disulfide	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Carbon tetrachloride	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Chlorobenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Chloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Chloroform	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Chloromethane(Methyl Chloride)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2-Dibromo-3-Chloropropane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Dibromochloromethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2-Dibromoethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Dibromomethane(Methylene Bromide)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2-Dichlorobenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,3-Dichlorobenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,4-Dichlorobenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Dichlorodifluoromethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,1-Dichloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2-Dichloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,1-Dichloroethene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2-Dichloropropane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Diethyl ether	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Diisopropyl Ether(DIPE)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Ethyl benzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Ethyltertiarybutylether(ETBE)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Hexachloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
2-Hexanone(Methyl Butyl Ketone)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Isopropylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Methyl iodide(Iodomethane)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Methyl(tert)butyl ether(MTBE)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
4-Methyl-2-pentanone(MIBK)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Methylene chloride	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
2-Methylnaphthalene	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007



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Ferndale, MI 48220

Sample Date: 05/04/2007

Submit Date: 05/04/2007

Report Date: 05/14/2007

BA Report Number: 92720

BA Sample ID: BN08444

Project Name: 07-14031

Project Number: 07-14031

Sample ID: Field Blk #2

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Naphthalene	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
n-Butylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
n-Propylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
p-Isopropyl Toluene(p-Cymene)	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
sec-Butylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Styrene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Tertiary Butyl Alcohol	Not detected	ug/L	50	SW846 8260B	RG	05/11/2007
tertiaryAmylmeylether(TAME)	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
tertiaryButylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Tetrachloroethene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Tetrahydrofuran	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
Toluene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW846 8260B	RG	05/11/2007
1,1,1-Trichloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,1,2-Trichloroethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Trichloroethene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Trichlorofluoromethane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2,3-Trichloropropane	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Vinyl chloride	Not detected	ug/L	1	SW846 8260B	RG	05/11/2007
Xylenes(total)	Not detected	ug/L	3	SW846 8260B	RG	05/11/2007



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Sample Date: 05/04/2007
Submit Date: 05/04/2007
Report Date: 05/14/2007

To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

BA Report Number: 92720
BA Sample ID: BN08444

Project Name: 07-14031
Project Number: 07-14031
Sample ID: Field Blk #2

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
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DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by:

Date:

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5/14/07



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To: McDowell & Associates
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 Ferndale, MI 48220

Sample Date: 05/04/2007
 Submit Date: 05/04/2007
 Report Date: 05/09/2007

BA Report Number: 92720
 BA Sample ID: BN08445

Project Name: 07-14031
 Project Number: 07-14031
 Sample ID: 7

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
PNA Analysis						
Acenaphthene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Acenaphthylene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Anthracene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Benzo(a)anthracene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Benzo(a)pyrene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Benzo(b)fluoranthene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Benzo(g,h,i)perylene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Benzo(k)fluoranthene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
2-Chloronaphthalene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Chrysene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Dibenzo(a,h)anthracene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Fluoranthene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Fluorene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
2-Methylnaphthalene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Phenanthrene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Pyrene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
PNA solid GC/MS (extraction)	Extracted			3510/3550	LS	05/07/2007
Volatile Analysis						
Benzene	Not detected	ug/Kg	50	SW846 8021	BY	05/07/2007
Ethylbenzene	Not detected	ug/Kg	50	SW846 8021	BY	05/07/2007
Isopropylbenzene	Not detected	ug/Kg	50	SW846 8021	BY	05/07/2007
n-Propylbenzene	Not detected	ug/Kg	50	SW846 8021	BY	05/07/2007
Toluene	Not detected	ug/Kg	50	SW846 8021	BY	05/07/2007
1,2,3-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8021	BY	05/07/2007
1,2,4-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8021	BY	05/07/2007
1,3,5-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8021	BY	05/07/2007
Xylenes(total)	Not detected	ug/Kg	150	SW846 8021	BY	05/07/2007
EPA Method 5035 Methanol Preserv	Extracted			EPA 5035	MCD	05/04/2007



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Sample Date: 05/04/2007
 Submit Date: 05/04/2007
 Report Date: 05/09/2007

To: McDowell & Associates
 21355 Hatcher Ave.
 Ferndale, MI 48220

BA Report Number: 92720
 BA Sample ID: BN08445

Project Name: 07-14031
 Project Number: 07-14031
 Sample ID: 7

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
%Solid	87	%		ASTM D-2216	GW	05/07/2007

All soil results based on dry weight.

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by:
 Date:

utrosl
5/14/07



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Sample Date: 05/04/2007
Submit Date: 05/04/2007
Report Date: 05/14/2007

To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

BA Report Number: 92720
BA Sample ID: BN08446

Project Name: 07-14031
Project Number: 07-14031
Sample ID: 8

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
PNA Analysis						
Acenaphthene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Acenaphthylene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Anthracene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Benzo(a)anthracene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Benzo(a)pyrene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Benzo(b)fluoranthene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Benzo(g,h,i)perylene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Benzo(k)fluoranthene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
2-Chloronaphthalene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Chrysene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Dibenzo(a,h)anthracene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Fluoranthene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Fluorene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
2-Methylnaphthalene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Phenanthrene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Pyrene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
PNA solid GC/MS (extraction)	Extracted			3510/3550	LS	05/07/2007
Volatile Analysis						
Benzene	Not detected	ug/Kg	50	SW846 8021	BY	05/07/2007
Ethylbenzene	Not detected	ug/Kg	50	SW846 8021	BY	05/07/2007
Isopropylbenzene	Not detected	ug/Kg	50	SW846 8021	BY	05/07/2007
n-Propylbenzene	Not detected	ug/Kg	50	SW846 8021	BY	05/07/2007
Toluene	Not detected	ug/Kg	50	SW846 8021	BY	05/07/2007
1,2,3-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8021	BY	05/07/2007
1,2,4-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8021	BY	05/07/2007
1,3,5-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8021	BY	05/07/2007
Xylenes(total)	Not detected	ug/Kg	150	SW846 8021	BY	05/07/2007



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Sample Date: 05/04/2007
 Submit Date: 05/04/2007
 Report Date: 05/14/2007

To: McDowell & Associates
 21355 Hatcher Ave.
 Ferndale, MI 48220

BA Report Number: 92720
 BA Sample ID: BN08446

Project Name: 07-14031
 Project Number: 07-14031
 Sample ID: 8

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
EPA Method 5035 Methanol Preserv	Extracted			EPA 5035	MCD	05/04/2007
%Solid	78	%		ASTM D-2216	GW	05/07/2007

All soil results based on dry weight.

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by: _____

Date: _____

[Signature]
 5/14/07



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Sample Date: 05/04/2007
Submit Date: 05/04/2007
Report Date: 05/14/2007

To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

BA Report Number: 92720
BA Sample ID: BN08447

Project Name: 07-14031
Project Number: 07-14031
Sample ID: 11

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
PNA Analysis						
Acenaphthene	1800	ug/Kg	330	SW846 8270C	RG	05/07/2007
Acenaphthylene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Anthracene	880	ug/Kg	330	SW846 8270C	RG	05/07/2007
Benzo(a)anthracene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Benzo(a)pyrene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Benzo(b)fluoranthene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Benzo(g,h,i)perylene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Benzo(k)fluoranthene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
2-Chloronaphthalene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Chrysene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Dibenzo(a,h)anthracene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Fluoranthene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Fluorene	2700	ug/Kg	330	SW846 8270C	RG	05/07/2007
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
2-Methylnaphthalene	15000	ug/Kg	330	SW846 8270C	RG	05/07/2007
Phenanthrene	5200	ug/Kg	330	SW846 8270C	RG	05/07/2007
Pyrene	630	ug/Kg	330	SW846 8270C	RG	05/07/2007
PNA solid GC/MS (extraction)	Extracted			3510/3550	LS	05/07/2007
Volatile Analysis						
Benzene	Not detected	ug/Kg	50	SW846 8021	BY	05/07/2007
Ethylbenzene	990	ug/Kg	50	SW846 8021	BY	05/07/2007
Isopropylbenzene	430	ug/Kg	50	SW846 8021	BY	05/07/2007
n-Propylbenzene	1100	ug/Kg	50	SW846 8021	BY	05/07/2007
Toluene	Not detected	ug/Kg	50	SW846 8021	BY	05/07/2007
1,2,3-Trimethylbenzene	3000	ug/Kg	50	SW846 8021	BY	05/07/2007
1,2,4-Trimethylbenzene	6800	ug/Kg	50	SW846 8021	BY	05/07/2007
1,3,5-Trimethylbenzene	2500	ug/Kg	50	SW846 8021	BY	05/07/2007
Xylenes(total)	1600	ug/Kg	150	SW846 8021	BY	05/07/2007
EPA Method 5035 Methanol Preserv	Extracted			EPA 5035	MCD	05/04/2007



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Sample Date: 05/04/2007
 Submit Date: 05/04/2007
 Report Date: 05/14/2007

BA Report Number: 92720
 BA Sample ID: BN08447

Project Name: 07-14031
 Project Number: 07-14031
 Sample ID: 11

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
%Solid	84	%		ASTM D-2216	GW	05/07/2007

All soil results based on dry weight.

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by: WJ/aw/sk
 Date: 5/14/07



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Sample Date: 05/04/2007
Submit Date: 05/04/2007
Report Date: 05/11/2007

To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

BA Report Number: 92720
BA Sample ID: BN08448

Project Name: 07-14031
Project Number: 07-14031
Sample ID: 15a

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
PCB Analysis						
ARO 1016	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
ARO 1221	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
ARO 1232	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
ARO 1242	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
ARO 1248	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
ARO 1254	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
ARO 1260	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
ARO 1262	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
ARO 1268	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
Total PCB	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
PCB solid extraction	Extracted			3510/3550	LS	05/07/2007
PNA Analysis						
Acenaphthene	4700	ug/Kg	990	SW846 8270C	RG	05/07/2007
Acenaphthylene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Anthracene	3300	ug/Kg	990	SW846 8270C	RG	05/07/2007
Benzo(a)anthracene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Benzo(a)pyrene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Benzo(b)fluoranthene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Benzo(g,h,i)perylene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Benzo(k)fluoranthene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
2-Chloronaphthalene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Chrysene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Dibenzo(a,h)anthracene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Fluoranthene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Fluorene	8000	ug/Kg	990	SW846 8270C	RG	05/07/2007
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
2-Methylnaphthalene	55000	ug/Kg	990	SW846 8270C	RG	05/07/2007
Phenanthrene	17000	ug/Kg	990	SW846 8270C	RG	05/07/2007



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Sample Date: 05/04/2007
 Submit Date: 05/04/2007
 Report Date: 05/11/2007

To: McDowell & Associates
 21355 Hatcher Ave.
 Ferndale, MI 48220

BA Report Number: 92720
 BA Sample ID: BN08448

Project Name: 07-14031
 Project Number: 07-14031
 Sample ID: 15a

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Pyrene	2200	ug/Kg	990	SW846 8270C	RG	05/07/2007
PNA solid GC/MS (extraction)	Extracted			3510/3550	LS	05/07/2007
Volatile Analysis(Methanol Preserved)						
Acetone	Not detected	ug/Kg	14300	SW846 8260B	CW	05/07/2007
Acrylonitrile	Not detected	ug/Kg	1900	SW846 8260B	CW	05/07/2007
Benzene	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
Bromobenzene	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
Bromochloromethane	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
Bromodichloromethane	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
Bromoform	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
Bromomethane(Methyl bromide)	Not detected	ug/Kg	3800	SW846 8260B	CW	05/07/2007
2-Butanone (MEK)	Not detected	ug/Kg	4750	SW846 8260B	CW	05/07/2007
Carbon disulfide	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
Carbon tetrachloride	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
Chlorobenzene	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
Chloroethane	Not detected	ug/Kg	4750	SW846 8260B	CW	05/07/2007
Chloroform	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
Chloromethane(Methyl chloride)	Not detected	ug/Kg	4750	SW846 8260B	CW	05/07/2007
cis-1,2-Dichloroethene	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
cis-1,3-Dichloropropene	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
1,2-Dibromo-3-Chloropropane	Not detected	ug/Kg	4750	SW846 8260B	CW	05/07/2007
Dibromochloromethane	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
1,2-Dibromoethane(Ethylene dibromide)	Not detected	ug/Kg	380	SW846 8260B	CW	05/07/2007
Dibromomethane(Methylene bromide)	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
1,2-Dichlorobenzene	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
1,3-Dichlorobenzene	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
1,4-Dichlorobenzene	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
Dichlorodifluoromethane	Not detected	ug/Kg	1900	SW846 8260B	CW	05/07/2007
1,1-Dichloroethane	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
1,2-Dichloroethane	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
1,1-Dichloroethene	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007



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Sample Date: 05/04/2007
Submit Date: 05/04/2007
Report Date: 05/11/2007

To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

BA Report Number: 92720
BA Sample ID: BN08448

Project Name: 07-14031
Project Number: 07-14031
Sample ID: 15a

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,2-Dichloropropane	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
Diethyl ether	Not detected	ug/Kg	3800	SW846 8260B	CW	05/07/2007
Diisopropyl Ether	Not detected	ug/Kg	4750	SW846 8260B	CW	05/07/2007
Ethyl benzene	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
Ethyltertiary butylether	Not detected	ug/Kg	4750	SW846 8260B	CW	05/07/2007
Hexachloroethane	Not detected	ug/Kg	1900	SW846 8260B	CW	05/07/2007
2-Hexanone(Methyl Butyl Ketone)	Not detected	ug/Kg	4750	SW846 8260B	CW	05/07/2007
Isopropylbenzene	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
Methyl iodide(Iodomethane)	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
Methyl(tert)butyl ether(MTBE)	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
4-Methyl-2-pentanone(MIBK)	Not detected	ug/Kg	4750	SW846 8260B	CW	05/07/2007
Methylene chloride	Not detected	ug/Kg	1900	SW846 8260B	CW	05/07/2007
2-Methylnaphthalene	63000	ug/Kg	4750	SW846 8260B	CW	05/07/2007
Naphthalene	12000	ug/Kg	4750	SW846 8260B	CW	05/07/2007
n-Butylbenzene	4400	ug/Kg	950	SW846 8260B	CW	05/07/2007
n-Propylbenzene	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
p-Isopropyl Toluene(p-Cymene)	2200	ug/Kg	950	SW846 8260B	CW	05/07/2007
sec-Butylbenzene	2900	ug/Kg	950	SW846 8260B	CW	05/07/2007
Styrene	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
tertiary Amylmethylether	Not detected	ug/Kg	4750	SW846 8260B	CW	05/07/2007
Tertiary Butyl Alcohol	Not detected	ug/Kg	47500	SW846 8260B	CW	05/07/2007
tertiary Butylbenzene	Not detected	ug/Kg	4750	SW846 8260B	CW	05/07/2007
1,1,1,2-Tetrachloroethane	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
1,1,2,2-Tetrachloroethane	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
Tetrachloroethene	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
Tetrahydrofuran	Not detected	ug/Kg	4750	SW846 8260B	CW	05/07/2007
Toluene	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
trans-1,2-Dichloroethene	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
trans-1,3-Dichloropropene	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
trans-1,4-Dichloro-2-butene	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
1,2,3-Trichlorobenzene	Not detected	ug/Kg	4750	SW846 8260B	CW	05/07/2007
1,2,4-Trichlorobenzene	Not detected	ug/Kg	4750	SW846 8260B	CW	05/07/2007



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Sample Date: 05/04/2007
 Submit Date: 05/04/2007
 Report Date: 05/11/2007

To: McDowell & Associates
 21355 Hatcher Ave.
 Ferndale, MI 48220

BA Report Number: 92720
 BA Sample ID: BN08448

Project Name: 07-14031
 Project Number: 07-14031
 Sample ID: 15a

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,1,1-Trichloroethane	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
1,1,2-Trichloroethane	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
Trichloroethene	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
Trichlorofluoromethane	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
1,2,3-Trichloropropane	Not detected	ug/Kg	950	SW846 8260B	CW	05/07/2007
1,2,3-Trimethylbenzene	7400	ug/Kg	950	SW846 8260B	CW	05/07/2007
1,2,4-Trimethylbenzene	11000	ug/Kg	950	SW846 8260B	CW	05/07/2007
1,3,5-Trimethylbenzene	3100	ug/Kg	950	SW846 8260B	CW	05/07/2007
Vinyl chloride	Not detected	ug/Kg	760	SW846 8260B	CW	05/07/2007
Xylenes	Not detected	ug/Kg	2850	SW846 8260B	CW	05/07/2007
EPA Method 5035 Methanol Preserv	Extracted			EPA 5035	MCD	05/04/2007
%Solid	89	%		ASTM D-2216	GW	05/07/2007

All soil results based on dry weight.

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Elevated semi-volatile & volatile dl due to sample matrix.

Released by: _____

Date: _____

W. J. O'Neil
 5/14/07



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Sample Date: 05/04/2007
Submit Date: 05/04/2007
Report Date: 05/14/2007

To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

BA Report Number: 92720
BA Sample ID: BN08449

Project Name: 07-14031
Project Number: 07-14031
Sample ID: 15b

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
PNA Analysis						
Acenaphthene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Acenaphthylene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Anthracene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Benzo(a)anthracene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Benzo(a)pyrene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Benzo(b)fluoranthene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Benzo(g,h,i)perylene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Benzo(k)fluoranthene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
2-Chloronaphthalene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Chrysene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Dibenzo(a,h)anthracene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Fluoranthene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Fluorene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
2-Methylnaphthalene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Phenanthrene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
Pyrene	Not detected	ug/Kg	330	SW846 8270C	RG	05/07/2007
PNA solid GC/MS (extraction)	Extracted			3510/3550	LS	05/07/2007
Volatile Analysis(Methanol Preserved)						
Acetone	Not detected	ug/Kg	750	SW846 8260B	CW	05/07/2007
Acrylonitrile	Not detected	ug/Kg	100	SW846 8260B	CW	05/07/2007
Benzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Bromobenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Bromochloromethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Bromodichloromethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Bromoform	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Bromomethane(Methyl bromide)	Not detected	ug/Kg	200	SW846 8260B	CW	05/07/2007
2-Butanone (MEK)	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007



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Sample Date: 05/04/2007
Submit Date: 05/04/2007
Report Date: 05/14/2007

To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

BA Report Number: 92720
BA Sample ID: BN08449

Project Name: 07-14031
Project Number: 07-14031
Sample ID: 15b

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Carbon disulfide	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Carbon tetrachloride	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Chlorobenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Chloroethane	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Chloroform	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Chloromethane(Methyl chloride)	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
cis-1,2-Dichloroethene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
cis-1,3-Dichloropropene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,2-Dibromo-3-Chloropropane	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Dibromochloromethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,2-Dibromoethane(Ethylene dibromide)	Not detected	ug/Kg	20	SW846 8260B	CW	05/07/2007
Dibromomethane(Methylene bromide)	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,2-Dichlorobenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,3-Dichlorobenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,4-Dichlorobenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Dichlorodifluoromethane	Not detected	ug/Kg	100	SW846 8260B	CW	05/07/2007
1,1-Dichloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,2-Dichloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,1-Dichloroethene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,2-Dichloropropane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Diethyl ether	Not detected	ug/Kg	200	SW846 8260B	CW	05/07/2007
Diisopropyl Ether	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Ethyl benzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Ethyltertiary butylether	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Hexachloroethane	Not detected	ug/Kg	100	SW846 8260B	CW	05/07/2007
2-Hexanone(Methyl Butyl Ketone)	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Isopropylbenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Methyl iodide(Iodomethane)	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Methyl(tert)butyl ether(MTBE)	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
4-Methyl-2-pentanone(MIBK)	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Methylene chloride	Not detected	ug/Kg	100	SW846 8260B	CW	05/07/2007
2-Methylnaphthalene	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007



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Sample Date: 05/04/2007
 Submit Date: 05/04/2007
 Report Date: 05/14/2007

To: McDowell & Associates
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BA Report Number: 92720
 BA Sample ID: BN08449

Project Name: 07-14031
 Project Number: 07-14031
 Sample ID: 15b

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Naphthalene	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
n-Butylbenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
n-Propylbenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
p-Isopropyl Toluene(p-Cymene)	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
sec-Butylbenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Styrene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
tertiary Amylmethylether	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Tertiary Butyl Alcohol	Not detected	ug/Kg	2500	SW846 8260B	CW	05/07/2007
tertiary Butylbenzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
1,1,1,2-Tetrachloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,1,2,2-Tetrachloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Tetrachloroethene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Tetrahydrofuran	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
Toluene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
trans-1,2-Dichloroethene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
trans-1,3-Dichloropropene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
trans-1,4-Dichloro-2-butene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,2,3-Trichlorobenzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
1,2,4-Trichlorobenzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/07/2007
1,1,1-Trichloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,1,2-Trichloroethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Trichloroethene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Trichlorofluoromethane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,2,3-Trichloropropane	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,2,3-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,2,4-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
1,3,5-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	CW	05/07/2007
Vinyl chloride	Not detected	ug/Kg	40	SW846 8260B	CW	05/07/2007
Xylenes	Not detected	ug/Kg	150	SW846 8260B	CW	05/07/2007
EPA Method 5035 Methanol Preserv	Extracted			EPA 5035	MCD	05/04/2007
%Solid	80	%		ASTM D-2216	GW	05/07/2007



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Sample Date: 05/04/2007
Submit Date: 05/04/2007
Report Date: 05/14/2007

To: McDowell & Associates
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Ferndale, MI 48220

BA Report Number: 92720
BA Sample ID: BN08449

Project Name: 07-14031
Project Number: 07-14031
Sample ID: 15b

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
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All soil results based on dry weight.

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by:

Date:

retrosult
5/14/07



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Sample Date: 05/04/2007
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To: McDowell & Associates
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BA Report Number: 92720
 BA Sample ID: BN08450

Project Name: 07-14031
 Project Number: 07-14031
 Sample ID: 17

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
PCB Analysis						
ARO 1016	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
ARO 1221	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
ARO 1232	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
ARO 1242	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
ARO 1248	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
ARO 1254	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
ARO 1260	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
ARO 1262	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
ARO 1268	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
Total PCB	Not detected	ug/Kg	330	SW846 8082	BY	05/08/2007
PCB solid extraction	Extracted			3510/3550	LS	05/07/2007
PNA Analysis						
Acenaphthene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Acenaphthylene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Anthracene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Benzo(a)anthracene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Benzo(a)pyrene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Benzo(b)fluoranthene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Benzo(g,h,i)perylene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Benzo(k)fluoranthene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
2-Chloronaphthalene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Chrysene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Dibenzo(a,h)anthracene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Fluoranthene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Fluorene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
2-Methylnaphthalene	13000	ug/Kg	990	SW846 8270C	RG	05/07/2007
Phenanthrene	1200	ug/Kg	990	SW846 8270C	RG	05/07/2007
Pyrene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007



Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 05/04/2007
Submit Date: 05/04/2007
Report Date: 05/11/2007

To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

BA Report Number: 92720
BA Sample ID: BN08450

Project Name: 07-14031
Project Number: 07-14031
Sample ID: 17

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
PNA solid GC/MS (extraction)	Extracted			3510/3550	LS	05/07/2007
Volatile Analysis(Methanol Preserved)						
Acetone	Not detected	ug/Kg	3750	SW846 8260B	CW	05/09/2007
Acrylonitrile	Not detected	ug/Kg	500	SW846 8260B	CW	05/09/2007
Benzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Bromobenzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Bromochloromethane	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Bromodichloromethane	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Bromoform	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Bromomethane(Methyl bromide)	Not detected	ug/Kg	1000	SW846 8260B	CW	05/09/2007
2-Butanone (MEK)	Not detected	ug/Kg	1250	SW846 8260B	CW	05/09/2007
Carbon disulfide	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Carbon tetrachloride	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Chlorobenzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Chloroethane	Not detected	ug/Kg	1250	SW846 8260B	CW	05/09/2007
Chloroform	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Chloromethane(Methyl chloride)	Not detected	ug/Kg	1250	SW846 8260B	CW	05/09/2007
cis-1,2-Dichloroethene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
cis-1,3-Dichloropropene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
1,2-Dibromo-3-Chloropropane	Not detected	ug/Kg	1250	SW846 8260B	CW	05/09/2007
Dibromochloromethane	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
1,2-Dibromoethane(Ethylene dibromide)	Not detected	ug/Kg	100	SW846 8260B	CW	05/09/2007
Dibromomethane(Methylene bromide)	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
1,2-Dichlorobenzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
1,3-Dichlorobenzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
1,4-Dichlorobenzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Dichlorodifluoromethane	Not detected	ug/Kg	500	SW846 8260B	CW	05/09/2007
1,1-Dichloroethane	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
1,2-Dichloroethane	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
1,1-Dichloroethene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
1,2-Dichloropropane	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007



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Sample Date: 05/04/2007
Submit Date: 05/04/2007
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To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

BA Report Number: 92720
BA Sample ID: BN08450

Project Name: 07-14031
Project Number: 07-14031
Sample ID: 17

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Diethyl ether	Not detected	ug/Kg	1000	SW846 8260B	CW	05/09/2007
Diisopropyl Ether	Not detected	ug/Kg	1250	SW846 8260B	CW	05/09/2007
Ethyl benzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Ethyltertiary butylether	Not detected	ug/Kg	1250	SW846 8260B	CW	05/09/2007
Hexachloroethane	Not detected	ug/Kg	500	SW846 8260B	CW	05/09/2007
2-Hexanone(Methyl Butyl Ketone)	Not detected	ug/Kg	1250	SW846 8260B	CW	05/09/2007
Isopropylbenzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Methyl iodide(Iodomethane)	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Methyl(tert)butyl ether(MTBE)	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
4-Methyl-2-pentanone(MIBK)	Not detected	ug/Kg	1250	SW846 8260B	CW	05/09/2007
Methylene chloride	Not detected	ug/Kg	500	SW846 8260B	CW	05/09/2007
2-Methylnaphthalene	19000	ug/Kg	1250	SW846 8260B	CW	05/09/2007
Naphthalene	2800	ug/Kg	1250	SW846 8260B	CW	05/09/2007
n-Butylbenzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
n-Propylbenzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
p-Isopropyl Toluene(p-Cymene)	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
sec-Butylbenzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Styrene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
tertiary Amylmethylether	Not detected	ug/Kg	1250	SW846 8260B	CW	05/09/2007
Tertiary Butyl Alcohol	Not detected	ug/Kg	12500	SW846 8260B	CW	05/09/2007
tertiary Butylbenzene	Not detected	ug/Kg	1250	SW846 8260B	CW	05/09/2007
1,1,1,2-Tetrachloroethane	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
1,1,2,2-Tetrachloroethane	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Tetrachloroethene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Tetrahydrofuran	Not detected	ug/Kg	1250	SW846 8260B	CW	05/09/2007
Toluene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
trans-1,2-Dichloroethene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
trans-1,3-Dichloropropene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
trans-1,4-Dichloro-2-butene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
1,2,3-Trichlorobenzene	Not detected	ug/Kg	1250	SW846 8260B	CW	05/09/2007
1,2,4-Trichlorobenzene	Not detected	ug/Kg	1250	SW846 8260B	CW	05/09/2007
1,1,1-Trichloroethane	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007



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Sample Date: 05/04/2007
 Submit Date: 05/04/2007
 Report Date: 05/11/2007

To: McDowell & Associates
 21355 Hatcher Ave.
 Ferndale, MI 48220

BA Report Number: 92720
 BA Sample ID: BN08450

Project Name: 07-14031
 Project Number: 07-14031
 Sample ID: 17

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,1,2-Trichloroethane	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Trichloroethene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Trichlorofluoromethane	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
1,2,3-Trichloropropane	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
1,2,3-Trimethylbenzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
1,2,4-Trimethylbenzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
1,3,5-Trimethylbenzene	Not detected	ug/Kg	250	SW846 8260B	CW	05/09/2007
Vinyl chloride	Not detected	ug/Kg	200	SW846 8260B	CW	05/09/2007
Xylenes	Not detected	ug/Kg	750	SW846 8260B	CW	05/09/2007
EPA Method 5035 Methanol Preserv	Extracted			EPA 5035	MCD	05/04/2007
%Solid	86	%		ASTM D-2216	GW	05/07/2007

All soil results based on dry weight.

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by: [Signature]
 Date: 5/14/07

Elevated volatile & semi-volatile dl due to sample matrix.



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Sample Date: 05/04/2007
 Submit Date: 05/04/2007
 Report Date: 05/09/2007

To: McDowell & Associates
 21355 Hatcher Ave.
 Ferndale, MI 48220

BA Report Number: 92720
 BA Sample ID: BN08451

Project Name: 07-14031
 Project Number: 07-14031
 Sample ID: SS-1

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
PNA Analysis						
Acenaphthene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Acenaphthylene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Anthracene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Benzo(a)anthracene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Benzo(a)pyrene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Benzo(b)fluoranthene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Benzo(g,h,i)perylene	1300	ug/Kg	990	SW846 8270C	RG	05/07/2007
Benzo(k)fluoranthene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
2-Chloronaphthalene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Chrysene	1900	ug/Kg	990	SW846 8270C	RG	05/07/2007
Dibenzo(a,h)anthracene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Fluoranthene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Fluorene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Indeno(1,2,3-cd)pyrene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
2-Methylnaphthalene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Phenanthrene	Not detected	ug/Kg	990	SW846 8270C	RG	05/07/2007
Pyrene	2200	ug/Kg	990	SW846 8270C	RG	05/07/2007
PNA solid GC/MS (extraction)	Extracted			3510/3550	LS	05/07/2007
Volatile Analysis						
Benzene	Not detected	ug/Kg	200	SW846 8021	BY	05/07/2007
Ethylbenzene	Not detected	ug/Kg	200	SW846 8021	BY	05/07/2007
Isopropylbenzene	Not detected	ug/Kg	200	SW846 8021	BY	05/07/2007
n-Propylbenzene	Not detected	ug/Kg	200	SW846 8021	BY	05/07/2007
Toluene	Not detected	ug/Kg	200	SW846 8021	BY	05/07/2007
1,2,3-Trimethylbenzene	Not detected	ug/Kg	200	SW846 8021	BY	05/07/2007
1,2,4-Trimethylbenzene	Not detected	ug/Kg	200	SW846 8021	BY	05/07/2007
1,3,5-Trimethylbenzene	Not detected	ug/Kg	200	SW846 8021	BY	05/07/2007
Xylenes(total)	Not detected	ug/Kg	600	SW846 8021	BY	05/07/2007
EPA Method 5035 Methanol Preserv	Extracted			EPA 5035	MCD	05/04/2007



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To: McDowell & Associates
 21355 Hatcher Ave.
 Ferndale, MI 48220

Sample Date: 05/04/2007
 Submit Date: 05/04/2007
 Report Date: 05/09/2007

BA Report Number: 92720
 BA Sample ID: BN08451

Project Name: 07-14031
 Project Number: 07-14031
 Sample ID: SS-1

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
%Solid	33	%		ASTM D-2216	GW	05/07/2007

All soil results based on dry weight.

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by: W. J. [Signature]
 Date: 5/14/07

Elevated semi-volatile & volatile dl due to sample matrix.



Brighton Analytical, L.L.C.™

2105 Pless Drive
Brighton, MI 48114

Phone: 810-229-7575
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COMPANY NAME: McDowell & Assoc.

PROJECT NAME: 07-14031

PROJECT NUMBER: 07-14031

P. O. NUMBER:

REQUESTED TURNAROUND: (circle one)
Faster, 1-3 business days (verify with lab & specify date needed)
Expedited: 5 business days
Standard: 10 business days

IF RUSH, approved by:

Sampling

Time

Date

Sample Description

Brighton ID #

2) 2443

METH BIK #2

9/4/07

3) 44

Fug BIK #2

1

4) 45

8

1

5) 46

11

1

6) 47

15a

1

7) 48

15b

1

8) 49

17

1

9) 50

SS-1

1

10) 51

SS-1

1

11)

SS-1

1

Temperature of Samples °C: 1/CE

Please fill out the Chain of Custody completely and review. Incorrect or incomplete information will result in a "hold" on all analyses.

Trans. #	RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	DATE:	TIME:
1					5/1/07	1235		
2					5/1/07	1350		

BA PROJECT #:

07-1720

ABBREVIATIONS FOR MATRIX

- S = Solid
- L = Liquid
- DW = Drinking H₂O
- WW = Wastewater
- O = Oil
- P = Wipe
- A = Air (Tedlar Bag)
- F = Filter
- T = Tube
- M = Methanol

Analysis Requested/Method

FOR DISSOLVED METALS (L) LAB TO FILTER (F) FIELD FILTRERED

Sample Matrix	VOCs	PNAs	BTX/TMB	PCBs
1	X			
2	X	X	X	X
3	X	X	X	X
4	X	X	X	X
5	X	X	X	X
6	X	X	X	X
7	X	X	X	X
8	X	X	X	X
9	X	X	X	X
10	X	X	X	X
11	X	X	X	X

PAGE 1 OF 1

REPORT RESULTS TO:

McDowell & Assoc.

YU enqun

Att: Chen Lagerborn

PHONE:

FAX:

Sample received within holding time? yes no

For TCLP ONLY - Federal Limits Other

Samples intact? yes no (if no, see below)

Note samples if not intact:

Headspace/bubbles in VOA'S? yes no n/a

Sample containers and COC match? yes no

Comments:

METHANOL

7 MCP



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Sample Date: 05/04/2007
Submit Date: 05/07/2007
Report Date: 05/14/2007

To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

BA Report Number: 92754
BA Sample ID: BN08601

Project Name: 07-14031
Project Number: 07-14031
Sample ID: Trip Blank

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis						
Acetone	Not detected	ug/L	20	SW846 8260B	CW	05/12/2007
Acrylonitrile	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Benzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Bromobenzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Bromochloromethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Bromodichloromethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Bromoform	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Bromomethane(Methyl Bromide)	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
2-Butanone (MEK)	Not detected	ug/L	5	SW846 8260B	CW	05/12/2007
Carbon disulfide	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Carbon tetrachloride	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Chlorobenzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Chloroethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Chloroform	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Chloromethane(Methyl Chloride)	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,2-Dibromo-3-Chloropropane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Dibromochloromethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,2-Dibromoethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Dibromomethane(Methylene Bromide)	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,2-Dichlorobenzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,3-Dichlorobenzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,4-Dichlorobenzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Dichlorodifluoromethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,1-Dichloroethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,2-Dichloroethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,1-Dichloroethene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,2-Dichloropropane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Diethyl ether	Not detected	ug/L	5	SW846 8260B	CW	05/12/2007



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Report Date: 05/14/2007

To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

BA Report Number: 92754
BA Sample ID: BN08601

Project Name: 07-14031
Project Number: 07-14031
Sample ID: Trip Blank

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Diisopropyl Ether(DIPE)	Not detected	ug/L	5	SW846 8260B	CW	05/12/2007
Ethyl benzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Ethyltertiarybutylether(ETBE)	Not detected	ug/L	5	SW846 8260B	CW	05/12/2007
Hexachloroethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
2-Hexanone(Methyl Butyl Ketone)	Not detected	ug/L	5	SW846 8260B	CW	05/12/2007
Isopropylbenzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Methyl iodide(Iodomethane)	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Methyl(tert)butyl ether(MTBE)	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
4-Methyl-2-pentanone(MIBK)	Not detected	ug/L	5	SW846 8260B	CW	05/12/2007
Methylene chloride	Not detected	ug/L	5	SW846 8260B	CW	05/12/2007
2-Methylnaphthalene	Not detected	ug/L	5	SW846 8260B	CW	05/12/2007
Naphthalene	Not detected	ug/L	5	SW846 8260B	CW	05/12/2007
n-Butylbenzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
n-Propylbenzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
p-Isopropyl Toluene(p-Cymene)	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
sec-Butylbenzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Styrene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Tertiary Butyl Alcohol	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007
tertiaryAmylmethylether(TAME)	Not detected	ug/L	5	SW846 8260B	CW	05/12/2007
tertiaryButylbenzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Tetrachloroethene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Tetrahydrofuran	Not detected	ug/L	5	SW846 8260B	CW	05/12/2007
Toluene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW846 8260B	CW	05/12/2007
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW846 8260B	CW	05/12/2007
1,1,1-Trichloroethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,1,2-Trichloroethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007



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Sample Date: 05/04/2007
 Submit Date: 05/07/2007
 Report Date: 05/14/2007

To: McDowell & Associates
 21355 Hatcher Ave.
 Ferndale, MI 48220

BA Report Number: 92754
 BA Sample ID: BN08601

Project Name: 07-14031
 Project Number: 07-14031
 Sample ID: Trip Blank

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Trichloroethene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Trichlorofluoromethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,2,3-Trichloropropane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Vinyl chloride	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Xylenes(total)	Not detected	ug/L	3	SW846 8260B	CW	05/12/2007

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by: _____

Date: _____

W. J. [Signature]
 5/15/07



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 2105 Pless Drive
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 Phone: (810) 229-7575 FAX: (810) 229-8650
 e-mail: bai-brighton@sbcglobal.net

Sample Date: 05/04/2007
 Submit Date: 05/07/2007
 Report Date: 05/14/2007

To: McDowell & Associates
 21355 Hatcher Ave.
 Ferndale, MI 48220

BA Report Number: 92754
 BA Sample ID: BN08602

Project Name: 07-14031
 Project Number: 07-14031
 Sample ID: 9W

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
PNA Analysis						
Acenaphthene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Acenaphthylene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Anthracene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Benzo(a)anthracene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Benzo(a)pyrene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Benzo(b)fluoranthene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Benzo(g,h,i)perylene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Benzo(k)fluoranthene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
2-Chloronaphthalene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Chrysene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Dibenzo(a,h)anthracene	Not detected	ug/L	2	EPA 625	RG	05/09/2007
Fluoranthene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Fluorene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	EPA 625	RG	05/09/2007
2-Methylnaphthalene	8	ug/L	5	EPA 625	RG	05/09/2007
Phenanthrene	2	ug/L	2	EPA 625	RG	05/09/2007
Pyrene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
PNA liquid GC/MS (extraction)	Extracted			3510/3550	LS	05/09/2007
Volatile Analysis						
Benzene	Not detected	ug/L	1	EPA 602	BY	05/11/2007
Ethylbenzene	5	ug/L	1	EPA 602	BY	05/11/2007
Isopropylbenzene	Not detected	ug/L	1	EPA 602	BY	05/11/2007
n-Propylbenzene	Not detected	ug/L	1	EPA 602	BY	05/11/2007
Toluene	Not detected	ug/L	1	EPA 602	BY	05/11/2007
1,2,3-Trimethylbenzene	4	ug/L	1	EPA 602	BY	05/11/2007
1,2,4-Trimethylbenzene	14	ug/L	1	EPA 602	BY	05/11/2007
1,3,5-Trimethylbenzene	6	ug/L	1	EPA 602	BY	05/11/2007
Xylenes(total)	Not detected	ug/L	3	EPA 602	BY	05/11/2007



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Sample Date: 05/04/2007
Submit Date: 05/07/2007
Report Date: 05/14/2007

To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

BA Report Number: 92754
BA Sample ID: BN08602

Project Name: 07-14031
Project Number: 07-14031
Sample ID: 9W

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
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DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by: W. J. [Signature]
Date: 5/15/07



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Sample Date: 05/04/2007
Submit Date: 05/07/2007
Report Date: 05/14/2007

To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

BA Report Number: 92754
BA Sample ID: BN08603

Project Name: 07-14031
Project Number: 07-14031
Sample ID: 10W

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
PNA Analysis						
Acenaphthene	11	ug/L	5	EPA 625	RG	05/09/2007
Acenaphthylene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Anthracene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Benzo(a)anthracene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Benzo(a)pyrene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Benzo(b)fluoranthene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Benzo(g,h,i)perylene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Benzo(k)fluoranthene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
2-Chloronaphthalene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Chrysene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Dibenzo(a,h)anthracene	Not detected	ug/L	2	EPA 625	RG	05/09/2007
Fluoranthene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Fluorene	13	ug/L	5	EPA 625	RG	05/09/2007
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	EPA 625	RG	05/09/2007
2-Methylnaphthalene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Phenanthrene	9	ug/L	2	EPA 625	RG	05/09/2007
Pyrene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
PNA liquid GC/MS (extraction)	Extracted			3510/3550	LS	05/09/2007
Volatile Analysis						
Benzene	Not detected	ug/L	1	EPA 602	BY	05/11/2007
Ethylbenzene	28	ug/L	1	EPA 602	BY	05/11/2007
Isopropylbenzene	Not detected	ug/L	1	EPA 602	BY	05/11/2007
n-Propylbenzene	Not detected	ug/L	1	EPA 602	BY	05/11/2007
Toluene	Not detected	ug/L	1	EPA 602	BY	05/11/2007
1,2,3-Trimethylbenzene	6	ug/L	1	EPA 602	BY	05/11/2007
1,2,4-Trimethylbenzene	29	ug/L	1	EPA 602	BY	05/11/2007
1,3,5-Trimethylbenzene	Not detected	ug/L	1	EPA 602	BY	05/11/2007
Xylenes(total)	Not detected	ug/L	3	EPA 602	BY	05/11/2007



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Sample Date: 05/04/2007
Submit Date: 05/07/2007
Report Date: 05/14/2007

To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

BA Report Number: 92754
BA Sample ID: BN08603

Project Name: 07-14031
Project Number: 07-14031
Sample ID: 10W

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
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DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by: _____

Date: _____

[Handwritten Signature]
05/15/07



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Sample Date: 05/04/2007
 Submit Date: 05/07/2007
 Report Date: 05/15/2007

To: McDowell & Associates
 21355 Hatcher Ave.
 Ferndale, MI 48220

BA Report Number: 92754
 BA Sample ID: BN08604

Project Name: 07-14031
 Project Number: 07-14031
 Sample ID: 15W

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
PNA Analysis						
Acenaphthene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Acenaphthylene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Anthracene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Benzo(a)anthracene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Benzo(a)pyrene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Benzo(b)fluoranthene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Benzo(g,h,i)perylene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Benzo(k)fluoranthene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
2-Chloronaphthalene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Chrysene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Dibenzo(a,h)anthracene	Not detected	ug/L	2	EPA 625	RG	05/09/2007
Fluoranthene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Fluorene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	EPA 625	RG	05/09/2007
2-Methylnaphthalene	14	ug/L	5	EPA 625	RG	05/09/2007
Phenanthrene	Not detected	ug/L	2	EPA 625	RG	05/09/2007
Pyrene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
PNA liquid GC/MS (extraction)	Extracted			3510/3550	LS	05/09/2007
Volatile Analysis						
Acetone	Not detected	ug/L	200	SW846 8260B	CW	05/12/2007
Acrylonitrile	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Benzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Bromobenzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Bromochloromethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Bromodichloromethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Bromoform	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Bromomethane(Methyl Bromide)	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
2-Butanone (MEK)	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007



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Sample Date: 05/04/2007
Submit Date: 05/07/2007
Report Date: 05/15/2007

To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

BA Report Number: 92754
BA Sample ID: BN08604

Project Name: 07-14031
Project Number: 07-14031
Sample ID: 15W

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Carbon disulfide	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Carbon tetrachloride	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Chlorobenzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Chloroethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Chloroform	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Chloromethane(Methyl Chloride)	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
cis-1,2-Dichloroethene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
cis-1,3-Dichloropropene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,2-Dibromo-3-Chloropropane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Dibromochloromethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,2-Dibromoethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Dibromomethane(Methylene Bromide)	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,2-Dichlorobenzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,3-Dichlorobenzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,4-Dichlorobenzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Dichlorodifluoromethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,1-Dichloroethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,2-Dichloroethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,1-Dichloroethene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,2-Dichloropropane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Diethyl ether	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007
Diisopropyl Ether(DIPE)	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007
Ethyl benzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Ethyltertiarybutylether(ETBE)	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007
Hexachloroethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
2-Hexanone(Methyl Butyl Ketone)	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007
Isopropylbenzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Methyl iodide(Iodomethane)	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Methyl(tert)butyl ether(MTBE)	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
4-Methyl-2-pentanone(MIBK)	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007
Methylene chloride	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007
2-Methylnaphthalene	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007



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Sample Date: 05/04/2007
Submit Date: 05/07/2007
Report Date: 05/15/2007

BA Report Number: 92754
BA Sample ID: BN08604

Project Name: 07-14031
Project Number: 07-14031
Sample ID: 15W

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Naphthalene	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007
n-Butylbenzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
n-Propylbenzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
p-Isopropyl Toluene(p-Cymene)	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
sec-Butylbenzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Styrene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Tertiary Butyl Alcohol	Not detected	ug/L	500	SW846 8260B	CW	05/12/2007
tertiaryAmylmethylether(TAME)	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007
tertiaryButylbenzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,1,1,2-Tetrachloroethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,1,1,2,2-Tetrachloroethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Tetrachloroethene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Tetrahydrofuran	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007
Toluene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
trans-1,2-Dichloroethene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
trans-1,3-Dichloropropene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
trans-1,4-Dichloro-2-butene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,2,3-Trichlorobenzene	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007
1,2,4-Trichlorobenzene	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007
1,1,1-Trichloroethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,1,2-Trichloroethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Trichloroethene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Trichlorofluoromethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,2,3-Trichloropropane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,2,3-Trimethylbenzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,2,4-Trimethylbenzene	27	ug/L	10	SW846 8260B	CW	05/12/2007
1,3,5-Trimethylbenzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Vinyl chloride	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Xylenes(total)	Not detected	ug/L	30	SW846 8260B	CW	05/12/2007



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Sample Date: 05/04/2007
 Submit Date: 05/07/2007
 Report Date: 05/15/2007

To: McDowell & Associates
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 Ferndale, MI 48220

BA Report Number: 92754
 BA Sample ID: BN08604

Project Name: 07-14031
 Project Number: 07-14031
 Sample ID: 15W

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
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DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by: *[Signature]*
 Date: 5/15/07

Elevated volatile dl due to sample matrix.



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To: McDowell & Associates

Sample Date: 05/04/2007
Submit Date: 05/07/2007
Report Date: 05/15/2007

21355 Hatcher Ave.
Ferndale, MI 48220

BA Report Number: 92754
BA Sample ID: BN08605

Project Name: 07-14031
Project Number: 07-14031
Sample ID: 15W-Dup

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
PNA Analysis						
Acenaphthene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Acenaphthylene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Anthracene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Benzo(a)anthracene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Benzo(a)pyrene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Benzo(b)fluoranthene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Benzo(g,h,i)perylene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Benzo(k)fluoranthene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
2-Chloronaphthalene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Chrysene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Dibenzo(a,h)anthracene	Not detected	ug/L	2	EPA 625	RG	05/09/2007
Fluoranthene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Fluorene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	EPA 625	RG	05/09/2007
2-Methylnaphthalene	16	ug/L	5	EPA 625	RG	05/09/2007
Phenanthrene	Not detected	ug/L	2	EPA 625	RG	05/09/2007
Pyrene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
PNA liquid GC/MS (extraction)	Extracted			3510/3550	LS	05/09/2007
Volatile Analysis						
Acetone	Not detected	ug/L	200	SW846 8260B	CW	05/12/2007
Acrylonitrile	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Benzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Bromobenzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Bromochloromethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Bromodichloromethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Bromoform	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Bromomethane(Methyl Bromide)	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
2-Butanone (MEK)	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007
Carbon disulfide	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007



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Sample Date: 05/04/2007
 Submit Date: 05/07/2007
 Report Date: 05/15/2007

To: McDowell & Associates
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 Ferndale, MI 48220

BA Report Number: 92754
 BA Sample ID: BN08605

Project Name: 07-14031
 Project Number: 07-14031
 Sample ID: 15W-Dup

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Carbon tetrachloride	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Chlorobenzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Chloroethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Chloroform	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Chloromethane(Methyl Chloride)	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
cis-1,2-Dichloroethene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
cis-1,3-Dichloropropene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,2-Dibromo-3-Chloropropane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Dibromochloromethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,2-Dibromoethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Dibromomethane(Methylene Bromide)	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,2-Dichlorobenzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,3-Dichlorobenzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,4-Dichlorobenzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Dichlorodifluoromethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,1-Dichloroethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,2-Dichloroethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,1-Dichloroethene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,2-Dichloropropane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Diethyl ether	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007
Diisopropyl Ether(DIPE)	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007
Ethyl benzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Ethyltertiarybutylether(ETBE)	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007
Hexachloroethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
2-Hexanone(Methyl Butyl Ketone)	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007
Isopropylbenzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Methyl iodide(Iodomethane)	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Methyl(tert)butyl ether(MTBE)	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
4-Methyl-2-pentanone(MIBK)	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007
Methylene chloride	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007
2-Methylnaphthalene	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007
Naphthalene	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007



Brighton Analytical, L.L.C.

2105 Pless Drive

Brighton, Michigan 48116

Phone: (810) 229-7575 FAX: (810) 229-8650

e-mail: bai-brighton@sbcglobal.net

Sample Date: 05/04/2007

Submit Date: 05/07/2007

Report Date: 05/15/2007

To: McDowell & Associates

21355 Hatcher Ave.

Ferndale, MI 48220

BA Report Number: 92754

BA Sample ID: BN08605

Project Name: 07-14031

Project Number: 07-14031

Sample ID: 15W-Dup

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
n-Butylbenzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
n-Propylbenzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
p-Isopropyl Toluene(p-Cymene)	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
sec-Butylbenzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Styrene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Tertiary Butyl Alcohol	Not detected	ug/L	500	SW846 8260B	CW	05/12/2007
tertiaryAmylmethylether(TAME)	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007
tertiaryButylbenzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,1,1,2-Tetrachloroethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,1,2,2-Tetrachloroethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Tetrachloroethene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Tetrahydrofuran	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007
Toluene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
trans-1,2-Dichloroethene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
trans-1,3-Dichloropropene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
trans-1,4-Dichloro-2-butene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,2,3-Trichlorobenzene	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007
1,2,4-Trichlorobenzene	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007
1,1,1-Trichloroethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,1,2-Trichloroethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Trichloroethene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Trichlorofluoromethane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,2,3-Trichloropropane	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,2,3-Trimethylbenzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
1,2,4-Trimethylbenzene	27	ug/L	10	SW846 8260B	CW	05/12/2007
1,3,5-Trimethylbenzene	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Vinyl chloride	Not detected	ug/L	10	SW846 8260B	CW	05/12/2007
Xylenes(total)	Not detected	ug/L	30	SW846 8260B	CW	05/12/2007



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Sample Date: 05/04/2007
 Submit Date: 05/07/2007
 Report Date: 05/15/2007

To: McDowell & Associates
 21355 Hatcher Ave.
 Ferndale, MI 48220

BA Report Number: 92754
 BA Sample ID: BN08605

Project Name: 07-14031
 Project Number: 07-14031
 Sample ID: 15W-Dup

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
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DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by: *[Signature]*
 Date: 5/15/07

Elevated volatile dl due to sample matrix.



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To: McDowell & Associates
 21355 Hatcher Ave.
 Ferndale, MI 48220

Sample Date: 05/04/2007
 Submit Date: 05/07/2007
 Report Date: 05/14/2007

BA Report Number: 92754
 BA Sample ID: BN08606

Project Name: 07-14031
 Project Number: 07-14031
 Sample ID: 19W

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
PAH Analysis						
Acenaphthene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Acenaphthylene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Anthracene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Benzo(a)anthracene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Benzo(a)pyrene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Benzo(b)fluoranthene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Benzo(g,h,i)perylene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Benzo(k)fluoranthene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
2-Chloronaphthalene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Chrysene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Dibenzo(a,h)anthracene	Not detected	ug/L	2	EPA 625	RG	05/09/2007
Fluoranthene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Fluorene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	EPA 625	RG	05/09/2007
1-Methylnaphthalene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Phenanthrene	Not detected	ug/L	2	EPA 625	RG	05/09/2007
Pyrene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
PAH liquid GC/MS (extraction)	Extracted			3510/3550	LS	05/09/2007
Volatile Analysis						
Benzene	Not detected	ug/L	1	EPA 602	BY	05/11/2007
Ethylbenzene	Not detected	ug/L	1	EPA 602	BY	05/11/2007
Isopropylbenzene	Not detected	ug/L	1	EPA 602	BY	05/11/2007
n-Propylbenzene	Not detected	ug/L	1	EPA 602	BY	05/11/2007
Toluene	Not detected	ug/L	1	EPA 602	BY	05/11/2007
1,2,3-Trimethylbenzene	Not detected	ug/L	1	EPA 602	BY	05/11/2007
1,2,4-Trimethylbenzene	Not detected	ug/L	1	EPA 602	BY	05/11/2007
1,3,5-Trimethylbenzene	Not detected	ug/L	1	EPA 602	BY	05/11/2007
Aromatics(total)	Not detected	ug/L	3	EPA 602	BY	05/11/2007



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Sample Date: 05/04/2007
 Submit Date: 05/07/2007
 Report Date: 05/14/2007

To: McDowell & Associates
 21355 Hatcher Ave.
 Ferndale, MI 48220

BA Report Number: 92754
 BA Sample ID: BN08607

Project Name: 07-14031
 Project Number: 07-14031
 Sample ID: 23W

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
PNA Analysis						
Acenaphthene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Acenaphthylene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Anthracene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Benzo(a)anthracene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Benzo(a)pyrene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Benzo(b)fluoranthene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Benzo(g,h,i)perylene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Benzo(k)fluoranthene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
2-Chloronaphthalene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Chrysene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Dibenzo(a,h)anthracene	Not detected	ug/L	2	EPA 625	RG	05/09/2007
Fluoranthene	Not detected	ug/L	1	EPA 625	RG	05/09/2007
Fluorene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	EPA 625	RG	05/09/2007
2-Methylnaphthalene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
Phenanthrene	Not detected	ug/L	2	EPA 625	RG	05/09/2007
Pyrene	Not detected	ug/L	5	EPA 625	RG	05/09/2007
PNA liquid GC/MS (extraction)	Extracted			3510/3550	LS	05/09/2007
Volatile Analysis						
Benzene	Not detected	ug/L	1	EPA 602	BY	05/11/2007
Ethylbenzene	Not detected	ug/L	1	EPA 602	BY	05/11/2007
Isopropylbenzene	Not detected	ug/L	1	EPA 602	BY	05/11/2007
n-Propylbenzene	Not detected	ug/L	1	EPA 602	BY	05/11/2007
Toluene	Not detected	ug/L	1	EPA 602	BY	05/11/2007
1,2,3-Trimethylbenzene	Not detected	ug/L	1	EPA 602	BY	05/11/2007
1,2,4-Trimethylbenzene	Not detected	ug/L	1	EPA 602	BY	05/11/2007
1,3,5-Trimethylbenzene	Not detected	ug/L	1	EPA 602	BY	05/11/2007
Xylenes(total)	Not detected	ug/L	3	EPA 602	BY	05/11/2007



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 e-mail: bai-brighton@sbcglobal.net

Sample Date: 05/04/2007
 Submit Date: 05/07/2007
 Report Date: 05/14/2007

To: McDowell & Associates
 21355 Hatcher Ave.
 Ferndale, MI 48220

BA Report Number: 92754
 BA Sample ID: BN08607

Project Name: 07-14031
 Project Number: 07-14031
 Sample ID: 23W

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
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DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by: *utroask*
 Date: 05/15/07



Brighton Analytical, L.L.C.
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Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 05/04/2007
Submit Date: 05/07/2007
Report Date: 05/14/2007

To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

BA Report Number: 92754
BA Sample ID: BN08608

Project Name: 07-14031
Project Number: 07-14031
Sample ID: 31W

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis						
Acetone	Not detected	ug/L	20	SW846 8260B	CW	05/12/2007
Acrylonitrile	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Benzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Bromobenzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Bromochloromethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Bromodichloromethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Bromoform	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Bromomethane(Methyl Bromide)	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
2-Butanone (MEK)	Not detected	ug/L	5	SW846 8260B	CW	05/12/2007
Carbon disulfide	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Carbon tetrachloride	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Chlorobenzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Chloroethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Chloroform	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Chloromethane(Methyl Chloride)	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,2-Dibromo-3-Chloropropane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Dibromochloromethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,2-Dibromoethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Dibromomethane(Methylene Bromide)	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,2-Dichlorobenzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,3-Dichlorobenzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,4-Dichlorobenzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Dichlorodifluoromethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,1-Dichloroethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,2-Dichloroethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,1-Dichloroethene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,2-Dichloropropane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Diethyl ether	Not detected	ug/L	5	SW846 8260B	CW	05/12/2007



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To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

Sample Date: 05/04/2007
Submit Date: 05/07/2007
Report Date: 05/14/2007

BA Report Number: 92754
BA Sample ID: BN08608

Project Name: 07-14031
Project Number: 07-14031
Sample ID: 31W

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Diisopropyl Ether(DIPE)	Not detected	ug/L	5	SW846 8260B	CW	05/12/2007
Ethyl benzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Ethyltertiarybutylether(ETBE)	Not detected	ug/L	5	SW846 8260B	CW	05/12/2007
Hexachloroethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
2-Hexanone(Methyl Butyl Ketone)	Not detected	ug/L	5	SW846 8260B	CW	05/12/2007
Isopropylbenzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Methyl iodide(Iodomethane)	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Methyl(tert)butyl ether(MTBE)	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
4-Methyl-2-pentanone(MIBK)	Not detected	ug/L	5	SW846 8260B	CW	05/12/2007
Methylene chloride	Not detected	ug/L	5	SW846 8260B	CW	05/12/2007
2-Methylnaphthalene	Not detected	ug/L	5	SW846 8260B	CW	05/12/2007
Naphthalene	Not detected	ug/L	5	SW846 8260B	CW	05/12/2007
n-Butylbenzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
n-Propylbenzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
p-Isopropyl Toluene(p-Cymene)	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
sec-Butylbenzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Styrene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Tertiary Butyl Alcohol	Not detected	ug/L	50	SW846 8260B	CW	05/12/2007
tertiaryAmylmeylether(TAME)	Not detected	ug/L	5	SW846 8260B	CW	05/12/2007
tertiaryButylbenzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Tetrachloroethene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Tetrahydrofuran	Not detected	ug/L	5	SW846 8260B	CW	05/12/2007
Toluene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW846 8260B	CW	05/12/2007
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW846 8260B	CW	05/12/2007
1,1,1-Trichloroethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,1,2-Trichloroethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007



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Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 05/04/2007
Submit Date: 05/07/2007
Report Date: 05/14/2007

To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

BA Report Number: 92754
BA Sample ID: BN08608

Project Name: 07-14031
Project Number: 07-14031
Sample ID: 31W

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Trichloroethene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Trichlorofluoromethane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,2,3-Trichloropropane	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Vinyl chloride	Not detected	ug/L	1	SW846 8260B	CW	05/12/2007
Xylenes(total)	Not detected	ug/L	3	SW846 8260B	CW	05/12/2007

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by:

Date:

[Signature]
05/15/07



Brighton Analytical, L.L.C.™

2105 Pless Drive
Brighton, MI 48114

Phone: 810-229-7575
Fax: 810-229-8650

COMPANY NAME: McDowell & Associates

PROJECT NAME: 07-14031

PROJECT NUMBER: 07-14031

P. O. NUMBER:

REQUESTED TURNAROUND: (circle one)
Rush: 1-3 business days (specify with lab & specify date needed)
Expedited: 5 business days
Standard: 10 business days

IF RUSH,
approved by: _____

Sampling
Time Date

Sample Description

VOA'S (PREP) Y N

HDPE UNRESERVED
HDPE HNO₃
HDPE H₂SO₄
HDPE NaOH
AMBER
GLASS H₂SO₄
GLASS, NO PRESERVATIVE
KOH Present (Field or Lab Preserved)

Sample Matrix

FOR DISSOLVED METALS (L) LAB TO FILTER (F) FIELD FILTERED

18601 Trip Blank

2) 02 9W

3) 03 10W

4) 04 15W

5) 05 15W-Dup

6) 06 19W

7) 07 23W

8) 08 31W

9) _____

10) _____

11) _____

BA PROJECT #:

92754

ABBREVIATIONS FOR MATRIX

S = Solid
L = Liquid
DW = Drinking H₂O
WW = Wastewater
O = Oil
P = Wipe
A = Air (Tedlar Bag)
F = Filter
T = Tube
M = Methanol

Analysis Requested/Method

VOCs
PNAS
BTEX/TMB

PAGE

OF 1

REPORT RESULTS TO:

McDowell & Associates

via email

Attn: Jen Lagerbohm

PHONE:

FAX:

Sample received within holding time? yes no

For TCLP ONLY - Federal Limits Other

Samples intact: yes no (if no, see below)

Note samples if not intact:

Headspace/bubbles in VOA'S? yes no n/a

Sample containers and COC match? yes no

Comments:

Temperature of Samples °C: 7

Please fill out the Chain of Custody completely and review. Incorrect or incomplete information will result in a "hold" on all analyses.

Trans. #	RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:
1					3/1/07	8:52	3				
2					3/1/07	1615	4				

McDowell & Associates

Geotechnical, Environmental & Hydrogeological Services • Materials Testing & Inspection

21355 Hatcher Avenue • Ferndale, MI 48220
Phone: (248) 399-2066 • Fax: (248) 399-2157

January 11, 2008

Greater Grace Temple
23500 W. Seven Mile Road
Detroit, Michigan 48219

Job No. 07-14054

Attention: Mr. Martin Hardy

Subject: Response Activity Documentation
Two Remedial Areas East of the Clubhouse and
North of the Maintenance Building
Existing Golf Course
Berg Road, South of W. Seven Mile Road
Detroit, Wayne County, Michigan

Dear Mr. Hardy:

The purpose of this letter is to provide a description of response activities completed at the Rogell Golf Course at 18601 and 18690 Berg Road in Detroit, Wayne County, Michigan. This letter describes activities completed to address a former underground heating oil tank and impacted soil in its vicinity and in the vicinity of the former above ground diesel tanks and two former oil waste drums. A Site Location Map, which shows the approximate location of the subject property, accompanies this report as Attachment I.

One approximately 2,000-gallon underground heating oil tank and approximately 480 cubic yards of soil were removed from east of the clubhouse. Two approximately 250-gallon above ground diesel tanks, two 55-gallon drums, and approximately 480 cubic yards of soil were removed from the area of the maintenance building. Tanks, drums, and impacted soil were removed by Creative Land Design, LLC. Soil and scrap tanks and drums were disposed at Sauk Trail Hills Landfill in Canton, Michigan.

Confirmatory soil samples were obtained from the excavation floors and sidewalls in accordance with the MDEQ Sampling Strategies and Statistics Training Materials for Part 201 Cleanup Criteria (S³TM, 2002).

Results of confirmatory testing show no BTEX/TMB or PNAs were detected above MDEQ Generic Residential Criteria.

Following soil cleanup activities, one temporary monitoring well was installed at each of the areas and groundwater samples were obtained. Results of chemical testing show no BTEX/TMB or PNAs were detected above MDEQ Generic Residential Criteria.

Based on results of chemical testing, the excavations meet MDEQ Part 201 Cleanup Criteria for unrestricted residential use.

Mid-Michigan Office

3730 James Savage Road • Midland, MI 48642

This report was completed for the exclusive use of Greater Grace Temple, and they may rely on its contents.

The results of our investigation are presented below.

Background

McDowell & Associates completed a Phase I Environmental Site Assessment (ESA) for the subject property on April 20, 2007 (McDowell & Associates' Job No. 07-14025). That report identified several recognized environmental conditions (RECs) in connection with the subject property, which are summarized below.

- Registered 560-gallon gasoline UST.
- 2,000-gallon heating oil UST.
- Potential historic abandoned USTs.
- Two diesel ASTs.
- Two 55-gallon waste oil drums.
- Herbicide storage.
- Heating oil AST.
- Concentrated debris, stockpiled soil, and soil disturbances.
- Adjoining sites of interest.

McDowell & Associates completed a Phase II Environmental Site Assessment (ESA) for the subject property on May 21, 2007 (McDowell & Associates' Job No. 07-14031). The scope of work for that Phase II Environmental Site Assessment was developed to address the recognized environmental conditions (RECs) identified in McDowell & Associates' Phase I ESA.

As part of that assessment, 31 soil borings were made on the subject property. Eleven soil samples and eight groundwater samples were obtained and submitted for analytical chemistry testing. In addition, a geophysical survey was completed to investigate for potential abandoned USTs.

Results of chemistry testing show total chromium, acenaphthene, fluorene, phenanthrene, n-butylbenzene, ethylbenzene, 2-methylnaphthalene, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and xylenes were detected in one soil sample by the heating oil UST and two soil samples by the diesel ASTs and drums at concentrations above MDEQ Generic Residential Drinking Water and Groundwater/ Surface Water Interface (GSI) Groundwater Protection Criteria.

Ethylbenzene, fluorene, phenanthrene, and 1,2,4-trimethylbenzene were detected in groundwater samples obtained in the vicinity of a heating oil UST and by drums and diesel ASTs by the cart storage building at concentrations above MDEQ Generic GSI Criteria.

No evidence of contamination was encountered in the vicinity of the former 560-gallon registered UST, herbicidal storage area, heating oil AST, concentrated debris and soil disturbances, or from adjoining sites of interest.

No evidence of abandoned USTs was identified.

It was recommended that the concentrated debris and stockpiled soil in the vicinity of the maintenance building be removed and properly disposed.

The registered gasoline UST was removed in accordance with Part 211 of Michigan Public Act 451 as described in McDowell & Associates' Site Assessment Report dated December 17, 2007. No evidence of a release was encountered in the vicinity of the gasoline UST.

The purpose of the remedial activities summarized in this report was to:

1. Remove the 2,000-gallon heating oil UST and impacted soil east of the clubhouse.
2. Remove the two 55-gallon waste oil drums, two diesel ASTs, their contents, and impacted soil north of the maintenance building.

Field Work

McDowell & Associates performed field work on November 14, 15, 16, 20 and 29, 2007 and January 7, 2008. A summary of work performed on each day is presented below.

November 14, 2007

The approximate 2,000-gallon underground heating oil tank (the Former Heating Oil Tank) was pumped of its contents by Bucks Oil and the UST was removed from the ground.

November 15, 2007

McDowell & Associates observed Creative Land Design excavate approximately 400 cubic yards of soil from the vicinity of the Former Heating Oil Tank east of the clubhouse. Soil was transported by Jackie's Transport and disposed at Sauk Trail Hills in Canton Township, Michigan.

McDowell & Associates screened the excavation with a PID and soil was removed until no VOC vapors were detected.

Ten confirmatory soil samples, designated H-1 through H-10, were obtained from the excavation floor and sidewalls in accordance with the MDEQ S³™ for small sites.

The two above ground diesel tanks (the ASTs) and waste oil drums were pumped of their contents by Bucks Oil.

November 16, 2007

McDowell & Associates observed Creative Land Design excavate approximately 440 cubic yards from the vicinity of the ASTs and drums north of the maintenance building. Soil was transported by Jackie's Transport and disposed at Sauk Trail Hills in Canton Township, Michigan.

McDowell & Associates screened the excavation with a PID and soil was removed until no VOC vapors were detected.

Twelve confirmatory soil samples, designated D-1 through D-12, were obtained from the excavation floor and sidewalls in accordance with the MDEQ S³™ for small sites.

November 20, 2007

Based on results of initial testing from the area of the Former Heating Oil Tank which showed ethylbenzene, naphthalene, and 1,2,4-trimethylbenzene above MDEQ Generic Residential Criteria in H-3 and H-8, approximately 80 additional cubic yards of soil were removed from the excavation east of the clubhouse. Three additional confirmatory soil samples were obtained and designated H-11 through H-13.

November 29, 2007

Based on results of initial testing from the area of the former ASTs and drums which showed BTEX/TMB and PNAs in D-9, D-11, and D-12, approximately 40 additional cubic yards of soil were removed from the excavation north of the maintenance building. Three additional confirmatory soil samples were obtained and designated D-13 through D-15.

Copies of the waste disposal manifests provided to McDowell & Associates, accompany this report.

On January 7, 2008 McDowell & Associates completed one soil boring in the vicinity of each of the former excavations and installed temporary monitoring wells in each of the soil borings. Groundwater samples were obtained from each of the temporary monitoring wells and designated HW-1 and DW-1, respectively.

Confirmatory Soil Sample Location Maps, which show the approximate excavation extents and approximate locations from which confirmatory soil samples were obtained, accompany this report as Attachments II and III.

Confirmatory samples were placed in labeled, pre-cleaned glass jars and stored in an ice-chest until delivery to a representative of Brighton Analytical, LLC of Brighton, Michigan for chemical testing. Soil samples were preserved for VOC analysis in accordance with EPA Method 5035A. Groundwater samples were preserved in accordance with standard sampling protocols. Sample chain-of-custody documentation accompanies this report with chemical test results.

Prior to backfill of the excavations, Regensis Oxygen Release Compound (ORC Advanced) was applied to the excavation floors and sidewalls.

Chemical Testing Program

Based on results of chemical testing in McDowell & Associates' Phase II ESA, Confirmatory Samples H-1 through H-13, D-1 through D-15, HW-1, and DW-1 were subjected to tests to determine the presence of polynuclear aromatic hydrocarbons (PNAs, Methods 8270C-soil and 625-water), and BTEX/TMB (Methods 8021-soil and 602-water).

In addition, Soil Samples D-11 and D-12 were subjected to tests to determine the presence of trivalent and hexavalent chromium (Method 6020).

Chemical Test Results

The accompanying Tables 1 through 4 summarize chemical test results in comparison to MDEQ Generic Residential Criteria.

Ethylbenzene and isopropylbenzene were detected in H-2, 2-methylnaphthalene, naphthalene, phenanthrene, and 1,2,4-trimethylbenzene were detected in H-6, and 1,2,4-trimethylbenzene was detected in H-9, but at concentrations below MDEQ Generic Residential Criteria.

No other BTEX/TMB or PNAs were detected in any of the confirmatory soil samples.

Toluene was detected in DW-1, but at a concentration below MDEQ Generic Residential Criteria. No other BTEX/TMB or PNAs were detected in the groundwater samples.

Individual chemical test results accompany this report as Attachment IV.

Quality Assurance/ Quality Control

In general accordance with the MDEQ RRD Operational Memorandum No. 2: Sampling and Analysis, three duplicate soil samples, one methanol preservation blank sample, and one trip blank sample were obtained for quality assurance/quality control (QA/QC) purposes.

Duplicate sample results were similar to the corresponding soil sample, and are included in Attachment IV. No VOCs were detected in the field blank or trip blank sample.

Limitations

Property lines shown on maps are estimates and are limited by scale inaccuracies. The approximate boundaries shown on report attachments are not intended to be exact, but rather approximations to assist with review.

Conclusion

The purpose of this letter is to provide a description of response activities completed at the Rogell Golf Course at 18601 and 18690 Berg Road in Detroit, Wayne County, Michigan.

One approximately 2,000-gallon underground heating oil tank and approximately 480 cubic yards of soil were removed from east of the clubhouse. Two approximately 250-gallon above ground diesel tanks, two 55-gallon drums, and approximately 480 cubic yards of soil were removed from the area of the maintenance building. Tanks, drums, and impacted soil were removed by Creative Land Design, LLC. Soil and scrap tanks and drums were disposed at Sauk Trail Hills Landfill in Canton, Michigan.

Confirmatory soil samples were obtained from the excavation floors and sidewalls in accordance with the MDEQ Sampling Strategies and Statistics Training Materials for Part 201 Cleanup Criteria (S³TM, 2002).

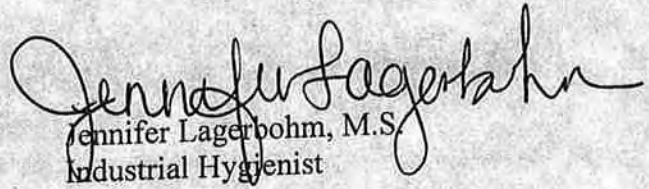
Results of confirmatory testing show no BTEX/TMB or PNAs were detected above MDEQ Generic Residential Criteria. Temporary monitoring wells were installed at each of the areas and groundwater samples were obtained. Results of chemical testing show no BTEX/TMB or PNAs were detected above MDEQ Generic Residential Criteria.

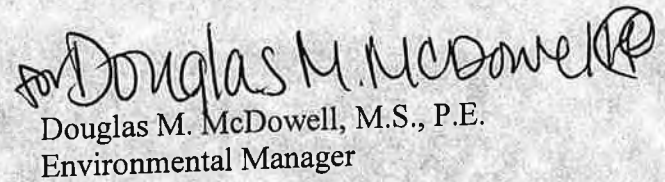
Based on results of chemical testing, previous impacted soil and groundwater in the vicinity of the tanks have been addressed. The excavations meet MDEQ Part 201 Cleanup Criteria for Generic Residential Closure and unrestricted residential use.

If you have any questions regarding the information contained in this report, or if we can be of further service, please do not hesitate to call.

Very truly yours,

McDOWELL & ASSOCIATES


Jennifer Lagerbohm, M.S.
Industrial Hygienist


Douglas M. McDowell, M.S., P.E.
Environmental Manager

JL/jb/def/nm

Attachments

- | | |
|---------|--|
| Table 1 | - Summary of Detected Confirmatory Organics Chemistry Results (Soil) |
| Table 2 | - Summary of Metals Chemistry Results (Soil) |
| Table 3 | - Summary of Detected Interim Organics Chemistry Results (Soil) |
| Table 4 | - Summary of Detected Organics Chemistry Results (Water) |
| I | - Site Location Map |
| II | - Confirmatory Sample Location Map – Former Heating Oil Tank |
| III | - Confirmatory Sample Location Map – Former Diesel ASTs and Drums |
| IV | - Chemical Test Results and Chain-of-Custody Documentation |
| V | - Site Assessment Report |
| VI | - Waste Disposal Manifests |

TABLE 1 - SUMMARY OF DETECTED CONFIRMATORY ORGANICS CHEMISTRY RESULTS (Soil)

Sample	Date	Description	Ethylbenzene 100414	Isopropylbenzene 98828	2-Methylnaphthalene 91576	Naphthalene 91203	Phenanthrene 85018	1,2,4-Trimethylbenzene 95636
H-1	11/15/2007	East of the Clubhouse	<50	<50	<250	<250	<330	<50
H-2	11/15/2007	East of the Clubhouse	170	<50	<250	<250	<330	<50
H-4	11/15/2007	East of the Clubhouse	<50	<50	<250	<250	<330	<50
H-4D	11/15/2007	East of the Clubhouse	<50	<50	<250	<250	<330	<50
H-5	11/15/2007	East of the Clubhouse	<50	<50	<250	<250	<330	<50
H-6	11/15/2007	East of the Clubhouse	<50	<50	2,300	370	660	59
H-7	11/15/2007	East of the Clubhouse	<50	<50	<250	<250	<330	<50
H-9	11/15/2007	East of the Clubhouse	<50	<50	<250	<250	<330	54
H-10	11/15/2007	East of the Clubhouse	<50	<50	<250	<250	<330	<50
H-11	11/20/2007	East of the Clubhouse	<50	<50	<250	<250	<330	<50
H-12	11/20/2007	East of the Clubhouse	<50	<50	<250	<250	<330	<50
H-13	11/20/2007	East of the Clubhouse	<50	<50	<250	<250	<330	<50
D-1	11/16/2007	North of the Maintenance Building	<50	<50	<250	<250	<330	<50
D-2	11/16/2007	North of the Maintenance Building	<50	<50	<250	<250	<330	<50
D-3	11/16/2007	North of the Maintenance Building	<50	<50	<250	<250	<330	<50
D-4	11/16/2007	North of the Maintenance Building	<50	<50	<250	<250	<330	<50
D-5	11/16/2007	North of the Maintenance Building	<50	<50	<250	<250	<330	<50
D-6	11/16/2007	North of the Maintenance Building	<50	<50	<250	<250	<330	<50
D-7	11/16/2007	North of the Maintenance Building	<50	<50	<250	<250	<330	<50
D-8	11/16/2007	North of the Maintenance Building	<50	<50	<250	<250	<330	<50
D-10	11/16/2007	North of the Maintenance Building	<50	<50	<250	<250	<330	<50
D-13	11/29/2007	North of the Maintenance Building	<50	<50	<250	<250	<330	<50
D-14	11/29/2007	North of the Maintenance Building	<50	<50	<250	<250	<330	<50
D-14D	11/29/2007	North of the Maintenance Building	<50	<50	<250	<250	<330	<50
D-15	11/29/2007	North of the Maintenance Building	<50	<50	<250	<250	<330	<50
MDEQ Generic Residential Direct Contact Criteria for Soil			140,000	390,000 (7)	8,100,000	16,000,000	1,600,000	110,000 (7)
MDEQ Generic Residential Ambient Air Inhalation Criteria for Soil			720,000	1,700,000	ID	300,000	160,000	21,000,000
MDEQ Generic Residential Indoor Air Inhalation Criteria for Soil			87,000	390,000 (7)	ID	250,000	2,800,000	110,000 (7)
MDEQ Generic Residential Groundwater Protection Criteria			1,500/360/140,000 (7)	91,000/ID/390,000 (7)	57,000/ID/5,500,000	35,000/870/2,100,000	56,000/5,300/1,100,000	2,100/570/110,000 (7)

NOTES:

- All values expressed in ug/kg
- MDEQ Generic Residential Direct Contact, Ambient Air, Indoor Air, and Groundwater Protection Criteria from Part 201 Generic Cleanup Criteria and Screening Levels "Soil: Residential and Commercial I" dated January 23, 2006.
- Groundwater Protection Criteria presented as DW, GSI, and GCC.
- Most rigorous of Ambient Air Criteria presented.
- "ID" = MDEQ indicates inadequate data to develop criterion.
- "NA" = MDEQ indicates criteria not applicable.
- MDEQ indicates comparative criterion "is a screening level based on the chemical-specific generic soil saturation concentration (C_{sat}) since the calculated risk-based criterion is greater than C_{sat}." Site specific evaluation may demonstrate that exceedances of these generic criteria are acceptable given future intended site use.
- Chemical Abstract Service (CAS) Numbers are presented below chemicals as provided by the MDEQ.

TABLE 2 - SUMMARY OF CONFIRMATORY METALS CHEMISTRY RESULTS (Soil)

Sample	Date	Description	Chromium VI 18540299	Chromium III 16065831
D-11	11/16/2007	North of the Maintenance Building	<0.50	18
D-12	11/16/2007	North of the Maintenance Building	<0.50	10
MDEQ Generic Statewide Default Background Levels			18	18
MDEQ Generic Residential Direct Contact Criteria			2,500	790,000
MDEQ Generic Residential Ambient Air Inhalation Criteria			260	330,000
MDEQ Generic Residential Groundwater Protection Criteria			30/3.3/140,000	1,000,000/ (7)/ 1,000,000

NOTES:

- All values expressed in mg/kg
- MDEQ Residential Generic Statewide Default Background, Direct Contact, Ambient Air Inhalation, and Groundwater Protection Criteria from Part 201 Generic Cleanup Criteria and Screening Levels "Soil: Residential and Commercial I" dated January 23, 2006.
- Most rigorous of Ambient Air Criteria presented. In Metals, most rigorous criteria are Particulate Soil Inhalation Criteria.
- Groundwater Protection Criteria presented as DW, GSI, and GCC.
- Chemical Abstract Service (CAS) Numbers are presented below chemicals as provided by the MDEQ.
- "ID" = MDEQ indicates inadequate data to develop criterion.
- MDEQ indicates that some chemical-specific GSI criteria are based upon the hardness of the receiving waters, and for the purpose of evaluating the potential need for remedial activities, the MDEQ allows an estimated hardness value of 150 mg/L to be used. Final determination of compliance with criteria must be based on site specific hardness.
- Boldface values exceed MDEQ Generic Statewide Default Background Levels.

TABLE 3- SUMMARY OF DETECTED INTERIM ORGANICS CHEMISTRY RESULTS (Soil)

Sample	Date	Description	Acenaphthene 83329	Anthracene 120127	Ethylbenzene 100414	Fluorene 86737	Isopropylbenzene 98828	2-Methylnaphthalene 91576	Naphthalene 91203
H-3	11/15/2007	East of the Clubhouse	<330	<330	570	<330	470	1,900	1,400
H-8	11/15/2007	East of the Clubhouse	<330	<330	2,300	<330	770	2,800	2,200
D-9	11/16/2007	North of the Maintenance Building	5,800	3,700	9,500	16,000	4,100	93,000	25,000
D-9D	11/16/2007	North of the Maintenance Building	1,800	1,200	5,600	5,100	2,200	29,000	78,000
D-11	11/16/2007	North of the Maintenance Building	1,700	1,000	1,800	4,000	1,500	37,000	6,300
D-12	11/16/2007	North of the Maintenance Building	330	<330	240	730	110	6,100	1,000
MDEQ Generic Residential Direct Contact Criteria for Soil			41,000,000	230,000,000	140,000	27,000,000	390,000 (7)	8,100,000	16,000,000
MDEQ Generic Residential Ambient Air Inhalation Criteria for Soil			81,000,000	1,400,000,000	720,000	130,000,000	1,700,000	ID	300,000
MDEQ Generic Residential Indoor Air Inhalation Criteria for Soil			190,000,000	1,000,000,000	87,000	580,000,000	390,000 (7)	ID	250,000
MDEQ Generic Residential Groundwater Protection Criteria			300,000/4,400/970,000	41,000/ID/41,000	1,500/360/140,000 (7)	390,000/5,300/890,000	91,000/ID/390,000 (7)	57,000/ID/5,500,000	35,000/870/2,100,000
Sample	Date	Description	n-Propylbenzene 103651	Phenanthrene 85018	Pyrene 129000	Toluene 108883	1,2,4-Trimethylbenzene 95636	1,3,5-Trimethylbenzene 108678	Xylenes 1330207
H-12	11/20/2007	East of the Clubhouse	810	<330	<330	<50	620	850	190
H-13	11/20/2007	East of the Clubhouse	1,000	<330	<330	<50	4,800	1,400	5,500
D-9	11/16/2007	North of the Maintenance Building	12,000	20,000	2,800	3,300	44,000	16,000	25,000
D-9D	11/16/2007	North of the Maintenance Building	8,000	6,200	850	1,500	24,000	8,300	14,000
D-11	11/16/2007	North of the Maintenance Building	2,500	6,300	590	<50	5,400	2,000	4,300
D-12	11/16/2007	North of the Maintenance Building	430	1,200	<330	<50	810	270	370
MDEQ Generic Residential Direct Contact Criteria for Soil			2,500,000	1,600,000	29,000,000	250,000	110,000 (7)	94,000 (7)	150,000
MDEQ Generic Residential Ambient Air Inhalation Criteria for Soil			1,300,000,000	160,000	650,000,000	2,800,000	21,000,000	16,000,000	46,000,000
MDEQ Generic Residential Indoor Air Inhalation Criteria for Soil			ID	2,800,000	1,000,000,000	250,000 (7)	110,000 (7)	94,000 (7)	150,000 (7)
MDEQ Generic Residential Groundwater Protection Criteria			1,600/NA/300,000	56,000/5,300/1,100,000	480,000/ID/480,000	16,000/2,800/250,000 (7)	2,100/570/110,000 (7)	1,800/1,100/94,000 (7)	5,600/700/150,000 (7)

NOTES:

- All values expressed in ug/kg
- MDEQ Generic Residential Direct Contact, Ambient Air, Indoor Air, and Groundwater Protection Criteria from Part 201 Generic Cleanup Criteria and Screening Levels "Soil: Residential and Commercial I" dated January 23, 2006.
- Groundwater Protection Criteria presented as DW, GSI, and GCC.
- Most rigorous of Ambient Air Criteria presented.
- "ID" = MDEQ indicates inadequate data to develop criterion.
- "NA" = MDEQ indicates criteria not applicable.
- MDEQ indicates comparative criterion "is a screening level based on the chemical-specific generic soil saturation concentration (C_{sat}) since the calculated risk-based criterion is greater than C_{sat}." Site specific evaluation may demonstrate that exceedances of these generic criteria are acceptable given future intended site use.
- Chemical Abstract Service (CAS) Numbers are presented below chemicals as provided by the MDEQ.
- Boldfaced values exceed current Groundwater Protection Criteria.

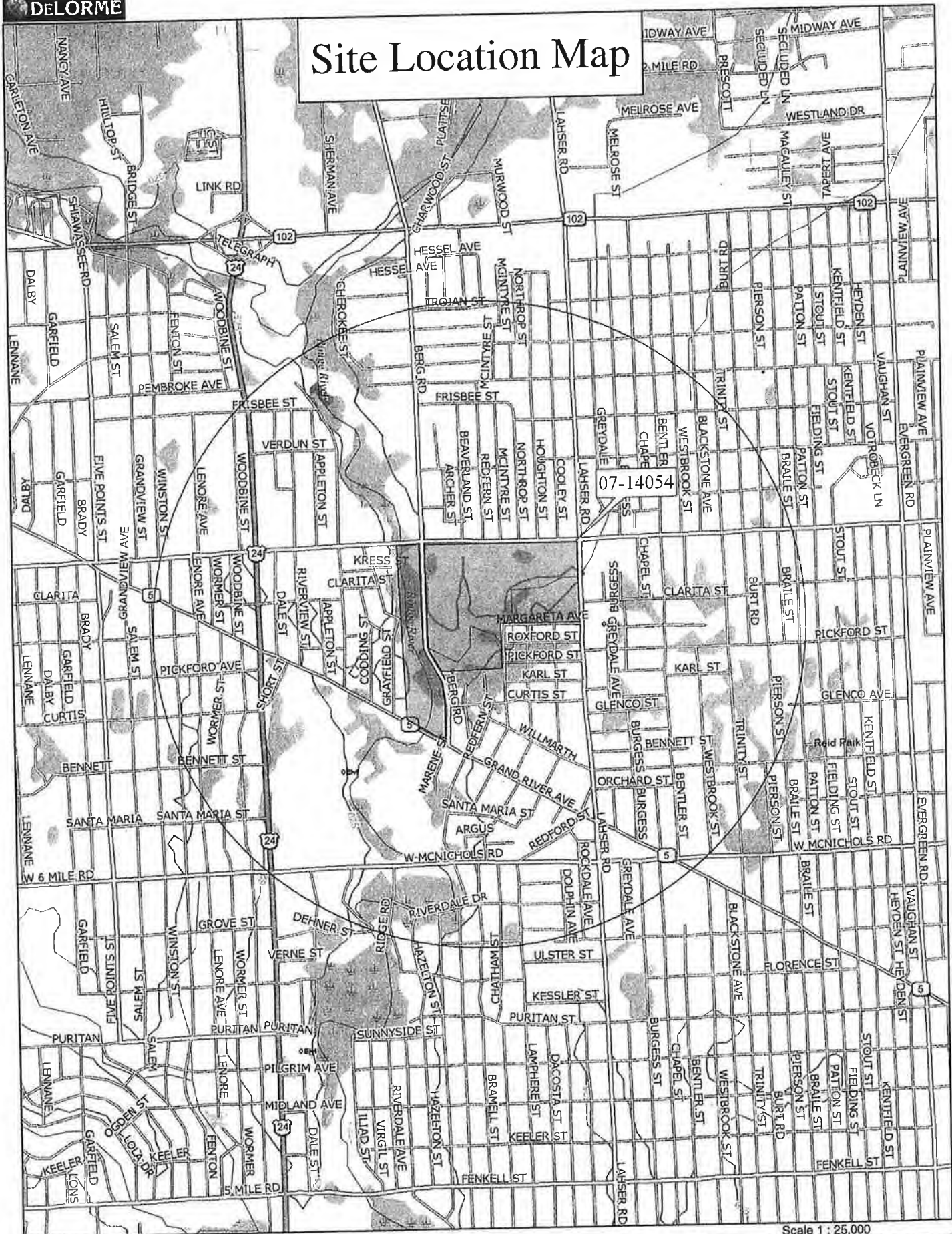
TABLE 4 - SUMMARY OF DETECTED ORGANICS CHEMISTRY RESULTS (Water)

Sample	Date	Description	Toluene 108883
HW-1	1/7/2008	East of the Clubhouse	<1
DW-1	1/7/2008	North of the Maintenance Building	1
MDEQ Generic Residential Drinking Water Criteria			790
MDEQ Generic Residential Groundwater Surface Water Interface (GSI) Criteria			140
MDEQ Generic Residential Indoor Air Inhalation Criteria			530,000
MDEQ Generic Residential Groundwater Contact Criteria			530,000
Flammability and Explosivity Screening Level			61,000
Acute Inhalation Screening Level			ID

NOTES:

- All values expressed in ug/L.
- MDEQ Generic Residential Drinking Water, GSI, Indoor Air, and Groundwater Contact Criteria and Flammability, Explosivity and Acute Inhalation Screening Levels from Part 201 Generic Cleanup Criteria and Screening Levels "Groundwater: Residential and Industrial-Commercial" dated January 23, 2006.
- "ID" = MDEQ indicates inadequate data to develop criterion.
- Chemical Abstract Service (CAS) Numbers are presented below chemicals as provided by the MDEQ.

Site Location Map



Data use subject to license.

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www.delorme.com

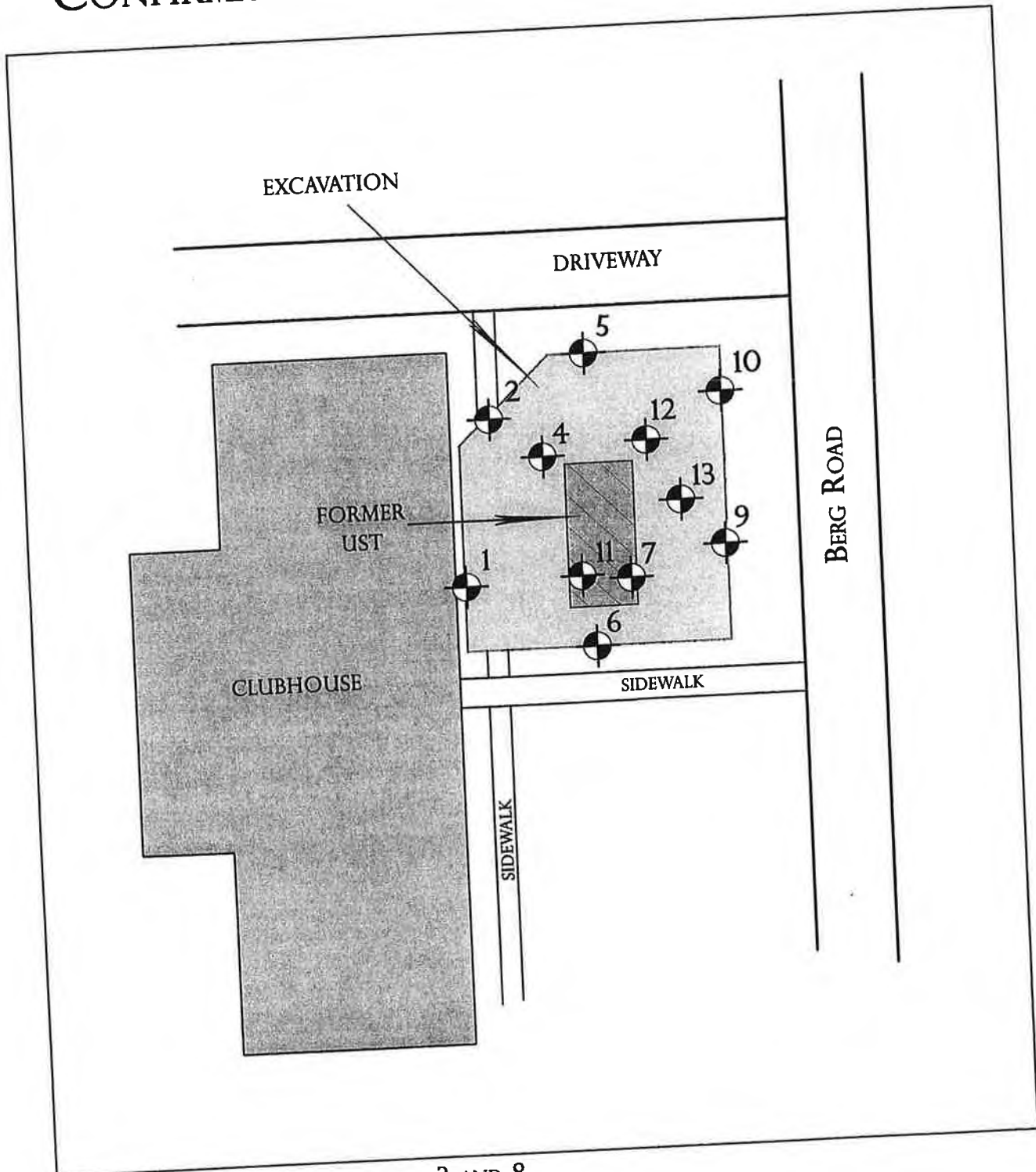


Scale 1 : 25,000



1" = 2,083.3 ft Data Zoom 13-0

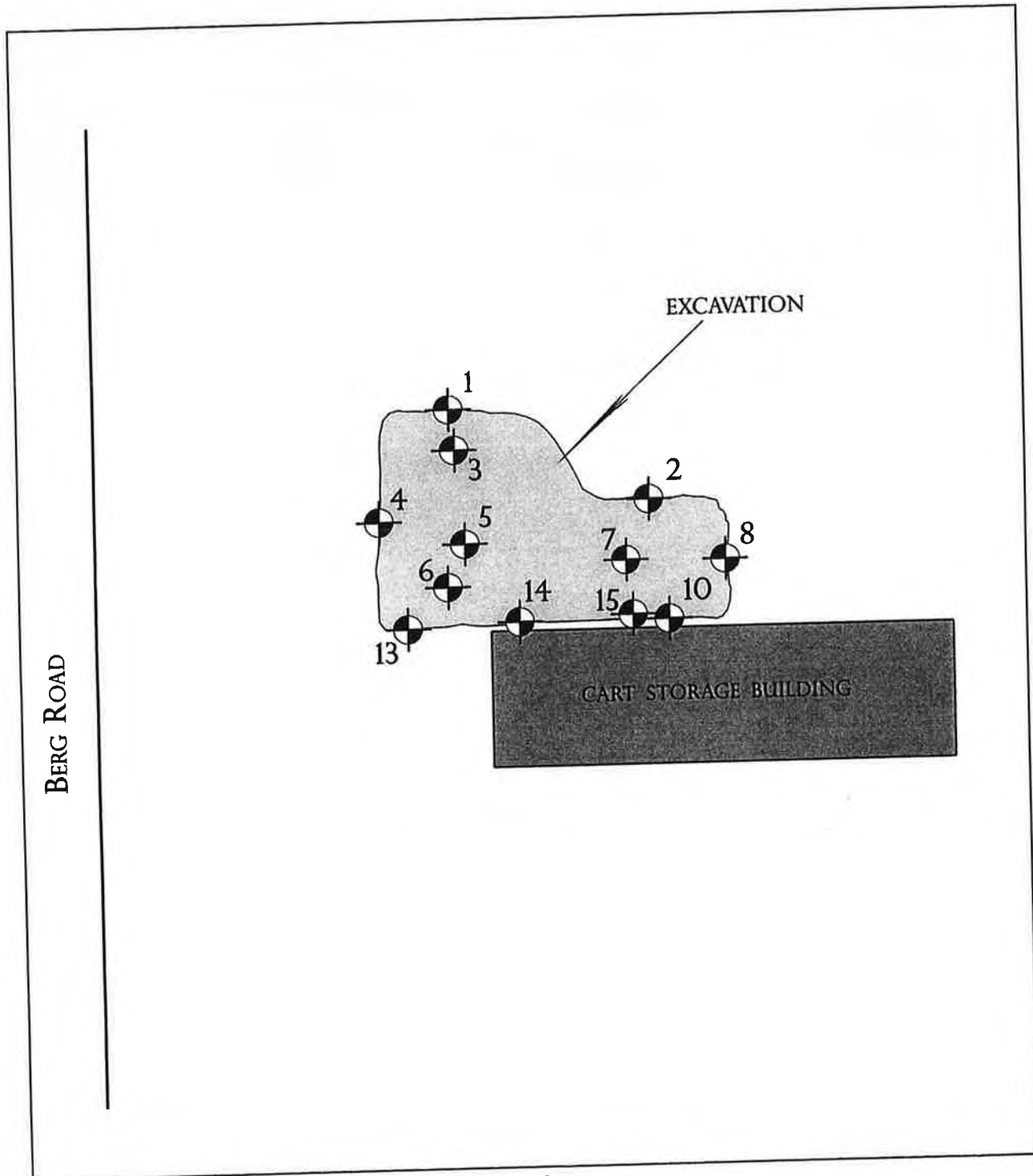
CONFIRMATORY SOIL SAMPLE LOCATION MAP



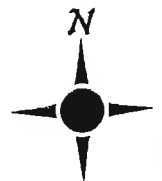
NOTE: SOIL REPRESENTED BY SAMPLES 3 AND 8 WAS SUBSEQUENTLY REMOVED.



CONFIRMATORY SOIL SAMPLE LOCATION MAP



NOTE: SOIL REPRESENTED BY SAMPLES 9, 11 AND 12 WAS SUBSEQUENTLY REMOVED.





mailed 12/17/07

UNDERGROUND STORAGE TANK SYSTEM SITE ASSESSMENT REPORT AND CLOSURE OR CHANGE-IN-SERVICE REGISTRATION FORM

This information is required under Part 211, Underground Storage Tank Regulations, of the Natural Resources and Environmental Protection Act, Act 451 of the Public Acts of 1994, being Sections 324.21101 to 324.21113 of the Michigan Compiled Laws Annotated. Any owner who knowingly fails to notify or submits false information shall be subject to a misdemeanor and/or civil penalties not to exceed \$5000 per day for each tank for which notification is not given or for which false information is submitted.

INSTRUCTIONS: For permanent closure and change-in-service, complete all the information on this form and submit with the site assessment analytical results, chain of custody and site sketch which indicates the location and depths of tanks, piping, and samples. This form must be received within 45 days of the samples being taken. The owner is required to keep a copy of the site assessment report for a minimum of three years. See reverse side of this form for additional information.	FACILITY ID NUMBER 00019067
---	---------------------------------------

I. OWNERSHIP OF TANKS			II. LOCATION OF TANKS		
NAME OF OWNER (CORPORATION, INDIVIDUAL, ETC.) Greater Grace Temple			FACILITY NAME OR COMPANY SITE IDENTIFIER Rogell Golf Course		
STREET ADDRESS 23500 W. Seven Mile Road			STREET ADDRESS (PO BOX NOT ACCEPTABLE) 18690 Berg Road		
CITY Detroit	STATE MI	ZIP CODE 48219	CITY Detroit	STATE MI	ZIP CODE 48226
AREA CODE & TELEPHONE NUMBER 313-543-6071			CONTACT PERSON FOR LOCATION Martin Hardy	AREA CODE & TELEPHONE NUMBER 313-543-6071	

III. TANK INFORMATION					
TANK NUMBER	1				
TANK SIZE	550 gallons				
SUBSTANCE STORED	gasoline				
DATE LAST USED	2006				
DATE CLOSED	11/14/2007				
REMOVED FROM GROUND	11/14/2007				
CLOSED IN PLACE (INDICATE TYPE OF FILL)	NA				
CHANGE-IN-SERVICE	NA				
OWNER'S NAME Mr. Martin Hardy	OWNER'S SIGNATURE <i>Martin Hardy</i>		DATE 12/11/07		

IV. SUBMITTER INFORMATION		
SUBMITTED BY (COMPANY NAME) McDowell & Associates, Ferndale, MI		NAME (INDIVIDUAL) Mr. Douglas M. McDowell, M.S., P.E.
SIGNATURE <i>[Signature]</i>	DATE 12/17/07	AREA CODE & TELEPHONE NUMBER 248-399-2066

DO NOT WRITE BELOW THIS LINE (FOR OFFICE USE ONLY)

SITE ASSESSMENT REVIEW REPORT

Our site assessment has been reviewed by the Storage Tank Unit staff and the following determination has been made:

- 1 The contamination concentration is below the threshold detection levels, and there is no evidence of a confirmed release.
- 1 The test methodology or level of detection is faulty. The data submitted is not considered valid. Please perform another site assessment and forward a copy of the results to this office within 45 days.
- 1 The number of sampling points analyzed are considered inadequate to make a determination of the cleanliness of the site. Please perform another site assessment and forward a copy of the results to this office within 45 days.
- 1 The contaminant concentrations are greater than the threshold detection levels and there is evidence of a confirmed release. A confirmed release report is being generated. Follow reporting requirements in accordance with 451 PA 1994, Part 213, as amended.
- 1 The soils excavated and removed from the site were greater than allowable volumes. A confirmed release was not reported to this office within 24 hours per the Michigan Underground Storage Tank Rules (MUSTR) prior to excavation of contaminated soil. A confirmed release report is being generated. Follow reporting requirements in accordance with 451 PA 1994, Part 213, as amended.

SIGNATURE OF REVIEWER	DATE OF REVIEW
-----------------------	----------------



INSTRUCTIONS FOR FORM EQP3881 SITE ASSESSMENT PROCEDURES

The Michigan Underground Storage Tank Rules (MUSTR), 1999 AACS R 29.2101 et seq., require a site assessment when an underground storage tank (UST) or associated piping is removed, closed in place (when permitted), or undergoes a change-in-service. If you report a confirmed release, this site assessment report is not required. Samples must be taken by personnel qualified in the sampling and preservation protocols using generally accepted sampling procedures. For most owners and operators, an environmental consultant will be needed to perform this assessment. To locate a qualified person in your area, look in the Yellow Pages under Engineers: environmental or geotechnical. The following is a guide for performing a site assessment as required in the MUSTR. The section numbers below refer to the MUSTR sections.

TANK SAMPLE LOCATIONS--Section 280.72(d).

Two soil borings shall be taken as close as practical to the tank, but not more than 5 feet from the tank. One boring shall be taken at each end of the tank, but not more than 2 feet below the bottom of the tank and boring shall be taken at the bottom of each end of the tank. OR

One discrete sample shall be taken from the excavation floor underneath the fill pipe area for each tank removed and one discrete sample shall be taken from the excavation floor underneath the opposite end of the tank. One water sample shall be taken if the entire floor of the excavation is covered with water. If the excavation is partially covered with water, take one water sample and one soil sample.

PIPING AND DISPENSER SAMPLE LOCATIONS--Section 280.72(f).

A site assessment for piping shall be performed after emptying and purging the piping run or after the removal of piping. The site assessment shall consist of one discrete sample for every 30 feet of the underground piping run, starting at the dispenser location or the furthest point from the tank and moving towards the tank.

SAMPLE ANALYSES--Section 280.72(g).

Samples shall be analyzed using an appropriate method listed in the United States Environmental Protection Agency standard entitled "Test Methods for Evaluating Solid Waste"; Physical/Chemical Methods, "SW-846" document or other method approved by the Waste and Hazardous Materials Division (WHMD). Note the following:

- Gasoline, JP4, and jet B shall be tested for BTEX (benzene, toluene, ethylbenzene, and xylenes). Methods include, but are not limited to: 8021 and 8260.
- Diesel, fuel oil, kerosene, virgin motor oil, jet A, and JP5 shall be tested for PNAs (polynuclear aromatic hydrocarbons). Methods include, but are not limited to 8310 and 8270. Chlorinated solvents, ketones, ethers, mineral spirits, stoddard solvents, and naphthas may use Method 8260. Azeotropic distillation or closed-system vacuum distillation introduction may be necessary for certain compounds.
- Waste oils and heavier oils may use Method 8015 with an appropriate standard based on the analyte. If solvents comprise part of the waste oil, Method 8260 shall also be applied.
- Preservation in accordance with SW-846 Method 5036 shall be utilized for volatile soil samples in conformity with STD Informational Memorandum No. 13.
- Analytical results shall include the method used for the analysis and the chain of custody of the sample(s) with the temperature of the samples when received at the laboratory.

For regulated and hazardous substances not listed above, please contact the Storage Tank Unit (STU) of the WHMD at 517-335-7211 for guidance in choosing appropriate analytical methods.

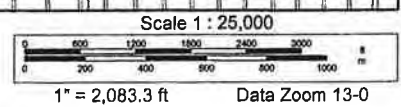
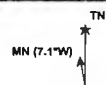
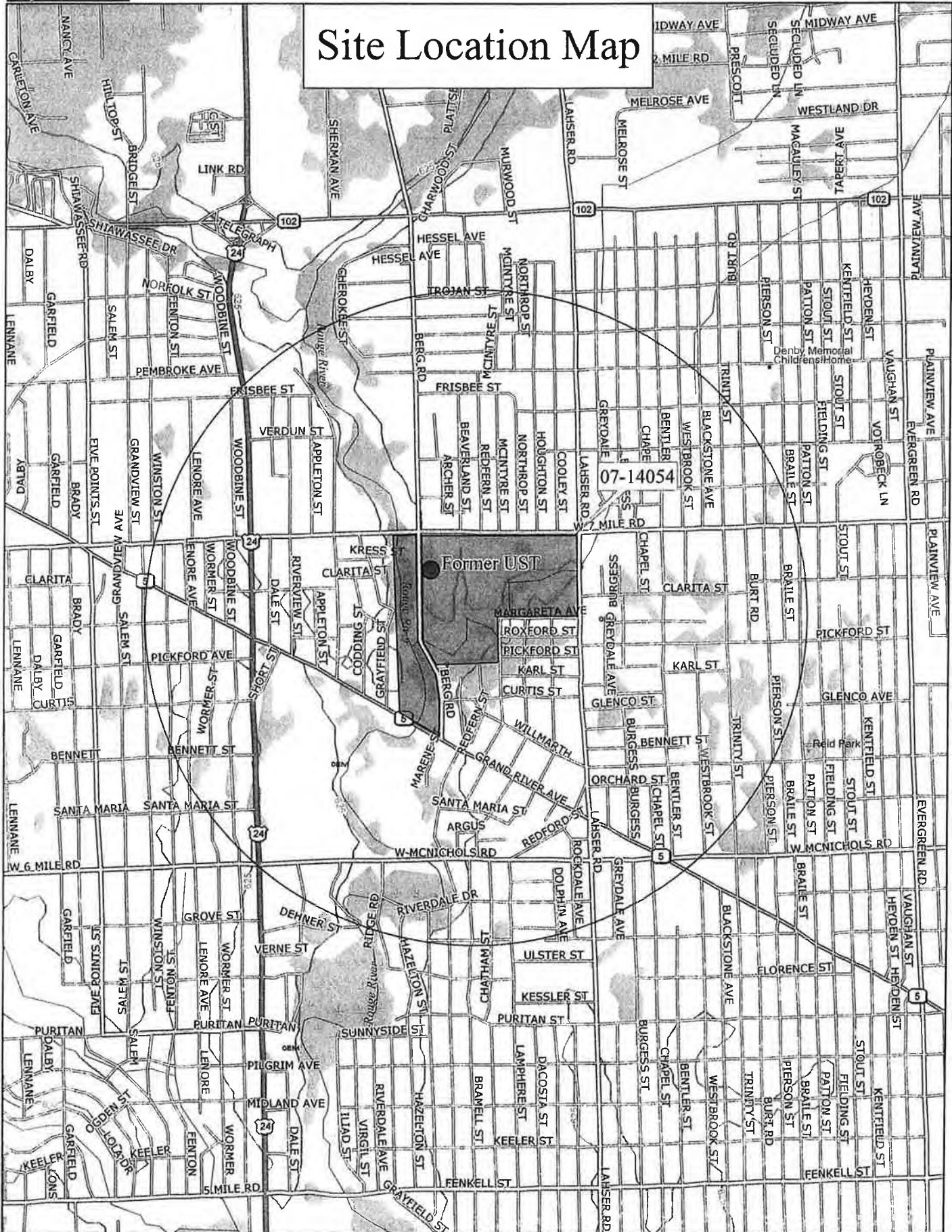
REPORTING CONTAMINATION

If you find visible or olfactory evidence of contamination in the UST excavation or along pipe runs, or if your analytical results show contamination, you must report a confirmed release to the STU by telephone to 800-MICH-UST (within Michigan), 517-335-2690 (outside Michigan), or by fax using form EQP3826 to 517-335-2245 within 24 hours of discovery of the contamination or by submitting form EQP3826 over the internet. If you report a confirmed release, this site assessment report is not required.

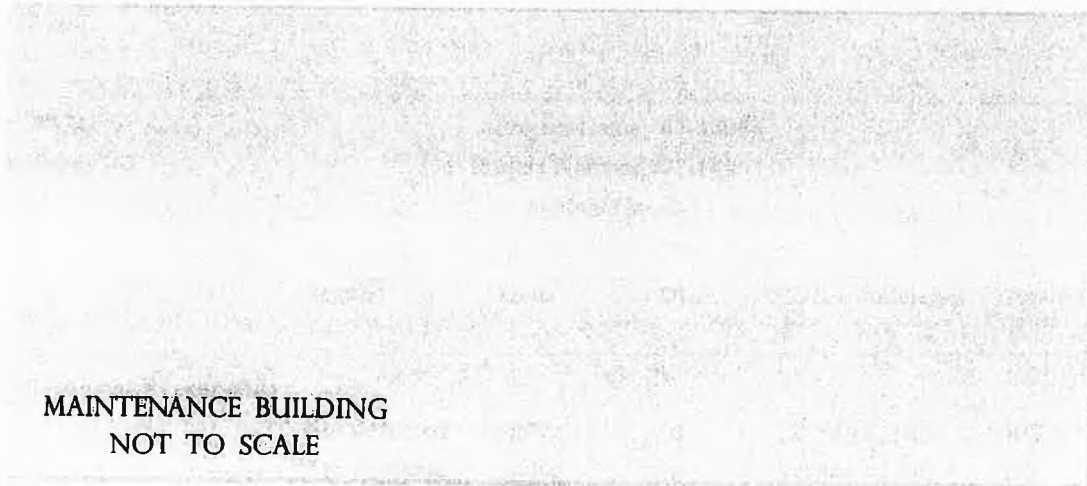
The form EQP3826 can be accessed from the DEQ web site at <http://www.deq.state.mi.us/docucenter/> under the forms section. "Visible evidence" means presence of a product sheen on water or stained soils. "Olfactory evidence" means the smell of product odors in soils or water within the tank or pipe excavation. Positive indication from field monitoring equipment such as H-Nu meters, organic vapor analyzers, or combustible gas detectors constitutes a suspected release. However, you may report a confirmed release anytime you believe one has occurred.

After confirmation of a release, the liable owner/operator has obligations pursuant to Part 213, Leaking Underground Storage Tanks, of the NREPA for initial response actions, site investigations and cleanup (corrective action). The corrective action activities require the use of a Qualified Underground Storage Tank Consultant defined under Section 21542 of Part 215, Underground Storage Tank Financial Assurance, of the NREPA. For a listing of qualified consultants, you may contact the Remediation and Redevelopment Division at 517-373-9837.

Site Location Map




SAMPLE LOCATION MAP



MAINTENANCE BUILDING
NOT TO SCALE

FORMER VENT PIPE



G-3 

FORMER DISPENSER



FORMER 560-GALLON
GASOLINE UST

SCALE
= 5'

 APPROXIMATE CONFIRMATORY SOIL SAMPLE
 APPROXIMATE PROPERTY BOUNDARY





Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
 e-mail: bai-brighton@sbcglobal.net

To: McDowell & Associates
 21355 Hatcher Ave.
 Ferndale, MI 48220

Sample Date: 11/14/2007
 Submit Date: 11/14/2007
 Report Date: 11/20/2007

BA Report Number: **95741**
 BA Sample ID: **BO09762**

Project Name: **07-14054**
 Project Number: **07-14054**
 Sample ID: **G-1**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis(Methanol Preserved)						
Benzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Ethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Isopropylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
2-Methylnaphthalene	Not detected	ug/Kg	250	SW846 8260B	RG	11/19/2007
MTBE	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Naphthalene	Not detected	ug/Kg	250	SW846 8260B	RG	11/19/2007
n-Propylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Toluene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,2,3-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,2,4-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,3,5-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Xylenes(total)	Not detected	ug/Kg	150	SW846 8260B	RG	11/19/2007
EPA Method 5035 Methanol Preserv	Extracted			EPA 5035	MCD	11/14/2007
%Solid	94	%		ASTM D-2216	GW	11/19/2007

All soil results based on dry weight.

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by:

Date:

Ultrasec
 11/20/07



Brighton Analytical, L.L.C.

2105 Pless Drive

Brighton, Michigan 48116

Phone: (810) 229-7575 FAX: (810) 229-8650

e-mail: bai-brighton@sbcglobal.net

To: McDowell & Associates

21355 Hatcher Ave.

Ferndale, MI 48220

Sample Date: 11/14/2007

Submit Date: 11/14/2007

Report Date: 11/20/2007

BA Report Number: 95741

BA Sample ID: BO09763

Project Name: 07-14054

Project Number: 07-14054

Sample ID: G-2

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis(Methanol Preserved)						
Benzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Ethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Isopropylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
2-Methylnaphthalene	Not detected	ug/Kg	250	SW846 8260B	RG	11/19/2007
MTBE	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Naphthalene	Not detected	ug/Kg	250	SW846 8260B	RG	11/19/2007
n-Propylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Toluene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,2,3-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,2,4-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,3,5-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Xylenes(total)	Not detected	ug/Kg	150	SW846 8260B	RG	11/19/2007
EPA Method 5035 Methanol Preserv	Extracted			EPA 5035	MCD	11/14/2007
%Solid	84	%		ASTM D-2216	GW	11/19/2007

All soil results based on dry weight.

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by:

Date:

utpoul
11/20/07



Brighton Analytical, L.L.C.
 2105 Pless Drive
 Brighton, Michigan 48116
 Phone: (810) 229-7575 FAX: (810) 229-8650
 e-mail: bai-brighton@sbcglobal.net

To: McDowell & Associates
 21355 Hatcher Ave.
 Ferndale, MI 48220

Sample Date: 11/14/2007
 Submit Date: 11/14/2007
 Report Date: 11/20/2007

BA Report Number: 95741
 BA Sample ID: BO09764

Project Name: 07-14054
 Project Number: 07-14054
 Sample ID: G-3

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis(Methanol Preserved)						
Benzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Ethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Isopropylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
2-Methylnaphthalene	Not detected	ug/Kg	250	SW846 8260B	RG	11/19/2007
MTBE	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Naphthalene	Not detected	ug/Kg	250	SW846 8260B	RG	11/19/2007
n-Propylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Toluene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,2,3-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,2,4-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,3,5-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Xylenes(total)	Not detected	ug/Kg	150	SW846 8260B	RG	11/19/2007
EPA Method 5035 Methanol Preserv	Extracted			EPA 5035	MCD	11/14/2007
%Solid	92	%		ASTM D-2216	GW	11/19/2007

All soil results based on dry weight.

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by:

Date:

astropch
 11/20/07



Brighton Analytical, L.L.C.
 2105 Pless Drive
 Brighton, Michigan 48116
 Phone: (810) 229-7575 FAX: (810) 229-8650
 e-mail: bai-brighton@sbcglobal.net

To: McDowell & Associates
 21355 Hatcher Ave.
 Ferndale, MI 48220

Sample Date: 11/14/2007
 Submit Date: 11/14/2007
 Report Date: 11/20/2007

Report Number: 95741
 BA Sample ID: BO09765

Project Name: 07-14054
 Project Number: 07-14054
 Sample ID: G-1D

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Soil Analysis (Methanol Preserved)						
Acetone	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Benzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Ethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Propylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Methylnaphthalene	Not detected	ug/Kg	250	SW846 8260B	RG	11/19/2007
TBE	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Naphthalene	Not detected	ug/Kg	250	SW846 8260B	RG	11/19/2007
Propylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Styrene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,3-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,4-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,5-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Aromatics (total)	Not detected	ug/Kg	150	SW846 8260B	RG	11/19/2007
PA Method 5035 Methanol Preserv	Extracted			EPA 5035	MCD	11/14/2007
Soil	94	%		ASTM D-2216	GW	11/19/2007

Soil results based on dry weight.

L=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated report detection limits (TDL).

Released by:

Date:

W. Joseph
 11/20/07

To: McDowell & Associates
21355 Hatcher Ave.
Ferndale, MI 48220

Sample Date: 11/14/2007
Submit Date: 11/14/2007
Report Date: 11/20/2007

BA Report Number: 95741
BA Sample ID: BO09766

Project Name: 07-14054
Project Number: 07-14054
Sample ID: MeOH Blk

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis(Methanol Preserved)						
Benzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Ethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Isopropylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
2-Methylnaphthalene	Not detected	ug/Kg	250	SW846 8260B	RG	11/19/2007
MTBE	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Naphthalene	Not detected	ug/Kg	250	SW846 8260B	RG	11/19/2007
n-Propylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Toluene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,2,3-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,2,4-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
1,3,5-Trimethylbenzene	Not detected	ug/Kg	50	SW846 8260B	RG	11/19/2007
Xylenes(total)	Not detected	ug/Kg	150	SW846 8260B	RG	11/19/2007

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by:

Date:

Autopick
11/20/07

To: McDowell & Associates

21355 Hatcher Ave.

Ferndale, MI 48220

Sample Date: 11/14/2007

Submit Date: 11/14/2007

Report Date: 11/20/2007

BA Report Number: 95741

BA Sample ID: BO09767

Project Name: 07-14054

Project Number: 07-14054

Sample ID: Trip Blank

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Volatile Analysis						
Benzene	Not detected	ug/L	1	SW846 8260B	RG	11/19/2007
Ethylbenzene	Not detected	ug/L	1	SW846 8260B	RG	11/19/2007
Isopropylbenzene	Not detected	ug/L	1	SW846 8260B	RG	11/19/2007
2-Methylnaphthalene	Not detected	ug/L	5	SW846 8260B	RG	11/19/2007
MTBE	Not detected	ug/L	1	SW846 8260B	RG	11/19/2007
Naphthalene	Not detected	ug/L	5	SW846 8260B	RG	11/19/2007
n-Propylbenzene	Not detected	ug/L	1	SW846 8260B	RG	11/19/2007
Toluene	Not detected	ug/L	1	SW846 8260B	RG	11/19/2007
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW846 8260B	RG	11/19/2007
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW846 8260B	RG	11/19/2007
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW846 8260B	RG	11/19/2007
Xylenes(total)	Not detected	ug/L	3	SW846 8260B	RG	11/19/2007

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDEQ designated target detection limits (TDL).

Released by:

Date:

UETOPUL
11/20/07



Brighton Analytical, L.L.C.™
 2105 Pless Drive
 Brighton, MI 48114
 Phone: 810-229-7575
 Fax: 810-229-8650

COMPANY NAME: McDowell & Associates
 PROJECT NAME: 07-14054
 PROJECT NUMBER: 07-14054

P. O. NUMBER:

REQUESTED TURNAROUND: (circle one)
 Rush: 1-3 business days (verify with lab & specify date needed)
 Expedited: 5 business days
 Standard: 10 business days

IF RUSH, approved by: _____
 Sampling Time Date
11/14/07

Brighton ID #	Sample Description	Sampling Time	Date
1) 47162	G-1		11/14/07
2) 603	G-2		
3) 604	G-3		
4) 605	G-1D		
5) 606	MEOTHBK		
6) 607	TRIP BLK		
7)			
8)			
9)			
10)			
11)			

BA PROJECT #: 9574
 ABBREVIATIONS FOR MATRIX
 S = Solid
 L = Liquid
 DW = Drinking H₂O
 WW = Wastewater
 O = Oil
 P = Wipe
 A = Air (Tedlar Bag)
 F = Filter
 T = Tube
 M = Methanol

Container Type & Quantity

VOA'S (PRES)	Y	N	HDPE UNPRESERVED	HDPE HNO ₃	HDPE H ₂ SO ₄	HDPE NaOH	AMBER	GLASS H ₂ SO ₄	GLASS, NO PRESERVATIVE	MBOD Preserved (F) Field (L) Lab Preserved

Analysis Requested/Method

Sample Matrix
FOR DISSOLVED METALS (L) LAB TO FILTER (F) FIELD FILTERED
gastline parameters

TRANS

Comments:
MEETHBK
TRIP BLK
(4) need

Analysis only was per
Tankave. 11/15/07
Temperature of Samples °C: 16

PAGE 1 OF 1

REPORT RESULTS TO:

McDowell & Associates

Attn: Jen Lagerbom

PHONE: VIA email

FAX: VIA email

Sample received within holding time? yes no

For TCLP ONLY - Federal Limits Other

Samples intact: yes no (if no, see below)

Note samples if not intact:

Headspace/bubbles in VOA'S? yes no n/a

Sample containers and COC match? yes no

Please fill out the Chain of Custody completely and review. Incorrect or incomplete information will result in a "hold" on all analyses.

Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:
1	<u>Jen Lagerbom</u>	<u>Jen Lagerbom</u>	<u>11/14/07</u>	<u>1430</u>	3				
2	<u>Jen Lagerbom</u>	<u>Jen Lagerbom</u>	<u>11/14/07</u>	<u>1540</u>	4				

Hold till Spring
Mulligan

12-17-54 - closed Hold
for till Spring
Mulligan

4/26/55 - NOT COMPLETED

6-1-51 NC Peak

November 23, 1954

9/22/55

Drum removed they have installed
1-500 gal U.S tank Hand Pump
Leak

John J. Considine, General Superintendent
Parks & Recreation Commission
Third Floor Griswold Building
Detroit 26, Michigan

file

Dear Sir:

This department recently made an inspection of
the premises at 16601 Berg Road, occupied by the
Redford Golf Club.

A drum of gasoline was found stored in the Maint-
enance Building. This is a violation of the Flammable
Liquids Ordinance and the drum should be removed at
once.

It is recommended that the gasoline be stored out-
side of the building in an area that is fenced in and
supervised. If quantities of this amount are regularly
required, an approved underground tank should be
installed.

F-500 1 1/4 tank
H.P.
Oct 53

Very truly yours,

Matthew H. McNally
Fire Marshal

MHMcN/BFDeC/k
cc: Warren D. Wilt
Safety coordinator

OK TO FILE

OVER

wo 26570

City of Detroit

DEPARTMENT OF BUILDINGS AND SAFETY ENGINEERING
 112 E. Jefferson Avenue Woodward 5-3000 Detroit 26, Michigan

Application for Installation of Flammable Liquid Storage Tanks — Underground

Date 7-13-55

Occupant Redford Golf Course Address 18601 Berg Rd.
 Contractor City of Detroit DPW Address 3434 Russell St.
 Owner of Property Parks & Rec. Address 735 Randolph

ADDRESS OF INSTALLATION 18601 Berg Rd. Street
 Between 7 Mile Rd. and Curtis

Lot Number _____ Subdivision _____
 Nature of Business City Equipment Location of Pumps (512.4) Outside
(Outside or in fireproof room)

Description of Tanks and Liquids:

NUMBER	DIMENSIONS	CAPACITY (GALLONS)	KIND OF LIQUID	FLASH POINT F.
1. <u>1</u>	<u>48 x 68"</u>	<u>500</u>	<u>Gasoline</u>	_____
2. _____	_____	_____	_____	_____
3. _____	_____	_____	_____	_____

CONSTRUCTION (718.) _____

Are Tanks New or Used New Do Tanks Bear Underwriter's Label? Yes
UNLABELED OR USED TANKS SHALL BEAR A PERMANENT IDENTIFYING SYMBOL. SUCH TANKS SHALL BE INSPECTED, TESTED AND APPROVED BY THE BUREAU OF SAFETY ENGINEERING BEFORE INSTALLATION.

Is Installation New, Addition, or Replacement New

Number, Size and Disposition of Replaced Tanks _____

LOCATION:

Under building? No Under driveways, etc. subject to heavy loads? (717) No
 Distance to nearest private property line, basement or pit (716.2) In Golf Course
 Distance to nearest foundation (716.4) 3 Ft. Distance below ground (717.1) 3 Ft.
 Is installation within 300' of mine opening? (716.1) No Will test well be installed? (716.3) Yes

FILL PIPES: Is fill pipe on property accessible to public? (720.6) No Type Screwed
 Distance to fill pipes for other class liquids No-other Kinds of liquids None
 Size 3" Identification (720.3) _____

Distance to openings into building (720.1) 25 Ft.
VENT PIPES: Size (721.2) 1" Height (721.1) 20 Ft. *South Backfill*
 How is top of vent pipe terminated? (721.1) Open Tee
 Distance to openings into buildings (721.1) 20 Ft.

Examiner—Have plans been submitted and approved? _____

Application approved by: } Safety Engineering [Signature] Date 7/18/55
 } Fire Marshal [Signature] Date _____

Permit Number 4653 Issued _____ 19 _____

TO BE ANSWERED BY APPLICANT

Is this installation to be used in connection with present buildings now located on the property? _____

Are any new buildings to be erected, or present buildings altered or enlarged in connection with this installation? _____

Remarks _____

[Handwritten Signature]

Signature of Applicant

FOR ZONING EXAMINER ONLY

District R1 Use _____ Map No. 102

Remarks Property deeded 132 in R1 district Sandy

[Signature] Examiner _____ Date 7-14-5 19____

DEED OR OTHER LEGAL EVIDENCE OF OWNERSHIP SHALL BE PRESENTED BEFORE A PERMIT WILL BE ISSUED

PLOT PLAN

Plot plan must show exact location of tanks with respect to property lines, buildings, or other permanent land marks, distances to other tanks and distances to other installations that may affect the tanks. Show also location of replaced tanks.



Copy for
FIRE MARSHAL

City of Detroit

DEPARTMENT OF BUILDINGS AND SAFETY ENGINEERING
112 E. JEFFERSON, DETROIT 26, MICHIGAN W0odward 5-3000
JOSEPH P. WOLFF, Commissioner

Nº 4653

Permission is hereby granted to ^{JULY 25, 1955} CITY OF DETROIT DEPT. OF PUBLIC WORKS

Address 3434 RUSSELL ST.

For installation of UNDERGROUND GASOLINE TANK

at 18601 BERG ROAD

Owner PARKS & REDREATION

Address 735 RANDOLPH

To be in accordance with the following requirements:

ONE 48"x68" 500 GALLON GASOLINE TANK UG

Ordinances regulating the use, handling, storage and sale of inflammable liquids and the products thereof in the City of Detroit.

Bureau of Licenses and Permits

LEEKs

Clerk.

FEE \$ 7.00

Form C of D-14-11

AMOUNT
PAID

CITY DEPARTMENT
FEE WAIVED

10-27-55

X-268
✓

No Record

City of Detroit

DEPARTMENT OF BUILDINGS AND SAFETY ENGINEERING
112 EAST JEFFERSON AVENUE
DETROIT 26, MICHIGAN

Telephone
WOODWARD 5-3000

August 9, 1955

Detroit Fire Dept.
Fire Prevention Bureau

BUREAU OF SAFETY ENGINEERING APPROVAL

On 8-5-55 the Bureau of Safety Engineering inspected

One - 500 Gallon Gasoline Tank U.G.

at 18601 Berg Rd.-City of Detroit-Dept. of Public Works-3434 Russell
Owner-Parks & Recreation-735 Randolph
and found the same to be satisfactory to this Bureau.

REMARKS:

Installation approved subject to final of vent and pump.

10/27/55 Tank pump, fill - OK
M. B. B. B.

FREE
WAIVED

Yours very truly,

BUREAU OF SAFETY ENGINEERING

Frank J. Drogosch

CHIEF SAFETY ENGINEER

Fire Prevention Division
New Permit Billing Data

Location 18601 Berg Rd (Redford Golf Course)
Firm Name City of Detroit
Proprietor(s) Dept Parks & Recreation
Mailing Address 735 Randolph St
Date Inspected 10-27-55 By M. S. ...

Indicate kind and quantities of inflammable liquids and/or equipment for which no permit could be shown; if garage or greasing station, indicate area; if gasoline station, number of pumps in use, etc.

Storage
2-500 gal U.C. gasoline

Type Permits Required None

Violation Notices No. None are pending
against these premises.
Withhold Following Permits None

Until Notices No. None have been
complied with.

Notices Complied OK FOR PERMIT
(Date) 11-4-55

70628 FOR OFFICE USE ONLY: \$ 3.00

Invoice for Storage - not exp 500 gal
1-500 gal reg. gas tank Permit(s)

Records Checked for Current Permit?

Invoiced NOV - 4 1955 By J. S. ... Card OK

Detroit Fire Department — Fire-Marshal Division

GENERAL

Census Tract: X065 Address: 18601 BERG
 Type of Occupancy: ASSEMBLY
 Type of Permits: ELS
 Type of Construction: ORD. No. of Floors: 4B.
 No. of Exits per Floor: 3-1ST FL.
4 BASE

Location of Heating Units: BASE.
 Type of Units: Boiler Furn. Edison Electric
 Space Heater O/H Unit Heater Other
 How Fired: Gas Oil Steam Electric Other
 If other describe: 1-1500 U.G. FUEL OIL TANK
4" FILL & 2" VENT - OK
 Location of Main Utility Shut-offs: ELECTRIC - BASE - JUVENILE
Room.

FIRE SUPPRESSION EQUIPMENT

No. of A.S. Systems: ___ Type: Dry Pre-Action
 Water Spray Wet Deluge Other
 If others describe: _____

Type of Standpipe System: I II III Other
 If other describe: _____
 Water Flow Indicators: Water motor
 Electric Pressure Vane

Water Supplies:
 Fire Pump Size ___ gpm Auto. Manual
 Gravity Tank Capacity ___ gals.
 Pressure Tank Capacity ___ gals.
 City Pressure
 Fire Department Connection: Yes No
 Are water supplies supervised: Yes No
 Location of Control and Test Valves: _____

Sprinkler system coverage: Total Partial
 If Partial Identify Areas: _____

OCCUPANT

OWNER

26000 GOLF COURSE (LODGE & OFF.
STANLEY JAMES WIER, MGR. BLDG.)
18601 BERG RD
DET. MI 48119
TE# 537-2150
CITY OF DETROIT - 21501
735 W. 12TH - 48226
304-1100

Special Hazards Protection

Type of Agent: CO₂ Dry Chem. Water Spray
 Foam Halon A.S. Other
 If other describe: _____
 Type of System:
 Local Total Flooding Spray Booth Range Hood
 Dip Tank Quench Tank A.G. Tank Other
 If other describe: _____
 Location of Extinguishing Agent: _____

 Location Of Control and Test Valves: _____

FIRE ALARM AND DETECTING DEVICES

Type of Fire Alarm System: Auxiliary Remote
 Local Proprietary Central Station
 Power Source: Electric Battery Generator
 Type of Fire Detection System: Photoelectric
 Flame Heat Pres. Ionization
 Total System Partial System
 Power Source: Electric Battery
 Where Installed: _____

 Location of Control and Tests Panels: _____

Emergency Generators

Type of Fuel: Gasoline Nat. Gas Diesel Electric
 Location of Unit: _____

 Location of Control and Test Panel: _____

 Area Covered: _____

DETROIT FIRE DEPARTMENT
FIRE MARSHAL DIVISION

CENSUS TRACT: X-068 DATE: 3/19/79

TYPE OF INSPECTION: FLS.

BUSINESS NAME: REDFORD GOLF COURSE (MAINTENANCE BLDG.)

NAME STANLEY JANKIEWICZ - MGR.

ADDRESS 18601 BERG RD.

PHONE 537-2150 ZIP CODE 48219

NAME CITY OF DET - PARKS & REC.

ADDRESS 735 RANDOLPH

PHONE 824-1100 ZIP CODE 48226

TYPE OF OCCUPANCY: STOR.

ARE EXITS ADEQUATE FOR SPECIFIC OCCUPANCY?
YES SN REF.

PROPER FIRE SEPARATIONS WHERE REQUIRED?
YES SN REF.

ARE FIRE PROTECTION SYSTEMS, EQUIPMENT AND ALARMS BEING PROPERLY MAINTAINED AND TESTED?
YES SN REF.

ARE THERE ANY FLAMMABLE LIQUIDS, HAZARDOUS CHEMICALS OR GASES BEING USED ON THE PREMISES?
YES NO
IF YES INDICATE CLASS OR TYPE, STORAGE AND USE UNDER REMARKS.
IS USE COVERED BY PERMIT?
YES NO SN REF.

HAVE THERE BEEN ANY ALTERATIONS, RENOVATIONS OR ADDITIONS EFFECTING EXITING, HEATING SYSTEM, OR FIRE PROTECTION SYSTEMS, EQUIPMENT AND ALARMS?
YES NO SN REF.
IF YES, INDICATE CHANGES UNDER REMARKS.

ARE ALL FIRE CODES BEING OBSERVED AND CARRIED OUT?
YES SN

ITEMS DETRIMENTAL TO FIRE FIGHTING: NONE REF.

BUSINESS ADDRESS
18601 BERG RD.

Col D-175-IN (5-77)

REMARKS: 1- 500 GAL. U.G. GAS. TANK & USED FOR FUEL.

INSPECTOR: A. Bloom

TIME: SEE LOGS REPORT.

*Maintenance
BLDG.*

Detroit Fire Department — Fire Marshal Division

GENERAL

Census Tract X266 Address: 18601 BERG
 Type of Occupancy: STOR.
 Type of Permits: FLS.
 Type of Construction: _____ No. of Floors: N.W.B.
 No. of Exits per Floor: DD SERVICE - 1ST FL

Location of Heating Units: 1ST FL. W. WALL
 Type of Units: Boiler Furn. Edison Electric
 Space Heater O/H Unit Heater Other
 How Fired: Gas Oil Steam Electric Other
 If other describe: - 20000 BTU - 1000
OIL TANK - FLD - OIL
 Location of Main Utility Shut-offs: ELECTRIC - N. WALL.

FIRE SUPPRESSION EQUIPMENT

No. of A.S. Systems: _____ Type: Dry Pre-Action
 Water Spray Wet Deluge Other
 If others describe: _____

Type of Standpipe System: I II III Other
 If other describe: _____

Water Flow Indicators: Water motor
 Electric Pressure Vane

Water Supplies:
 Fire Pump Size _____ gpm Auto. Manual
 Gravity Tank Capacity _____ gals.
 Pressure Tank Capacity _____ gals.
 City Pressure
 Fire Department Connection: Yes No
 Are water supplies supervised: Yes No
 Location of Control and Test Valves: _____

Sprinkler system coverage: Total Partial
 If Partial Identify Areas: _____

OCCUPANT
OWNER

REDFORD GOLF COURSE
STADLEY SANKIEWICZ - 116R
18601 BERG. RD.
DET. MICH. 48206
TEL # 537-2150

CITY OF DET. PARKS & REC.
735 RANDOLPH
23000

Special Hazards Protection

Type of Agent: CO₂ Dry Chem. Water Spray
 Foam Halon A.S. Other
 If other describe: _____
 Type of System:
 Local Total Flooding Spray Booth Range Hood
 Dip Tank Quench Tank A.G. Tank Other
 If other describe: _____
 Location of Extinguishing Agent: _____

Location Of Control and Test Valves: _____

FIRE ALARM AND DETECTING DEVICES

Type of Fire Alarm System: Auxiliary Remote
 Local Proprietary Central Station
 Power Source: Electric Battery Generator
 Type of Fire Detection System: Photoelectric
 Flame Heat Pres. Ionization
 Total System Partial System
 Power Source: Electric Battery
 Where Installed: _____

Location of Control and Tests Panels: _____

Emergency Generators

Type of Fuel: Gasoline Nat. Gas Diesel Electric
 Location of Unit: _____

Location of Control and Test Panel: _____

Area Covered: _____

DETROIT FIRE DEPARTMENT
FIRE MARSHAL DIVISION

CENSUS TRACT: X-268 DATE: 3/19/79

TYPE OF INSPECTION: FLS.

BUSINESS NAME: REDFORD GOLF COURSE (PRO HOUSE)

OCCUPANT NAME: STANLEY JANKIEWICZ - MGR.

OCCUPANT ADDRESS: 18601 BELL RD.

OCCUPANT PHONE: 537-8150 ZIP CODE: 48219

OWNER NAME: CITY OF DET. - PARKS & REC.

OWNER ADDRESS: 735 RANDOLPH

OWNER PHONE: 274-1100 ZIP CODE: 48226

TYPE OF OCCUPANCY: ASSEMBLY

ARE EXITS ADEQUATE FOR SPECIFIC OCCUPANCY?
YES SN REF.

PROPER FIRE SEPARATIONS WHERE REQUIRED?
YES SN REF.

ARE FIRE PROTECTION SYSTEMS, EQUIPMENT AND ALARMS BEING PROPERLY MAINTAINED AND TESTED?
YES SN REF.

ARE THERE ANY FLAMMABLE LIQUIDS, HAZARDOUS CHEMICALS OR GASES BEING USED ON THE PREMISES?
YES NO
IF YES INDICATE CLASS OR TYPE, STORAGE AND USE UNDER REMARKS.
IS USE COVERED BY PERMIT?
YES NO SN REF.

HAVE THERE BEEN ANY ALTERATIONS, RENOVATIONS OR ADDITIONS EFFECTING EXITING, HEATING SYSTEM, OR FIRE PROTECTION SYSTEMS, EQUIPMENT AND ALARMS?
YES NO SN REF.
IF YES, INDICATE CHANGES UNDER REMARKS.

ARE ALL FIRE CODES BEING OBSERVED AND CARRIED OUT?
YES SN

ITEMS DETRIMENTAL TO FIRE FIGHTING: NONE REF.

BUSINESS ADDRESS
18601 BELL

C of D - 175-IN (5-77)

REMARKS: NONE

INSPECTOR: A. Blom

STG. 6006
3106. RABET

TIME:

Detroit Fire Department — Fire Marshal Division

GENERAL

Census Tract: X268 Address: 18601 PARK RD.
Type of Occupancy: ASSEMBLY
Type of Permits: FLS
Type of Construction: COMM. No. of Floors: 1st-3.
No. of Exits per Floor: 2-1st Fl.

Location of Heating Units: 1st Fl.
Type of Units: Boiler Furn. Edison Electric
Space Heater O/H Unit Heater Other
How Fired: Gas Oil Steam Electric Other
If other describe: 1-250 GAL. A.G. FUEL OIL TANK.
Location of Main Utility Shut-offs: ELECTRIC - E. WALL BY FRONT DOOR - BEHIND PANELING.

FIRE SUPPRESSION EQUIPMENT

No. of A.S. Systems: Type: Dry Pre-Action
Water Spray Wet Deluge Other
If others describe:

Type of Standpipe System: I II III Other
If other describe:

Water Flow Indicators: Water motor
Electric Pressure Vane

Water Supplies:
Fire Pump Size gpm Auto. Manual
Gravity Tank Capacity gals.
Pressure Tank Capacity gals.
City Pressure
Fire Department Connection: Yes No
Are water supplies supervised: Yes No
Location of Control and Test Valves:

Sprinkler system coverage: Total Partial
If Partial Identify Areas:

OCCUPANT: REDFORD GOLF COURSE
STANLEY JANIKOWICZ - MGR
18601 PARK RD
DET MICH. 48219
TEL # 337-9150
OWNER: CITY OF DET. - PARKS & REC
735 RANDOLPH - 48206
224-1100 (Pro House)

Special Hazards Protection

Type of Agent: CO₂ Dry Chem. Water Spray
Foam Halon A.S. Other
If other describe:
Type of System:
Local Total Flooding Spray Booth Range Hood
Dip Tank Quench Tank A.G. Tank Other
If other describe:
Location of Extinguishing Agent:

Location Of Control and Test Valves:

FIRE ALARM AND DETECTING DEVICES

Type of Fire Alarm System: Auxiliary Remote
Local Proprietary Central Station
Power Source: Electric Battery Generator
Type of Fire Detection System: Photoelectric
Flame Heat Pres. Ionization
Total System Partial System
Power Source: Electric Battery
Where Installed:

Location of Control and Tests Panels:

Emergency Generators

Type of Fuel: Gasoline Nat. Gas Diesel Electric
Location of Unit:

Location of Control and Test Panel:

Area Covered:

**DETROIT FIRE DEPARTMENT
FIRE MARSHAL DIVISION**

CENSUS TRACT: X-268

DATE: 3/19/79

TYPE OF INSPECTION: FLS

BUSINESS NAME: REDFORD GOLF COURSE (PUMP HOUSE)

OCCUPANT

NAME STANLEY JANKEWICZ - MGR.

ADDRESS 18601 BERG RD.

PHONE 537-2150

ZIP CODE 48219

OWNER

NAME CITY OF DET - PARKS & REC.

ADDRESS 735 RANWOLPH.

PHONE 824-1106

ZIP CODE 48226

TYPE OF OCCUPANCY: INDUSTRIAL

ARE EXITS ADEQUATE FOR SPECIFIC OCCUPANCY?
YES SN REF.

PROPER FIRE SEPARATIONS WHERE REQUIRED?
YES SN REF.

ARE FIRE PROTECTION SYSTEMS, EQUIPMENT AND ALARMS BEING PROPERLY MAINTAINED AND TESTED?
YES SN REF.

ARE THERE ANY FLAMMABLE LIQUIDS, HAZARDOUS CHEMICALS OR GASES BEING USED ON THE PREMISES?
YES NO

IF YES INDICATE CLASS OR TYPE, STORAGE AND USE UNDER REMARKS.
IS USE COVERED BY PERMIT?
YES NO SN REF.

HAVE THERE BEEN ANY ALTERATIONS, RENOVATIONS OR ADDITIONS EFFECTING EXITING, HEATING SYSTEM, OR FIRE PROTECTION SYSTEMS, EQUIPMENT AND ALARMS?
YES NO SN REF.
IF YES, INDICATE CHANGES UNDER REMARKS.

ARE ALL FIRE CODES BEING OBSERVED AND CARRIED OUT?
YES SN

ITEMS DETRIMENTAL TO FIRE FIGHTING: NONE REF.

BUSINESS ADDRESS

18601 BERG.

REMARKS: NONE

C of D-175-IN (5-77)

C of D-175-IN (5-77)

INSPECTOR: SEE LOGS.
TIME: BLDG CALL

INSPECTOR: A. Brown

Detroit Fire Department - Fire Marshal Division

GENERAL

Census Tract: X-268 Address: 1860 BERG
Type of Occupancy: INDUSTRIAL
Type of Permits: FLS.
Type of Construction: ORD. No. of Floors: 1 W.B.
No. of Exits per Floor: 1-157 FL.

Location of Heating Units: N. WALL
Type of Units: Boiler [] Furn. [] Edison [] Electric [x]
Space Heater [] O/H Unit Heater [] Other []
How Fired: Gas [] Oil [] Steam [] Electric [x] Other []
If other describe: _____

Location of Main Utility Shut-offs: ELECTRIC - N. WALL

FIRE SUPPRESSION EQUIPMENT

No. of A.S. Systems: _____ Type: Dry [] Pre-Action []
Water Spray [] Wet [] Deluge [] Other []
If others describe: _____

Type of Standpipe System: I [] II [] III [] Other []
If other describe: _____

Water Flow Indicators: Water motor []
Electric [] Pressure [] Vane []

Water Supplies:
Fire Pump [] Size _____ gpm Auto. [] Manual []
Gravity Tank [] Capacity _____ gals.
Pressure Tank [] Capacity _____ gals.
City Pressure []
Fire Department Connection: Yes [] No []
Are water supplies supervised: Yes [] No []
Location of Control and Test Valves: _____

Sprinkler system coverage: Total [] Partial []
If Partial Identify Areas: _____

OCCUPANT
OWNER

REDFORD GOLF COURSE (PUMP HOUSE)
STANLEY JANIEWICZ - M.R.
18601 BERG RD.
DET. 48214 48266
TEL# 532-2150
CITY OF DET. - PUMP HOUSE
735 RANDOLPH
240. 20

Special Hazards Protection

Type of Agent: CO2 [] Dry Chem. [] Water Spray []
Foam [] Halon [] A.S. [] Other []
If other describe: _____

Type of System:
Local [] Total Flooding [] Spray Booth [] Range Hood []
Dip Tank [] Quench Tank [] A.G. Tank [] Other []
If other describe: _____
Location of Extinguishing Agent: _____

Location Of Control and Test Valves: _____

FIRE ALARM AND DETECTING DEVICES

Type of Fire Alarm System: Auxiliary [] Remote []
Local [] Proprietary [] Central Station []
Power Source: Electric [] Battery [] Generator []
Type of Fire Detection System: Photoelectric []
Flame [] Heat [] Pres. [] Ionization []
Total System [] Partial System []
Power Source: Electric [] Battery []
Where Installed: _____

Location of Control and Tests Panels: _____

Emergency Generators

Type of Fuel: Gasoline [] Nat. Gas [] Diesel [] Electric []
Location of Unit: _____

Location of Control and Test Panel: _____

Area Covered: _____

DETROIT FIRE DEPARTMENT
FIRE MARSHAL DIVISION

CENSUS TRACT: X-268 DATE: 3/19/79

TYPE OF INSPECTION: FLS

BUSINESS NAME: REDFORD GOLF COURSE (REFRIGERATION)

NAME: STANLEY JANKIEWICZ - MGR.

ADDRESS: 18601 BERG

PHONE: 537-2150 ZIP CODE: 48219

NAME: CITY OF DET - PARKS & REC.

ADDRESS: 735 RANDOLPH

PHONE: 224-1100 ZIP CODE: 48226

TYPE OF OCCUPANCY: INDUSTRIAL

ARE EXITS ADEQUATE FOR SPECIFIC OCCUPANCY?

YES SN REF.

PROPER FIRE SEPARATIONS WHERE REQUIRED?

YES SN REF.

ARE FIRE PROTECTION SYSTEMS, EQUIPMENT AND ALARMS BEING PROPERLY MAINTAINED AND TESTED?

YES SN REF.

ARE THERE ANY FLAMMABLE LIQUIDS, HAZARDOUS CHEMICALS OR GASES BEING USED ON THE PREMISES?

YES NO

IF YES INDICATE CLASS OR TYPE, STORAGE AND USE UNDER REMARKS.

IS USE COVERED BY PERMIT?

YES NO SN REF.

HAVE THERE BEEN ANY ALTERATIONS, RENOVATIONS OR ADDITIONS EFFECTING EXITING, HEATING SYSTEM, OR FIRE PROTECTION SYSTEMS, EQUIPMENT AND ALARMS?

YES NO SN REF.

IF YES, INDICATE CHANGES UNDER REMARKS.

ARE ALL FIRE CODES BEING OBSERVED AND CARRIED OUT?

YES SN

ITEMS DETRIMENTAL TO FIRE FIGHTING: NONE REF.

OCCUPANT

OWNER

BUSINESS ADDRESS
18601 BERG RD.

C of D-175-IN (5-77)

REMARKS: 400 LBS. OF FREON IN USE FOR FREEZING
ICE BIN

SCALE
TIME

INSPECTOR: D. Blinn

Detroit Fire Department — Fire Marshal Division

REFRIGERATED HOUSE

GENERAL

Census Tract: A-268 Address: 18601 BERG.
Type of Occupancy: INDUSTRIAL
Type of Permits: FCS
Type of Construction: W.S./CON No. of Floors: 1-11-B
No. of Exits per Floor: 1-1ST FLOOR.

OCCUPANT: REDFORD GOLF COURSE
STANLEY JANKIEWICZ - MGR
18601 BERG.
DET. MICH.
TEL # 537-2150

Location of Heating Units: CEILING (ELECTRIC)
Type of Units: Boiler [] Furn. [x] Edison [] Electric [x]
Space Heater [] O/H Unit Heater [] Other []
How Fired: Gas [] Oil [x] Steam [] Electric [x] Other []

OWNER: CITY OF DET., PARKS & REC.
735 RANNEY
320

If other describe: 1-050 GAL. OIL FURN. FOR OIL
TANK - 1-011 NO (OIL FURNACE NOT TO USE)
Location of Main Utility Shut-offs: ELECTRIC - W. WHEEL.

Special Hazards Protection

Type of Agent: CO2 [] Dry Chem. [] Water Spray []
Foam [] Halon [] A.S. [] Other []
If other describe:
Type of System:
Local [] Total Flooding [] Spray Booth [] Range Hood []
Dip Tank [] Quench Tank [] A.G. Tank [] Other []
If other describe:
Location of Extinguishing Agent:
Location Of Control and Test Valves:

FIRE SUPPRESSION EQUIPMENT

No. of A.S. Systems: Type: Dry [] Pre-Action []
Water Spray [] Wet [] Deluge [] Other []
If others describe:

Type of Standpipe System: I [] II [] III [] Other []
If other describe:
Water Flow Indicators: Water motor []
Electric [] Pressure [] Vane []

Water Supplies:
Fire Pump [] Size ___ gpm Auto. [] Manual []
Gravity Tank [] Capacity ___ gals.
Pressure Tank [] Capacity ___ gals.
City Pressure []
Fire Department Connection: Yes [] No []
Are water supplies supervised: Yes [] No []
Location of Control and Test Valves:

FIRE ALARM AND DETECTING DEVICES

Type of Fire Alarm System: Auxiliary [] Remote []
Local [] Proprietary [] Central Station []
Power Source: Electric [] Battery [] Generator []
Type of Fire Detection System: Photoelectric []
Flame [] Heat [] Pres. [] Ionization []
Total System [] Partial System []
Power Source: Electric [] Battery []
Where Installed:
Location of Control and Tests Panels:

Emergency Generators

Type of Fuel: Gasoline [] Nat. Gas [] Diesel [] Electric []
Location of Unit:
Location of Control and Test Panel:
Area Covered:

Sprinkler system coverage: Total [] Partial []
If Partial Identify Areas:

DETROIT FIRE DEPARTMENT - FIRE MARSHAL DIVISION
GARAGE AND SERVICE STATION INSPECTION

Hour _____ M

Date 3-19-1979

District No. X-268

Location 18601 BERG RD.

Proprietor(s) STANLEY JANKIEWICZ - MGR

Home address OP 18601 BERG RD.

Business name REN FORD GOLF COURSE

Owner of property CITY OF DET. - PARKS & REC.

Address of owner 735 RANDOLPH 48226

GARAGE 537-2150

Classification: Repair Storage Service

Building

Area per floor _____ Total area _____

No. stories _____ Construction _____

Firewall doors _____ Stairwell doors _____

Partition walls _____ Ceiling _____

Exits _____ Pits _____

Mixed occupancy _____ Separation _____

Heating

Type of heat _____ Location of heater _____

Separation _____ Ducts _____

Open-Flame Devices

Describe _____

Fuel Gas Torches/Units

Number of torches _____ Permit _____ Condition _____

Gas Storage _____ Amount _____

Permit _____ Condition _____

Electrical

Condition of wiring _____ Fuses _____

Spray painting

Booth or room _____ Electrical _____ Ventilation _____

Sprinkler system _____ Paint storage _____

Condition _____

Housekeeping

General _____ Metal receptacles _____

Extinguishers

Number _____ Size _____ Type _____ Date _____

SERVICE STATION

Pumps (power-operated) (Pressurized System)

No. in use 1 No. out of use NONE

No. of Class I 1 Class II _____ Class III _____

Location OK Segregated N.R.

Hose OK Nozzles OK

Wiring OK Piping OK

Pressurized system NONE Fire impact valves _____

Pumps (hand-operated)

No. in use NONE Type of liquid _____

Tanks

No. in use 1 Capacity each 1-500 GAL. U.G. GWS

No. out of use NONE Capacity each _____

Fill pipes

Sizes: #1 4" #2 _____ #3 _____ #4 _____

Location OK Identification OK

Protection OK Tight connection OK

Vents

Sizes: #1 2" #2 _____ #3 _____ #4 _____

Manifold NONE Size header _____

Type: Automatic NONE Flame arrester NONE

Location OK Discharge OK

Extinguishers

Number 1 Size 10 LBS Type D.C. Date 6/78

Number _____ Size _____ Type _____ Date _____

Type of Station

Retail NONE Pump operators licenses NONE

Private YES Storage permit? FLS.

City of Detroit

DEPARTMENT OF BUILDINGS AND SAFETY ENGINEERING

4th Floor City-County Building Woodward 5-4200 Detroit 26, Michigan

Application for Installation of Flammable Liquids Storage Tanks - Underground

Date: October 26-1951

Occupant City of Detroit Address PARKS REC. DEPT

Contractor STERLING EQUIPMENT CO Address 8314 Joy Road

Owner of Property City of Detroit Address PARKS REC. DEPT

ADDRESS OF INSTALLATION 18601 BERG ROAD (W. ROYAL 604) Street

Between 7 Mile and GRAND RIVER

Lot Number _____ Subdivision Acreage

Nature of Business _____ Location of Pumps HEATING PLANT
(Outside or in fireproof room)

Description of Tanks and Liquids:

NUMBER	DIMENSIONS	CAPACITY (GALLONS)	KIND OF LIQUID	FLASH POINT F.
1. <u>ONE</u>	<u>6' x 12' 0"</u>	<u>2000</u>	<u>Fuel oil</u>	
2. _____				
3. _____				

Are Tanks New or Used? New Do Tanks Bear Underwriter's Label? Yes
(Unlabelled or used tanks shall be inspected, tested and approved by the Bureau of Safety Engineering before Permit to install is issued.)

Is installation new, addition or replacement? Replacement

Number, size and disposition of replaced tanks 1-2000 - To sleep

Distance of fill opening to fill pipes of other class liquids _____

Kinds of liquids _____ Identification of fill pipes Colon Code

Is delivery piping under pressure during operation? No P.S.I.

Is this installation to be used in connection with present buildings now located on the property? yes

Are any new buildings to be erected, or present buildings altered or enlarged in connection with this installation? _____

Remarks STAND FILL - BURNING MAT -

Russell A. J. LeBonde
Signature of Applicant

FOR ZONING EXAMINER ONLY

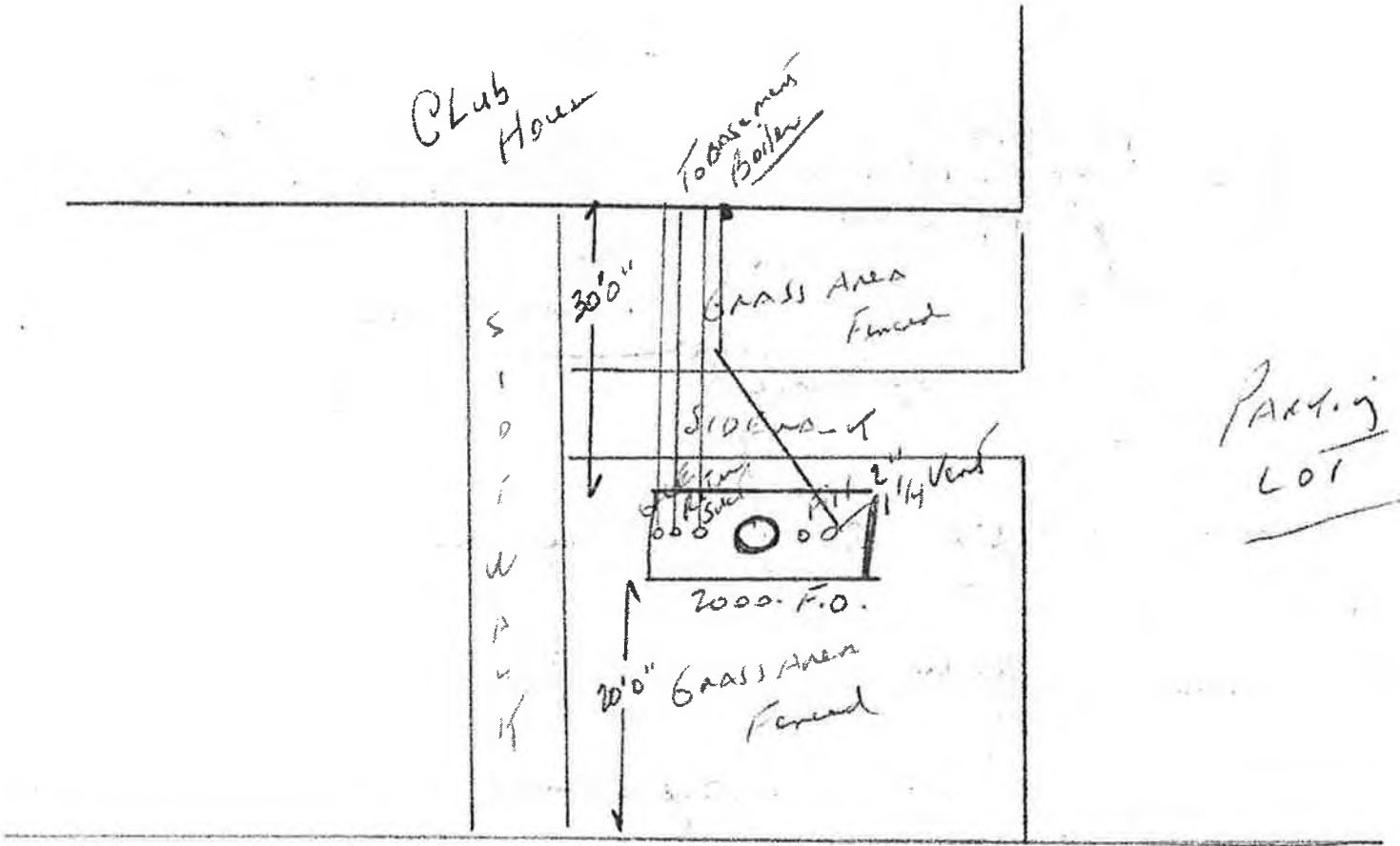
District R1 Use Golf Course Map No. 122B

Remarks _____

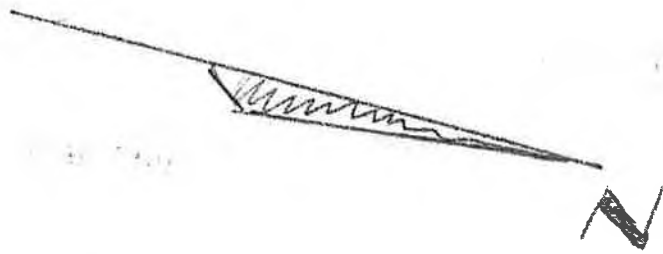
Examiner Stenberg Date 10-27-51 19. _____

PLOT PLAN

Show location of all tanks on property with respect to property lines, buildings and other permanent landmarks. Show also piping diagram, pump island location, distance between tanks and location of replaced tanks.



18601 BERG ROAD



(Do Not Write In This Space)

Test pressure to be applied to delivery piping _____ P.S.I.

Remarks _____

Application approved by:
 } Safety Engineering *[Signature]* Date *10/28/81*
 } Fire Marshal *[Signature]* Date *10/27/81*

Permit Number *# 7637* Issued *05 28 1981* _____ 19 _____

City of Detroit

BUILDINGS AND SAFETY ENGINEERING DEPARTMENT
FOURTH FLOOR CITY-COUNTY BUILDING
DETROIT, MICHIGAN 48226

5414-N

Currently city govt
PKS + Rene.

1-500 gal U.G. GAS TANK

Date: October 29, 1981
Telephone: 224-3200

FLS
(101-500 gal)

Detroit Fire Department
Fire Prevention Bureau
250 W. Larned
Detroit, Michigan 48226

CERTIFICATE OF ACCEPTANCE

On October 27, 1981 the Division of SAFETY ENGINEERING inspected
1 - 2,000 Gal. Fuel Oil Tank - Underground - Permit #7637 - Located at:
18601 Berg Rd. Installed by Sterling Equipment Co. - 8314 Joy Rd. -
Detroit, Michigan. Permission is hereby granted to City of Detroit
Parks and Recreation - 18601 Berg Rd. - Detroit, Michigan

and found the same to be satisfactory to this Division.

REMARKS:

Re 3-15-81 INSTALLATION APPROVED SUBJECT TO FINAL OF VENT AND PUMP + FILL
~~on 10/29/81 used for water - M~~

CREIGHTON C. LEDERER
Director

by Rosalind Mitchell
(authorized signature)

Rosalind Mitchell, Principal Clerk

DETROIT FIRE DEPARTMENT FIRE MARSHAL DIVISION

LICENSE INSPECTION

Assigned to: C. A. Cooper

Date 5-20

1. Address 18601 BerB Rd.
 2. Occupied as Club House
 3. Name of establishment Detroit Parks & Rec.
 4. Operated by Above
 5. Residence address Above
 6. Bldg. owned by City of Detroit
 7. Address of owner 735 Randolph Det 48226
 8. License classification Public Assembly
 9. Capacity Banquet 128 / Club 88 Posted? yes
 10. Floor located on 1st
 11. Number, size and location of exits 3 1-36" front
1-35" Rear - 1-dbl. 28" side

Are they adequate? yes

12. Panic hardware on exit doors: Yes No No

(SN) Explain double cylinder Key deadbolts, padlocks and hasps.

13. Exit signs: Yes No Illuminated? NO

14. Exit doors swing: Out In front Explain existing bldg.

15. Motion pictures shown? NO With permit?

16. Kitchen? yes Housekeeping OK

17. Dressing room? NO Posted "No Smoking"?

18. Type heating plant oil - steam.
 Condition OK

19. Number and type of fire extinguishers 2 - 5lb. CO2
1 - 5lb. D.C.

Date of recharge Jul. (SN) 19 83

20. Decorations OK

21. GENERAL HOUSEKEEPING OK

22. Remarks This is a 11 Bsmt Masonry & Concrete bldg. used as Club House 1st floor

Referred to other Departments NONE

Notice No. 55817-8 issued: 5-20-86

posted

Date investigated 5-20 19 86
 by Charence A. Cooper Fire Inspector

Re-inspection by _____

Notice complied _____ 19 _____

LICENSE APPROVED _____

Fire Inspector

**DETROIT FIRE DEPARTMENT — FIRE MARSHAL DIVISION
GARAGE AND SERVICE STATION INSPECTION**

District No. 52114-N

Location 18601 Berg Rd.

Proprietor(s) STIRLEY, INFANTADO Hqs 935-5531

Home address 40 SAME

Business name Procell Golf Course

Owner of property DEPT PARKS & Rec City of Detroit

Address of owner 735 Randolph DET 48226

Date Sept 7, 1983

Hour 1300 M

Form C of D-171-IN (Rev. 5-67)

GARAGE

Classification: Repair Storage Service

Building

Area per floor _____ Total area _____
 No. stories _____ Construction _____
 Firewall doors _____ Stairwell doors _____
 Partition walls _____ Ceiling _____
 Exits _____ Pits _____
 Mixed occupancy _____ Separation _____

Heating

Type of heat _____ Location of heater _____
 Separation _____ Ducts _____

Open-Flame Devices

Describe _____

Fuel Gas Torches/Units

Number of torches _____ Permit _____ Condition _____
 Gas Storage _____ Amount _____
 Permit _____ Condition _____

Electrical

Condition of wiring _____ Fuses _____

Spray painting

Booth or room _____ Electrical _____ Ventilation _____
 Sprinkler system _____ Paint storage _____
 Condition _____

Housekeeping

General _____ Metal receptacles _____

Extinguishers

Number _____ Size _____ Type _____ Date _____

SERVICE STATION

Pumps (power-operated) (Pressurized System)

No. in use 1 No. out of use 0
 No. of Class I 1 Class II _____ Class III _____
 Location O.K. Segregated O.K.
 Hose O.K. Nozzles O.K.
 Wiring O.K. Piping O.K.
 Pressurized system NONE Fire impact valves —

Pumps (hand-operated)

No. in use NONE Type of liquid _____

Tanks

No. in use 1 Capacity each 500 Gallon Oil Tank
 No. out of use 0 Capacity each _____

Fill pipes

Sizes: #1 2" #2 — #3 — #4 —
 Location O.K. Identification O.K.
 Protection O.K. Tight connection O.K.

Vents

Sizes: #1 1" #2 — #3 — #4 —
 Manifold — Size header _____
 Type: Automatic — Flame arrester —
 Location O.K. Discharge O.K.

Extinguishers

Number 1 Size 10 1/2 Type D.C. Date O.K.
 Number — Size — Type — Date —

Type of Station

Retail No Pump operators licenses —
 Private YES Storage permit? O.K.

Notice No. None Issued to _____

REMARKS

TANK & Pump Located AT MAINT
DEPT Bldg on golf course, USES
SAME ADDRESS AS club house

Condition referred to other depts. None

Time required to make inspection 1300-1345 hrs
[Signature] Fire Inspector

DETROIT FIRE DEPARTMENT — FIRE MARSHAL DIVISION
GARAGE AND SERVICE STATION INSPECTION

J. WB

Hour 1530 M
 Date 4-24-84

District No. 5414-N
 Location 18601 BERG RD
 Proprietor(s) DEPT OF PARKS + RECREATION
 Home address 735 RANDOLPH DET 48206

Business name ROGELL GOLF COURSE
 Owner of property CITY OF DETROIT
 Address of owner _____

GARAGE

Classification: Repair Storage Service

Building

Area per floor _____ Total area _____
 No. stories _____ Construction _____
 Firewall doors _____ Stairwell doors _____
 Partition walls _____ Ceiling _____
 Exits _____ Pits _____
 Mixed occupancy _____ Separation _____

Heating

Type of heat _____ Location of heater _____
 Separation _____ Ducts _____

Open-Flame Devices

Describe _____

Fuel Gas Torches/Units

Number of torches _____ Permit _____ Condition _____
 Gas Storage _____ Amount _____
 Permit _____ Condition _____

Electrical

Condition of wiring _____ Fuses _____

Spray painting

Booth or room _____ Electrical _____ Ventilation _____
 Sprinkler system _____ Paint storage _____
 Condition _____

Housekeeping

General _____ Metal receptacles _____

Extinguishers

Number _____ Size _____ Type _____ Date _____

SERVICE STATION

Pumps (power-operated) (~~Pressurized System~~)

No. in use 1 No. out of use NONE
 No. of Class I 1 Class II _____ Class III _____
 Location OK Segregated OK
 Hose OK Nozzles OK
 Wiring OK Piping OK
 Pressurized system _____ Fire impact valves _____

Pumps (hand-operated)

No. in use NONE Type of liquid _____

Tanks

No. in use 1 Capacity each 500 GAL
 No. out of use NONE Capacity each _____

Fill pipes

Sizes: #1 3" #2 _____ #3 _____ #4 _____
 Location OK Identification OK
 Protection OK Tight connection OK

Vents

Sizes: #1 1 1/2" #2 _____ #3 _____ #4 _____
 Manifold _____ Size header _____
 Type: Automatic _____ Flame arrester _____
 Location OK Discharge OK

Extinguishers

Number 1 Size 4A60BC Type DRY CHEM Date 6-83
 Number _____ Size _____ Type _____ Date _____

Type of Station

Retail _____ Pump operators licenses _____
 Private ✓ Storage permit? YES

3

174

No. B105955

INSP 04/19/82

Detroit Fire Department
FIRE MARSHAL DIVISION
250 W. Larned St.
Detroit, Michigan 48226

J. V. B.

Phone 224-2063 - 64

05/27/83

19

Inspection		Assigned to <u>TUTAK</u>	
Effective 06/1983		Inspected <u>4-24-1984</u>	
Issued to		Notice issued No. <u>—</u>	
Dept of Parks & Rec		Final reinspection <u>—</u> 19	
735 Randolph		Condition <u>OK</u>	
Detroit,, Mi. 48226		Signed <u>Patrick Tutak</u>	
Location 12601 Berg Rd		District 5414 - N	PERMIT NO.
Flam Liq 101-500 gal		Amount	
		\$22.00	
REMIT WITH INVOICE WITHIN 30 DAYS			
This permit expires			
06/1984		Total	\$ 22.00

POSTED

Detroit Fire Department
FIRE MARSHAL DIVISION
250 W. Larned St.
Detroit, Michigan 48226
Phone 224-2063

INSPECTION REPORT

Handwritten initials

Account No. 26-8670-0002-85-001121

Effective Date of Permit 7/01/85

Expiration Date of Permit 6/30/86

Assigned to *H. Curler*

Inspected 5-24 1985

Violation No. *NONE*

Issued to CITY OF DETROIT PARKS & RECREA
CITY OF DETROIT PARKS & REC
00735 RANDOLPH
DETROIT MI 48226

Final reinspection _____ 19____

Sr. Inspector *Malik*

Signed *H. Curler*

Location 18601 BERG RD

Census Tract 5414

130-02-00 STORAGE OF FLAMMABLE LIQUIDS
LIQUIDS 101 - 500 GALS

Amount

Total \$

Comments:

5-24-85 Curler

PERMIT SHOULD BE FOR

STORAGE OF FLAMMABLE LIQUIDS

NOT TO EXCEED 1000 GALLONS

Add new owner

Delete old owner

Other change

No change

Invoice Date 11/15/85

Detroit Fire Department
FIRE MARSHAL DIVISION

DELINQUENT NOTICE

250 W. Larned St.
Detroit, Michigan 48226
Phone 224-2063

Due Date 09/03/85

Account No. 07-26-8670-0002-85-001121

Effective Date of Permit 07/01/85

Expiration Date of Permit 06/30/86

Please record ACCOUNT NUMBER on face
of check.

**MAKE CHECKS PAYABLE TO
TREASURER—CITY OF DETROIT
AND**

Send bottom portion of this notice
with payment to
**DETROIT FIRE DEPARTMENT
FIRE MARSHAL DIVISION
250 W. Larned St.**

Received of **CITY OF DETROIT PARKS & REC
735 RANDOLPH
DETROIT MI 43226**

Location 18601 BERG RD

Census Tract 5414

130-03-00

STORAGE OF FLAMMABLE LIQUIDS
LIQUIDS SD1 - 5,000 GALS

Amount

32.50

THIS IS NOT A PERMIT

Total \$ 32.50

WARNING -- Failure to pay will result in Traffic and Ordinance Court Citation.

PLEASE RETURN THIS PORTION WITH REMITTANCE FOR PROPER RECORDING

Permit to be Issued to **CITY OF DETROIT PARKS & RECREA
TION DEPARTMENT**
Location 18601 BERG RD

Amount billed 32.50
ACCOUNT NO. 07-26-8670-0002-85-001121

Has the ownership or nature of your business changed since your last application? If so,
please indicate changes.

POSTED

Detroit Fire Department
 FIRE MARSHAL DIVISION
 250 W. Larned St.
 Detroit, Michigan 48226
 Phone 224-2063

INSPECTION REPORT

423

Account No. **26-8670-0002-85-001121**

Assigned to C.D. Cooper

Effective Date of Permit **7/01/86**

Inspected 5-20 19 86

Expiration Date of Permit **6/30/87**

Violation No. 55817-8

Issued to **CITY OF DETROIT-PARKS & RECREA
 CITY OF DETROIT
 00735 RANDOLPH
 DETROIT MI 48226**

Final reinspection _____ 19 _____

Sr. Inspector [Signature]

Signed [Signature]

Location **18601 BERG RD**

Census Tract **5414**

**130-03-00 STORAGE OF FLAMMABLE LIQUIDS
 LIQUIDS 501 - 5,000 GALS**

Amount

* ~~add. Public Assembly~~
 3,000 Sq. Ft.

* ~~add Storage & Service Garage~~
 1,000 Sq. Ft.

PH # 935-1331

Total	\$
-------	----

Comments:

SN # 55817+8 = 6, 25, 32

Add new owner

Delete old owner

Other change

No change

1st. Oil - Not used

1 + BOMT

3 - Exit. 1 - 36" double door Row red. Act 1/2

3 - " 1 - 35" rear

1 - 40x28 - side - padlock & hasp

Dep. Bang. Rm 128 post

Club House 88

2 - Sth. door - 1 - Sth. P.C. Jul 83

Self closed to boiler (50)

**DETROIT FIRE DEPARTMENT — FIRE MARSHAL DIVISION
GARAGE AND SERVICE STATION INSPECTION**

Hour 1000 M

Date 5-20 1986

District No. 5415

Location 15601 Berg Rd.

Business name City of Detroit Parks & Rec.

Proprietor(s) City of Detroit Parks & Rec.

Owner of property SAME

Home address 00735 Randolph Detroit 48206

Address of owner SAME

GARAGE

Classification: Repair Storage Service

Building

Area per floor 1,000 sq. Ft. Total area 1,000 sq. Ft.

No. stories 1 + A/B Construction Steel

Firewall doors NONE Stairwell doors NONE

Partition walls OK Ceiling OK

Exits OK Pits NO

Mixed occupancy NO Separation OK

Heating

Type of heat Fuel oil Location of heater Flour - boiler Room

Separation OK Ducts OK

Open-Flame Devices

Describe 0

Fuel Gas Torches/Units

Number of torches 0 Permit _____ Condition _____

Gas Storage _____ Amount _____

Permit _____ Condition _____

Electrical

Condition of wiring OK Fuses OK

Spray painting

Booth or room NONE Electrical _____ Ventilation _____

Sprinkler system _____ Paint storage _____

Condition _____

Housekeeping

General OK Metal receptacles YES

Extinguishers

Number 111 Size 10lb Type D.C. Date _____

SERVICE STATION

Pumps (power-operated) (Pressurized System)

No. in use 1 No. out of use NONE

No. of Class I 1 Class II _____ Class III _____

Location outside bldg. Segregated YES

Hose OK Nozzles OK

Wiring OK Piping OK

Pressurized system N/A Fire impact valves N/A

Pumps (hand-operated)

No. in use 0 Type of liquid _____

Tanks

No. in use 1 Capacity each 550 gal. D.G. gasoline

No. out of use — Capacity each _____

Fill pipes

Sizes: #1 3" #2 _____ #3 _____ #4 _____

Location 5' from pump Identification YES

Protection YES Tight connection YES

Vents

Sizes: #1 1 1/2" #2 _____ #3 _____ #4 _____

Manifold _____ Size header _____

Type: Automatic ✓ Flame arrester NO

Location adj to bldg. Discharge OK

Extinguishers

Number 1 Size 10lb Type D.C. Date _____

Number _____ Size _____ Type _____ Date _____

Type of Station

Retail _____ Pump operators licenses _____

Private ✓ Storage permit? YES

Notice No. 558178 Issued to _____

→ Shirley Infante
Mgr.

REMARKS

Contacted Jenn Phillips Asst. Mgr.

Condition referred to other depts. None

Time required to make inspection 120 min.

Clarence A. Cooper Fire Inspector

DETROIT FIRE DEPARTMENT
Fire Marshal Division

250 W. Larned Street
Fire Headquarters Phone: 224-2033

5414
Public
12550 N. 11th
316 N
140036

Notice of Violations Date 5-26, 19 86

To Shirley Infante Manager
735 Randolph apt. 4026 Bus. Phone: 735-5331

The following orders are issued for the correction of hazardous conditions found upon inspection of the premises located at

Address 18601 Berg Rd.

Firm Name City of Detroit Parks & Rec.

These orders must be complied with **AT ONCE**:

- ① Remove the unapproved locking devices (double cylinder key operated dead bolt lock) from the front exit door. Also remove the padlock and keep from the side exit door on the 1st floor. Only approved type spring activated door locks are permitted on panic type hardware. All exits shall be maintained readily accessible at all times as per A.F.P.A. 101.

18601 Berg Rd.

WARNING: Fire or injury resulting from delay or failure to comply with this notice will be attributed to negligence on the part of the responsible party or parties.

By Order of DONALD L. ROBINSON Fire Marshal.

Insp. Carroll Cooper

55817

DETROIT FIRE DEPARTMENT
Fire Marshal Division
250 W. Larned Street
Fire Headquarters Phone: 224-2033

59114
P. K. C.
7550 411
Club
1-6030

Notice of Violations Date 5-26, 1986

To Shirley Infantado Manager
735 Randolph Del. 48226 Bus. Phone: 935-5331

The following orders are issued for the correction of hazardous conditions found upon inspection of the premises located at

Address 18601 Berg Rd.

Firm Name City of Detroit Park & Recs

These orders must be complied with AT ONCE:

(1) Recharge, rework if necessary.
Service and tag with date of
service on portable fire extinguishers
as per A.F.P.A. 10.

(2) Repair or replace the defective
operating self-closing device installed
in the fire door to the basement
locker room, as per A.F.P.A. 80

18601 Berg Rd.

WARNING: Fire or injury resulting from delay or failure to comply with this notice will be attributed to negligence on the part of the responsible party or parties.

By Order of DONALD L. ROBINSON Fire Marshal.

Insp. Clarence J. Cooper

55818

DETROIT FIRE DEPARTMENT
Fire Marshal Division

Fire Headquarters 250 W. Larned Street
Phone: 224-2033

5414
Public
assembly
Club
House

Notice of Violations Date 5-26, 19 86

To Shirley Infante Manager
735 Randolph pct. 4806 Bus. Phone: 935-5331

The following orders are issued for the correction of hazardous conditions found upon inspection of the premises located at

Address 18601 Berg Rd.

Firm Name City of Detroit Parks & Rec.

These orders must be complied with AT ONCE:

- Remove the unapproved locking devices (double cylinder key operated dead bolt lock) from the front exit door. Also remove the padlock and hasp from the side exit door on the 1st floor. Only approved type spring activated snap locks are permitted on panic type hardware. All exits shall be maintained readily accessible at all times. As per A.F.P.A. 101.

18601 Berg Rd.

COMPLIED

WARNING: Fine or injury resulting from delay or failure to comply with this notice will be attributed to negligence on the part of the responsible party or parties.

By Order of DONALD L. ROBINSON Fire Marshal.

Insp. Clarence A. Cooper

POSTED

55817

REINSPECTION RECORD

DATE	INSPECTOR	PERSON CONTACTED AND TITLE	EXT.
6-9-86	VANN	SHIRLEY INFANTE, MGR	
Condition:	N/C LEFT LETTER OF INTENT TO TICKET		
6-29-87	HURST	SHIRLEY INFANTE (MGR)	
Condition:	NOT COMPLIED		
7/21/88	Dutelle	Renee Gackert, Employer	
Condition:	Glen N/C		
12-7-88	PRITCHETT	EILEEN EGGLESTON	
ISSUED TICKET # V 277-839			
1-6-89	PRITCHETT	CARL TOWNE	
Condition:	COMPLIED OK TO FILE		
Condition:	O.K. TO FILE		
Condition:			

DETROIT FIRE DEPARTMENT
 Fire Marshal Division
 250 W. Larned Street
 Fire Headquarters Phone: 224-2033

5414
 Public
 Assembly
 Club
 House

Notice of Violations Date 5-20, 1986

To Shirley Infanta MANAGER
735 Randolph, Det. 48226 Bus. Phone: 935-5331

The following orders are issued for the correction of hazardous conditions found upon inspection of the premises located at

Address 18601 Berg Rd.

Firm Name City of Detroit Park & Recs.

These orders must be complied with AT ONCE:

- (1) Recharge, reweigh if necessary, service and tag with date of service all portable fire extinguishers as per A.F.P.A. 10.
- (2) Repair or replace the defective operating, self closing device installed on the fire door to the basement boiler room, as per A.F.P.A. 80

18601 Berg Rd.

81859

POSTED

WARNING: Fire or injury resulting from delay or failure to comply with this notice will be attributed to negligence on the part of the responsible party or parties.

By Order of DONALD L. ROBINSON Fire Marshal.

Insp. Clarence J. Cooper

REINSPECTION RECORD

DATE	INSPECTOR	PERSON CONTACTED AND TITLE	EXT.
6-9-86	VANN	Shirley Infanta	Ext. 06R
Condition:		Not Complied - Left letter of intent to ticket	
B-I. SCHEDULED 10-89			
11-20-86	PRITCHETT	JEAN PHILLIPS	EXT.
Condition:		NOT COMPLIED	
11-21-86 SENT COPY TO TED JORDAN Dep. Dir. Park & Rec. R.I. 1-7			
6-29-87	HURST	SHIRLEY INFANTAO (MGR)	EXT.
Condition:		Not Complied R.I. 9-18	
7-21-88	Nitchell	Renee Packret (Employee)	EXT.
Condition:		Item # 1 OK Item # 2 Complied	
Condition:		OK	

DETROIT FIRE DEPARTMENT FIRE MARSHAL DIVISION

AS

LICENSE INSPECTION

Assigned to: S. HURST

Date 6-29 19 87

1. Address 18601 BERG RD

2. Occupied as GOLF CLUB HOUSE

3. Name of establishment CITY OF DETROIT - PARKS & REC.

4. Operated by SHIRLEY INSTANTANO (MGR)

5. Residence address 18601 BERG RD

6. Bldg. owned by CITY OF DETROIT PARK & REC.

7. Address of owner 735 RANDOLPH

8. License classification _____

9. Capacity 128 Posted? YES

10. Floor located on 1ST FL

11. Number, size and location of exits S. EXIT 36" E. EXIT 1 SET OF DOUBLE DOORS 32' EA N. EXIT 36"

Are they adequate? REMARKS

12. Panic hardware on exit doors: Yes No
Explain _____

13. Exit signs: Yes No Illuminated? NO

14. Exit doors swing: Out In Explain _____

15. Motion pictures shown? N/A With permit?

16. Kitchen? YES Housekeeping OK

17. Dressing room? N/A Posted "No Smoking"?

18. Type heating plant GAS FIRED STEAM BOILER
Condition OK

19. Number and type of fire extinguishers REMARKS

Date of recharge - 19 -

20. Decorations NONE

21. GENERAL HOUSEKEEPING OK

22. Remarks 1 & B MASON & MILL - PREVIOUS VIOLATION 55817 & 18 WERE NOT COMPLIED CONCERNING THE EXIT & EXTINGUISHERS

Referred to other Departments NONE

Notice No. NONE issued: -

Date investigated by S. Hurst 6-29 19 87
Fire Inspector

Re-inspection by _____

Notice complied _____ 19 _____

LICENSE APPROVED _____

Fire Inspector

Detroit Fire Department
FIRE MARSHAL DIVISION
250 W. Larned St.
Detroit, Michigan 48226
Phone 224-2063

JTB

INSPECTION REPORT

426

Account No. 26-8670-0002-85-001121

Assigned to S. Hurst

Effective Date of Permit 7/01/87

Inspected 6-29 1987

Expiration Date of Permit 6/30/88

Violation No. SN# 62053

Issued to CITY OF DETROIT-PARKS & RECREA
CITY OF DETROIT
00735 RANDOLPH
DETROIT MI 48226

Final reinspection _____ 19____

Sr. Inspector Baker

Signed S. Hurst

Location 18601 BERG RD

Census Tract 5414

VIOLATION NUMBER: 5581708

Amount

030-03-00 PUBLIC ASSEMBLY
COMM/REC BLDG UNDER 10,001 SQ FT

060-01-00 SERVICE AND/OR STORAGE GARAGE
1000 SQ. FT-SERVICE & STORAGE GAR

130-03-00 STORAGE OF FLAMMABLE LIQUIDS
LIQUIDS 501 - 5,000 GALS

Total \$

Comments:

935-5331

SN # 20124

Add new owner

Delete old owner

Other change

No change

128 MAINTENANCE YARD
Leaking Pump
TORN HOSES

4A 603E
FURNACE
FUEL OIL
2-200
Gal

SOON
ACID
VENT PIPE
SIDE OF BUILDING

Gas FURNACE
Boiler

250 UB

Public
SERVICE
19th Fl
Ms. CHRISTENSEN

District No. 5414 Type Inspection PA **DETROIT FIRE DEPARTMENT** FD
 Location 18601 BERG RD Fire Marshal Division _____ Hour 1415 M. Date 6-29 1987
 Stories 1 & B Construction MASON & MILL Occupied by CITY OF DETROIT PARKS & REC
 Bldg. owned by CITY OF DETROIT - PARKS & REC. Occupied as GOLF CLUB
 Address 18601 BERG RD 48226 Executive official SHIRLEY INFANTADO (MGR.)
 Residence address SAME

935-5331

BUILDING

Has bldg. fire walls? NONE Are fire wall openings protected? —
 Fire wall doors are: automatic — self-closing — manual —
 Are all fire wall fire doors operative? NONE Are all other fire doors operative? YES
 Are elevator shafts enclosed or open? N/A Do all doors and gates operate properly? —
 Are all other floor openings, including stairways, protected? YES
 Are all stairwell fire doors self-closing? YES Were they closed at time of inspection? YES
 Number of exits each floor? 3 EXITS FROM 1ST FL AND

BASEMENT

Are exits marked? YES Are exits properly maintained? REMARKS
 Are exits adequate? YES If not, explain _____

Revolving Doors? N/A Type — Operative? —

Do floors appear overloaded? NONE What floors? —

What is means of access to roof? NONE

Was roof opening unlocked? —

How is building heated? Gas Fired STORM Boiler

Condition of heating apparatus, including smoke pipes, heat ducts, etc. (if defective, describe) OK

Condition of electrical wiring? (If defective, explain) OK

General condition of building (structurally)? OK

OCCUPANCY

Housekeeping (If poor, give details) OK

Is elevator pit clean? —

Kinds and amounts of inflammable liquids handled? NONE

How and where stored? —

Permit? —

Any special hazards (material detrimental to firemen)? Give details NONE

Is smoking permitted? YES When and where? THRU OUT

Location of welding and cutting operations NONE

Any acetylene apparatus? NONE Permit? —

Ventilating system? YES Air conditioning? WINDOWS

Condition of plenum chambers? NONE

FIRE PROTECTION

Is there a sprinkler system? NONE Wet — Dry —

Sources of supply and capacity of each? —

Were control valves open? — Were control valves sealed? —

Are control valves readily accessible? —

Is sprinkler distribution obstructed at any point? —

Condition of outside Fire Dept. connection? —

Has bldg. a standpipe system? — Wet — Dry —

Source of supply and capacity? —

Size and type hose on standpipe? — Condition of hose? —

Can Fire Dept. use standpipe outlets? —

Number, size, type and location of fire extinguishers? REMARKS

2 1/2 Gal Soda Acid

Last service date? — Condition of extinguishers? —

Amount, size and type of hose other than on standpipe? N/A

Condition of hose? N/A

Outline procedure for notifying Detroit Fire Dept. in case of fire: TELEPHONE

Conditions referred to other Departments? NONE

Regarding violations found, interviewed SHIRLEY INFANTINO Title MGR

Notice No. NONE issued as follows: —

REMARKS -
PREVIOUS VIOLATIONS # 55817 + 55818
NOT COMPLIED

Time required to make inspection: S. J. [Signature]

Fire Inspector

**DETROIT FIRE DEPARTMENT - FIRE MARSHAL DIVISION
GARAGE AND SERVICE STATION INSPECTION**

Hour _____ M
Date 6-29 1987

District No. 5414
Location 18601 BERG RD.
Proprietor(s) CITY OF DETROIT - PARKS & REC.
Home address 735 RANDOLPH 48226

Business name CITY OF DETROIT PARKS & REC.
Owner of property SAME
Address of owner SAME

935-5337

GARAGE

Classification: Repair Storage Service

Building
Area per floor — Total area 1000 sq ft
No. stories 14 NB Construction MASON & MILL
Firewall doors OK Stairwell doors N/A
Partition walls NONE Ceiling OK
Exits 1 EXIT Pits NONE
Mixed occupancy NONE Separation NONE

Heating GAS FIRE FUEL/OIL HEATER OK
Type of heat _____ Location of heater SEPARATE ROOM
Separation OK Ducts OK

Open-Flame Devices
Describe NONE

Fuel Gas Torches/Units
Number of torches N/A Permit — Condition —
Gas Storage — Amount —
Permit — Condition —

Electrical
Condition of wiring OK Fuses —

Spray painting
Booth or room N/A Electrical — Ventilation —
Sprinkler system — Paint storage —
Condition —

Housekeeping
General OK Metal receptacles OK

Extinguishers
Number (SN) Size — Type — Date —

SERVICE STATION

Pumps (power-operated) (Pressurized system)
No. in use 1 No. out of use 0
No. of Class I 1 Class II — Class III —
Location OK Segregated OK
Hose (SN) Nozzles OK
Wiring OK Piping (SN)
Pressurized system — Fire impact valves —

Pumps (hand-operated)
No. in use 0 Type of liquid —

Tanks 250 GAL UG CLASS I GASOLINE
No. in use 1 Capacity each _____
No. out of use _____ Capacity each _____

Fill pipes
Sizes: #1 2" #2 — #3 — #4 —
Location OK Identification OK
Protection OK Tight connection OK

Vents
Sizes: #1 1" #2 — #3 — #4 —
Manifold — Size header —
Type: Automatic — Flame arrester —
Location OK Discharge OK

Extinguishers
Number _____ Size _____ Type _____ Date _____
Number _____ Size _____ Type _____ Date _____

Type of Station
Retail N/A Pump operators licenses —
Private 465 Storage permit? OK

Form C of D-171-IN (Rev. 5-67)

Notice No. 62053 Issued to MR CHRISTENSEN

- DEFECTIVE HOSES (TORN & FRAYED)
- RECHARGE EXTINGUISHERS
- LEAKING FUEL LINE IN PUMP

REMARKS

NONE

Condition referred to other depts. NONE

Time required to make inspection 85

[Signature]
Fire Inspector

DETROIT FIRE DEPARTMENT

Fire Marshal Division

250 W. Larned Street

Fire Headquarters

Phone: 224-2033

5414
STORAGE GARAGE
GARAGE

RB

Notice of Violations Date 6-29, 1987

To SHIRLEY INSTANTADO
18601 BERG RD Bus. Phone: 935-5331

The following orders are issued for the correction of hazardous conditions found upon inspection of the premises located at

Address 18601 BERG RD

Firm Name CITY OF DETROIT PARKS & REC

These orders must be complied with AT ONCE:

- ① DISCONTINUING USE OF THE DEFECTIVE PUMP LEAKING SUPPLY LINE, UNTIL REPAIRS HAVE BEEN DONE AND INSPECTED BY THIS DIVISION. AS PER NFPA #30 CH. 7
- ② REMOVE AND REPLACE THE DEFECTIVE HOSE ON THE GAS PUMP (TORN & FRAYED) AS PER NFPA #30 CH. 7
- ③ RECHARGE, REWEIGHT IN NECESSARY, SERVICE AND TAG WITH DATE OF SERVICE THE PROX-ONE DATE 2-2A 40 BC FIRE ESTABLISHMENT. AS PER NFPA #10 (MAINTAINANCE GARAGE) LEFT WITH SHIRLEY INSTANTADO

18601 BERG RD

WARNING: Fire or injury resulting from delay or failure to comply with this notice will be attributed to negligence on the part of the responsible party or parties.

By Order of DONALD L. ROBINSON Fire Marshal.

Insp. [Signature]

62053

128 persons 33 person

ll

Detroit Fire Department
FIRE MARSHAL DIVISION
250 W. Larned St.
Detroit, Michigan 48226
Phone 224-2063

INSPECTION REPORT

463

Account No. 26-8670-08601-85-001121	Assigned to <u>Mitchell</u>
Effective Date of Permit 7/01/88	Inspected <u>7-19</u> 19 <u>88</u>
Expiration Date of Permit 6/30/89	Violation No. _____
Issued to CITY OF DETROIT-PARKS & RECREA CITY OF DETROIT 00735 RANDOLPH DETROIT MI 48226	Final reinspection _____ 19____
	Sr. Inspector <u>Agd</u>
	Signed <u>Gary Mitchell</u>

Location 18601 BERG RD	Census Tract 5414
-------------------------------	--------------------------

	Amount
030-03-00 PUBLIC ASSEMBLY COMM/REC BLDG UNDER 10,001 SQ FT	
060-01-00 SERVICE AND/OR STORAGE GARAGE 1000 SQ. FT-SERVICE & STORAGE GAR	
130-03-00 STORAGE OF FLAMMABLE LIQUIDS LIQUIDS 501 - 5,000 GALS	
Total	\$

Comments:

944 935-5331

Add new owner
 Delete old owner
 Other change
 No change

DETROIT FIRE DEPARTMENT

Fire Marshal Division

District No. 5414 Type Inspection FLI SURV Hour 1325 Date 5-24-93
 Location 18601 BERG RD Occupied by ROBERT GOLF COURSE
 Stories 17NB Construction ORDINARY Occupied as CLUB
 Bldg. owned by CITY OF DETROIT Executive official BOB HILLARD, DIRECTOR
 Address 735 RANDOLPH Residence address 735 RANDOLPH

BUILDING

Has bldg. fire walls? NO Are fire wall openings protected? NO
 Fire wall doors are: automatic _____ self-closing _____ manual _____
 Are all fire wall fire doors operative? _____ Are all other fire doors operative? _____
 Are elevator shafts enclosed or open? _____ Do all doors and gates operate properly? _____
 Are all other floor openings, including stairways, protected? _____
 Are all stairwell fire doors self-closing? _____ Were they closed at time of inspection? _____
 Number of exits each floor? _____

Are exits marked? NO Are exits properly maintained? YES
 Are exits adequate? YES If not, explain _____

Revolving Doors? NO Type _____ Operative? _____
 Do floors appear overloaded? NO What floors? _____
 What is means of access to roof? NO
 Was roof opening unlocked? _____
 How is building heated? GAS FURNACE
 Condition of heating apparatus, including smoke pipes, heat ducts, etc. (if defective, describe) OK

Condition of electrical wiring? (if defective, explain) OK
 General condition of building (structurally)? OK

OCCUPANCY

Housekeeping (if poor, give details) OK
 Is elevator pit clean? NO
 Kinds and amounts of inflammable liquids handled? 550 GALLON CASK

How and where stored? IN 550 U.G. GAS TANK - VENT + FILL OK
 Permit? YES
 Any special hazards (material detrimental to firemen)? Give details NO

Is smoking permitted? RESTRICTED When and where? RESTRICTED
 Location of welding and cutting operations: NO

Any acetylene apparatus? NO Permit? _____
 Ventilating system? NO Air conditioning? NO
 Condition of plenum chambers? NO

Form C of D-78-FO (Rev. 7-63)

FIRE PROTECTION

Is there a sprinkler system? None Wet _____ Dry _____

Sources of supply and capacity of each? _____

Were control valves open? _____ Were control valves sealed? _____

Are control valves readily accessible? _____

Is sprinkler distribution obstructed at any point? _____

Condition of outside Fire Dept. connection? _____

Has bldg. a standpipe system? _____ Wet _____ Dry _____

Source of supply and capacity? _____

Size and type hose on standpipe? _____ Condition of hose? _____

Can Fire Dept. use standpipe outlets? _____

Number, size, type and location of fire extinguishers? _____

3 - 15# D/C

Last service date? GAUGED Condition of extinguishers? OK

Amount, size and type of hose other than on standpipe? 10#

Condition of hose? _____

Outline procedure for notifying Detroit Fire Dept. in case of fire: PHONE

Conditions referred to other Departments? NONE

Regarding violations found, interviewed JIM VALISENTO Title PROPERTY MANAGER

Notice No. NONE issued as follows: _____

Time required to make inspection: _____

Youn
H. Smith

**DETROIT FIRE DEPARTMENT
Fire Marshal Division**

District No. 5414 Type Inspection Sub Asses Hour 1205 M. Date 7-19 1988
 Location 18601 Berg Rd. Occupied by City of Detroit - Parks & Rec. William Loggell House
 Stories 1 & B Construction Masonry & Frame Occupied as Club House
 Bldg. owned by City of Det. % Daniel Krickbaum (Dir) PH# Executive official Shirley Infanteado PH# 935-5331
 Address 735 Randolph Det-MI. 48226 Residence address 18601 Berg Rd. Det. 48219

BUILDING

Has bldg. fire walls? None Are fire wall openings protected? —
 Fire wall doors are: automatic — self-closing — manual —
 Are all fire wall fire doors operative? N/A Are all other fire doors operative? Yes
 Are elevator shafts enclosed or open? None Do all doors and gates operate properly? N/A
 Are all other floor openings, including stairways, protected? Open Stairwell
 Are all stairwell fire doors self-closing? — Were they closed at time of inspection? —
 Number of exits each floor? 3 Exits from 1st floor
2 " " " Basement
 Are exits marked? Yes Are exits properly maintained? Yes
 Are exits adequate? Yes If not, explain —
 Revolving Doors? None Type — Operative? —
 Do floors appear overloaded? No What floors? —
 What is means of access to roof? None
 Was roof opening unlocked? N/A
 How is building heated? Gas Fired Boiler - Steam
 Condition of heating apparatus, including smoke pipes, heat ducts, etc. (if defective, describe) OK
 Condition of electrical wiring? (if defective, explain) OK
 General condition of building (structurally)? OK

OCCUPANCY

Housekeeping (If poor, give details) OK
 Is elevator pit clean? N/A
 Kinds and amounts of inflammable liquids handled? —
 How and where stored? —
 Permit? —
 Any special hazards (material detrimental to firemen)? Give details —
 Is smoking permitted? Yes When and where? Thru-out Bldg
 Location of welding and cutting operations —
 Any acetylene apparatus? — Permit? —
 Ventilating system? — Air conditioning? Yes
 Condition of plenum chambers? —

Form C of D-78-FO (Rev. 7-63)

FIRE PROTECTION

Is there a sprinkler system? None Wet _____ Dry _____

Sources of supply and capacity of each? _____

Were control valves open? _____ Were control valves sealed? _____

Are control valves readily accessible? _____

Is sprinkler distribution obstructed at any point? _____

Condition of outside Fire Dept. connection? _____

Has bldg. a standpipe system? _____ Wet _____ Dry _____

Source of supply and capacity? _____

Size and type hose on standpipe? _____ Condition of hose? _____

Can Fire Dept. use standpipe outlets? _____

Number, size, type and location of fire extinguishers? 1-5 B.C. & 1-2A 10B.C.

D.C. Ex't's located in kitchen

Last service date? 7/88 Condition of extinguishers? OK

Amount, size and type of hose other than on standpipe? None

Condition of hose? _____

Outline procedure for notifying Detroit Fire Dept. in case of fire: 911

Conditions referred to other Departments? None

Regarding violations found, interviewed Shirley Infante (u/g) Title _____

Notice No. None issued as follows: _____

Time required to make inspection: 50 min

Carly Mitchell

Fire Inspector

DETROIT FIRE DEPARTMENT FIRE MARSHAL DIVISION

LICENSE INSPECTION

Assigned to:

Outreel

Date

7-19 1958

1. Address 18601 Bery Rd
 2. Occupied as Golf Course / Club House
 3. Name of establishment William Regal Golf Course
 4. Operated by Shirley Infante 935-5331
 5. Residence address 90 18601 Bery Rd
 6. Bldg. owned by City of Det 90 Daniel Knickbaum
 7. Address of owner 735 Randolph Det 48224
 8. License classification Golf Course
 9. Capacity 128 ± 58 Posted? Yes
 10. Floor located on 1st FLOOR
 11. Number, size and location of exits 2- 36" Exits
and 1- 44" Exit

Are they adequate? Yes
 12. Panic hardware on exit doors: Yes No

Explain 1 - Panic Hardware (assembly area)
2 - Knobs activated at Snack Counter

13. Exit signs: Yes No Illuminated? No

14. Exit doors swing: Out In Explain Previously approved

15. Motion pictures shown? None With permit? Not

16. Kitchen? Yes Housekeeping OK

17. Dressing room? None Posted "No Smoking"? Not

18. Type heating plant Gas Fired Boiler - Steam
 Condition OK

19. Number and type of fire extinguishers 1- 5 B.C. Co2
1- 2A U.B.C. D.C.

Date of recharge 7/19 58

20. Decorations OK

21. GENERAL HOUSEKEEPING OK

22. Remarks NONE

Referred to other Departments NONE

Notice No. NONE issued: Shirley Infante (Reg.)

Date investigated 7-19 1958
 by Coony Outreel Fire Inspector

Re-inspection by _____

Notice complied _____ 19 _____

LICENSE APPROVED _____
 Fire Inspector

**DETROIT FIRE DEPARTMENT — FIRE MARSHAL DIVISION
GARAGE AND SERVICE STATION INSPECTION**

Date 18 Hour 1205 M
7-19 1988

District No. 5414
Location 18601 Berg
Proprietor(s) 90 Shirley Dufantado 935-5331
Home address 18601 Berg Rd. Det - 48219

Business name City of Det - Park & Rec. William Rowell Golf Course
Owner of property City of Det c/o Daniel Krichbaum
Address of owner 735 Randolph Det - 48226

GARAGE

Classification: Repair Storage Service

Building

Area per floor _____ Total area 1000 sq ft
No. stories 1 & 1/2 Construction Steel
Firewall doors None Stairwell doors None
Partition walls Masonry Ceiling Steel
Exits 1 Pits None
Mixed occupancy NO Separation _____

Heating

Type of heat Gas Fired Location of heater 8ft Above Ground
FA Furnace
Separation OK Ducts OK

Open-Flame Devices

Describe None

Fuel Gas Torches Units

Number of torches None Permit _____ Condition _____
Gas Storage _____ Amount _____
Permit _____ Condition _____

Electrical

Condition of wiring OK Fuses Circuit Breakers

Spray painting

Booth or room None Electrical _____ Ventilation _____
Sprinkler system _____ Paint storage _____
Condition _____

Housekeeping

General OK Metal receptacles yes

Extinguishers

Number 1 Size 2# 40BCL Type D.C. Date 7/88

SERVICE STATION

Pumps (power-operated) (Pressurized System)

No. in use 1 No. out of use 0
No. of Class I 1 Class II _____ Class III _____
Location OK Segregated _____
Hose OK Nozzles OK
Wiring OK Piping OK
Pressurized system NO Fire impact valves None

Pumps (hand-operated)

No. in use 0 Type of liquid _____

Tanks

No. in use 1 Capacity each 1-500 gal Oil & Gas
No. out of use 0 Capacity each _____

Fill pipes

Sizes: #1 3" #2 _____ #3 _____ #4 _____
Location OK Identification OK
Protection OK Tight connection yes

Vents

Sizes: #1 1 1/2" #2 _____ #3 _____ #4 _____
Manifold NO Size header _____
Type: Automatic yes Flame arrester None
Location OK Discharge OK

Extinguishers

Number _____ Size _____ Type _____ Date _____
Number _____ Size _____ Type _____ Date _____

Type of Station

Retail NO Pump operators licenses N/A
Private yes Storage permit? yes

Form C of D-171-1N (Rev. 5-67)

Notice No. None Issued to Shirley Infante (W, R)

REMARKS

None

Condition referred to other depts. None

Time required to make inspection 50mi
Coony Mitchell Fire Inspector

Detroit Fire Department
FIRE MARSHAL DIVISION
250 W. Larned St.
Detroit, Michigan 48226
Phone 596-2963

INSPECTION REPORT

Handwritten initials

508

Account No. 26-8670-08601-85-001121

Effective Date of Permit 7/01/89

Expiration Date of Permit 6/30/90

Assigned to *Hyles*

Inspected 7/31 19 89

Violation No. *None*

Issued to CITY OF DETROIT-PARKS & RECREA
CITY OF DETROIT
00735 RANDOLPH
DETROIT MI 48226

Final reinspection _____ 19 _____

Sr. Inspector *J. Berg*

Signed *Hyles*

Location 18601 BERG RD

Census Tract 5414

030-03-00 PUBLIC ASSEMBLY
COMM/REC BLDG UNDER 10,001 SQ FT

060-01-00 SERVICE AND/OR STORAGE GARAGE
1000 SQ. FT-SERVICE & STORAGE GAR

130-03-00 STORAGE OF FLAMMABLE LIQUIDS
LIQUIDS 501 - 5,000 GALS

Amount

Total \$

Comments:

Add new owner

Delete old owner

Other change

No change

DETROIT FIRE DEPARTMENT FIRE MARSHAL DIVISION

LICENSE INSPECTION Permit Assigned to: Hynes

Date 7/31 1989

- 1. Address 18601 Berg Rd
- 2. Occupied as Club House - Public Assembly Rental Hall
- 3. Name of establishment Rogell Golf Course
- 4. Operated by KIRCHBAUM, Daniel Director
- 5. Residence address 1/2 735 Randolph
- 6. Bldg. owned by CITY OF DETROIT
- 7. Address of owner 1/2 735 Randolph
- 8. License classification RENTAL HALL
- 9. Capacity 88 Club House 128 Rental Hall Posted? yes
- 10. Floor located on 1ST FLOOR
- 11. Number, size and location of exits 2 - Base (Now Assembly)
3 - 1st Floor
(1-36" FRONT (1-36" each side of Bldg))
Are they adequate? yes
- 12. Panic hardware on exit doors: Yes yes No -
Explain _____
- 13. Exit signs: Yes ✓ No - Illuminated? NO
- 14. Exit doors swing: Out ✓ In - Explain -
- 15. Motion pictures shown? None With permit? -
- 16. Kitchen? OK Housekeeping OK
- 17. Dressing room? None Posted "No Smoking"? -
- 18. Type heating plant Oil Fired HW Boiler
Condition OK

19. Number and type of fire extinguishers 1-15 lb CO₂ 15 lb
1-15 lb CO₂ 15 lb

Date of recharge 8- 1988

20. Decorations OK

21. GENERAL HOUSEKEEPING OK

22. Remarks THIS IS A 1413 TYPE III BLDG
BASEMENT NOT OCCUPIED
FOR ASSEMBLY

Referred to other Departments None

Notice No. None issued: _____

Eileen Eggleston - Ass't. Mgr
PH # 935-5332

Date investigated 7/31 1989
by Hynes Fire Inspector

Re-inspection by _____

Notice complied _____ 19 _____

LICENSE APPROVED _____
Fire Inspector

DETROIT FIRE DEPARTMENT

Fire Marshal Division

District No. 5414

Type Inspection PA, FLAM Lig

PA, FLAM Lig

Hour 1430 M. Date 7/31 1989

Location 18601 Berg

Occupied by Regell Golf Course

Stories 1+N3 Construction TYPE III

Occupied as PRO SHOP

Bldg. owned by CITY OF DETROIT - RECREATION DEPT.

Executive official RAY GLENN - GOLF PRO.

Address 410 735 RANDOLPH

Residence address 410 18601 BERG RD

BUILDING

Has bldg. fire walls? NONE Are fire wall openings protected? —

Fire wall doors are: automatic — self-closing — manual —

Are all fire wall fire doors operative? — Are all other fire doors operative? NONE

Are elevator shafts enclosed or open? NONE Do all doors and gates operate properly? —

Are all other floor openings, including stairways, protected? NONE

Are all stairwell fire doors self-closing? — Were they closed at time of inspection? —

Number of exits each floor? 2-1ST

Are exits marked? NO Are exits properly maintained? YES

Are exits adequate? YES If not, explain —

Revolving Doors? NONE Type — Operative? —

Do floors appear overloaded? NO What floors? —

What is means of access to roof? NONE

Was roof opening unlocked? —

How is building heated? Electric Unit Heater

Condition of heating apparatus, including smoke pipes, heat ducts, etc. (if defective, describe) OK

Condition of electrical wiring? (If defective, explain) OK

OK

OCCUPANCY

Housekeeping (If poor, give details) OK

Is elevator pit clean? —

Kinds and amounts of inflammable liquids handled? NONE

How and where stored? —

Permit? —

Any special hazards (material detrimental to firemen)? Give details NONE

Is smoking permitted? NO When and where? —

Location of welding and cutting operations NONE

Any acetylene apparatus? NONE Permit? —

Ventilating system? NONE Air conditioning? NONE

Condition of plenum chambers? NONE

Is there a sprinkler system? None Wet _____ Dry _____

Sources of supply and capacity of each? _____

Were control valves open? _____ Were control valves sealed? _____

Are control valves readily accessible? _____

Is sprinkler distribution obstructed at any point? _____

Condition of outside Fire Dept. connection? _____

Has bldg. a standpipe system? None Wet _____ Dry _____

Source of supply and capacity? _____

Size and type hose on standpipe? _____ Condition of hose? _____

Can Fire Dept. use standpipe outlets? _____

Number, size, type and location of fire extinguishers? None

Last service date? _____ Condition of extinguishers? _____

Amount, size and type of hose other than on standpipe? None

Condition of hose? _____

Outline procedure for notifying Detroit Fire Dept. in case of fire: Phone

Conditions referred to other Departments? None

Regarding violations found, interviewed R. Glenn Title Gold Pro

Notice No. None issued as follows: _____

Time required to make inspection: 1 hr / 15 min

Fire Inspector

DETROIT FIRE DEPARTMENT
Fire Marshal Division

District No. 5414 Type Inspection PA Flammable Hour 1445 M. Date 7/31 1989
 Location 18601 Berg Rd Occupied by Rogell Golf Course
 Stories 4 Construction TYPE III Occupied as Club House, Rental Hall
 Bldg. owned by City of Detroit Executive official Daniel Kirchbaum - Director
 Address CA 18601 Berg Rd Residence address 1/2 E SAME

BUILDING

Has bldg. fire walls? NONE Are fire wall openings protected? —
 Fire wall doors are: automatic — self-closing — manual —
 Are all fire wall fire doors operative? — Are all other fire doors operative? YES
 Are elevator shafts enclosed or open? NONE Do all doors and gates operate properly? —
 Are all other floor openings, including stairways, protected? NO
 Are all stairwell fire doors self-closing? — Were they closed at time of inspection? —
 Number of exits each floor? 2 - BASEMENT
3 - 1ST FLOOR
 Are exits marked? YES Are exits properly maintained? YES
 Are exits adequate? YES If not, explain —
 Revolving Doors? NONE Type — Operative? —
 Do floors appear overloaded? NO What floors? —
 What is means of access to roof? NONE
 Was roof opening unlocked? —
 How is building heated? Oil HW Boilers
 Condition of heating apparatus, including smoke pipes, heat ducts, etc. (if defective, describe) OK
500 gal Oil Fuel Oil Tank
Vent & Fill OK
 Condition of electrical wiring? (If defective, explain) OK
 General condition of building (structurally)? OK

OCCUPANCY

Housekeeping (If poor, give details) OK
 Is elevator pit clean? —
 Kinds and amounts of inflammable liquids handled? NONE
 How and where stored? —
 Permit? —
 Any special hazards (material detrimental to firemen)? Give details NONE
 Is smoking permitted? yes When and where? the out
 Location of welding and cutting operations NONE
 Any acetylene apparatus? NONE Permit? —
 Ventilating system? YES Air conditioning? YES
 Condition of plenum chambers? NONE

FIRE PROTECTION

Is there a sprinkler system? None Wet _____ Dry _____
Sources of supply and capacity of each? _____

Were control valves open? _____ Were control valves sealed? _____
Are control valves readily accessible? _____

Is sprinkler distribution obstructed at any point? _____

Condition of outside Fire Dept. connection? _____

Has bldg. a standpipe system? None Wet _____ Dry _____
Source of supply and capacity? _____

Size and type hose on standpipe? _____ Condition of hose? _____
Can Fire Dept. use standpipe outlets? _____

Number, size, type and location of fire extinguishers? 1-15 lb CO₂ 138
1-15 lb CO₂ Base

Last service date? 8-88 Condition of extinguishers? OK

Amount, size and type of hose other than on standpipe? None

Condition of hose? _____
Outline procedure for notifying Detroit Fire Dept. in case of fire: Phone

Conditions referred to other Departments? None

Regarding violations found, interviewed E. Eggleston Title ASST MGR

Notice No. None issued as follows: _____

Time required to make inspection: _____

20 min
11/1/88

Fire Inspector

DETROIT FIRE DEPARTMENT — FIRE MARSHAL DIVISION
GARAGE AND SERVICE STATION INSPECTION

Hour 1400 M
 Date 7/31 1989

District No. 5414
 Location 18601 Berg Road Business name Rogell Golf Course
 Proprietor(s) Daniel Kirchbaum-Diericke Owner of property City of Detroit
 Home address 40 18601 Berg Road Address of owner 910 735 Randolph

GARAGE

Classification: Repair Storage Service

Building

Area per floor _____ Total area 1000
 No. stories 14NB Construction TYPE III
 Firewall doors yes Stairwell doors none
 Partition walls yes Ceiling PLASTER BOARD
 Exits 3 Pits none
 Mixed occupancy yes Separation OK

Heating

OIL FURNACE - OFFICE ONLY
 Type of heat _____ Location of heater _____
 Separation OK Ducts OK

Open-Flame Devices

Describe None

Fuel Gas Torches/Units

Number of torches none Permit _____ Condition _____
 Gas Storage _____ Amount _____
 Permit _____ Condition _____

Electrical

Condition of wiring OK Fuses OK

Spray painting

Booth or room none Electrical _____ Ventilation _____
 Sprinkler system _____ Paint storage _____
 Condition _____

Housekeeping

General OK Metal receptacles OK

Extinguishers

Number 1 Size 4A40BSC Type _____ Date 8-88

SERVICE STATION

Pumps (power-operated) (Pressurized System)

No. in use 1 No. out of use None
 No. of Class I 1 Class II _____ Class III _____
 Location OK Segregated N/A
 Hose OK Nozzles OK
 Wiring OK Piping OK
 Pressurized system None Fire impact valves _____

Pumps (hand-operated)

No. in use None Type of liquid _____

Tanks

No. in use 1-1000gal Capacity each 4 GRT
 No. out of use None Capacity each _____

Fill pipes

Sizes: #1 3" #2 _____ #3 _____ #4 _____
 Location OK Identification OK
 Protection OK Tight connection OK

Vents

Sizes: #1 1 1/2" #2 _____ #3 _____ #4 _____
 Manifold None Size header _____
 Type: Automatic _____ Flame arrester _____
 Location OK Discharge OK

Extinguishers

Number _____ Size _____ Type _____ Date _____
 Number _____ Size _____ Type _____ Date _____

Type of Station

Retail _____ Pump operators licenses _____
 Private ✓ Storage permit? yes

Detroit Fire Department
FIRE MARSHAL DIVISION
250 W. Larned St.
Detroit, Michigan 48226
Phone 596-2963

INSPECTION REPORT

MD

529

Account No. **26-8670-08601-85-001121**

Effective Date of Permit **7/01/90**

Expiration Date of Permit **6/30/91**

Assigned to C.H. Cooper

Inspected 7-6 19 90

Violation No. None

Issued to **CITY OF DETROIT-PARKS & RECREA
CITY OF DETROIT
00735 RANDOLPH
DETROIT MI 48226**

Final reinspection _____ 19 _____

Sr. Inspector Tracy

Signed C.H. Cooper

Location **18601 BERG RD**

Census Tract **5414**

	Amount
030-03-00 PUBLIC ASSEMBLY COMM/REC BLDG UNDER 10,001 SQ FT	
060-01-00 SERVICE AND/OR STORAGE GARAGE 1000 SQ. FT-SERVICE & STORAGE GAR	
130-03-00 STORAGE OF FLAMMABLE LIQUIDS LIQUIDS 501 - 5,000 GALS	
Total	\$

Comments:

Add new owner Delete old owner Other change No change

**DETROIT FIRE DEPARTMENT — FIRE MARSHAL DIVISION
GARAGE AND SERVICE STATION INSPECTION**

Hour 1345 M

District No. 5414

Date 7-6 1990

Location 18601 Berg Rd.

Business name City of Detroit Parks & Rec

Proprietor(s) City of Detroit Parks & Rec.

Owner of property ←

Home address 735 Randolph Detroit 48206

Address of owner ←

GARAGE

Classification: Repair Storage Service

Building

Area per floor 1,000 Total area 1,000
 No. stories 1003 Construction Steel - Frame
 Firewall doors None Stairwell doors None
 Partition walls OK Ceiling steel
 Exits OK Pits NO
 Mixed occupancy NO Separation —

Heating

Type of heat Gas - F.A. Location of heater sep. Room
 Separation OK Ducts OK

Open-Flame Devices

Describe 0

Fuel Gas Torches/Units

Number of torches 0 Permit — Condition —
 Gas Storage — Amount —
 Permit — Condition —

Electrical

Condition of wiring OK Fuses OK

Spray painting

Booth or room None Electrical — Ventilation —
 Sprinkler system — Paint storage —
 Condition —

Housekeeping

General OK Metal receptacles yes

Extinguishers

Number 2 Size 10lb Type — Date 7-90

SERVICE STATION

Pumps (power-operated) (Pressurized System)

No. in use 1 No. out of use 0
 No. of Class I 1 Class II — Class III —
 Location OK Segregated yes
 Hose OK Nozzles OK
 Wiring OK Piping OK
 Pressurized system OK Fire impact valves N/A

Pumps (hand-operated)

No. in use 0 Type of liquid —

Tanks

No. in use 1 Capacity each 550 gal. gas
 No. out of use 0 Capacity each —

Fill pipes

Sizes: #1 3" #2 — #3 — #4 —
 Location OK Identification yes
 Protection yes Tight connection yes

Vents

Sizes: #1 1 1/2" #2 — #3 — #4 —
 Manifold — Size header —
 Type: Automatic ✓ Flame arrester NO
 Location OK Discharge OK

Extinguishers

Number 2 Size 10lb Type P.C. Date 7-90
 Number — Size — Type — Date —

Type of Station

Retail — Pump operators licenses —
 Private ✓ Storage permit? yes

From: Fire Marshal Division
Detroit Fire Department

CDS

Number 1507668

Date 7-6 1990

- To: Building Bureau
 Safety Engineering Bureau
 Electrical Bureau
 Wayne County Dept. of Health—
 Air Pollution Control Div.

- Health Department
 Industrial Hygiene
 Sanitation Division — EPM
 Sewer Division — Water Dept.
 Environmental Enforcement Bureau — EPM

The following condition has been brought to our attention and is referred to your Department for investigation and disposition. A report of your findings is requested.

Building location 18601 BERG

Name of Owner or Occupant CITY OF DETROIT PARK & REC

Address 735 RANDOLPH Occupied as GOLF CLUB

Nature of complaint
QUESTIONABLE INSTALLATION
OF A.G. FUEL OIL TANK
IN BASEMENT

Inspector D. L. Robinson
C of D-566-RE (Rev. 1-75)

DONALD L. ROBINSON, Fire Marshal

DETROIT FIRE DEPARTMENT FIRE MARSHAL DIVISION

LICENSE INSPECTION

Assigned to: C.A. Cooper

Date 7-6 1990

- 1. Address 14601 Berg Rd.
- 2. Occupied as Rental
- 3. Name of establishment City of Det. Parks & Rec (Rogers)
- 4. Operated by Capt Towne mgr
- 5. Residence address 735 Randolph Ave. 48226
- 6. Bldg. owned by City of Detroit
- 7. Address of owner Above
- 8. License classification Rental
- 9. Capacity 128 Posted? yes
- 10. Floor located on 1st
- 11. Number, size and location of exits 2 1-35"
dbl 36"
- Are they adequate? yes
- 12. Panic hardware on exit doors: Yes No
Explain _____
- 13. Exit signs: Yes No Illuminated? no
- 14. Exit doors swing: Out In Explain _____
- 15. Motion pictures shown? no With permit?
- 16. Kitchen? yes Housekeeping OK
- 17. Dressing room? no Posted "No Smoking"?
- 18. Type heating plant oil - boiler - steam
Condition OK

- 19. Number and type of fire extinguishers 1-5lb. CO2, 1-2 1/2 gal
water
- Date of recharge 4- 1990
- 20. Decorations OK
- 21. GENERAL HOUSEKEEPING OK
- 22. Remarks This is a 11B
Constance Eggleston ph# 935-5332
- Referred to other Departments _____
- Notice No. _____ issued: _____
- oil leaking into basement from
U.C. Tank. notified Capt. Smith & Berne
SOB dispatched
- Date investigated 7-6 1990
by C.A. Cooper Fire Inspector

Re-inspection by _____
 Notice complied _____ 19 _____
 LICENSE APPROVED _____
 Fire Inspector

DETROIT FIRE DEPT.

COMPLAINT
REQUEST
SPECIAL

FIRE INVEST.
ZONING
SPRINKLER/
STANDPIPE

413
5414
FIRE MARSHAL DIVISION
CMA

Location 18601 BERG

Information _____

FUEL OIL U.G. TANK LEAK

108277

Made by CONSTANCE EGLESTON Address PUBLIC SERVICE ATTENDANT

Received by 605 Date 7-6 19 90

Phone _____ Mail _____ Person _____ Time 1200 M.

Assigned to 605 Date 7-6-90 Time 1200

Radio Telephone _____ Person _____

Form C of D-58-CO (Rev. 4-69)

Business Name BILLY ROBELO GOLF COURSE Type Occupancy APR SITOP

Stories 1 1/2 Construction ORDINARY Person Contacted & Title CONSTANCE EGLESTON

Owner CITY OF DETROIT Address PUBLIC SERVICE ATTENDANT

Occupant BILLY ROBELO GOLF COURSE Address 18601 BERG 48219
935-5332

Details of Investigation 735 RANDOLPH - BOB HOLLAND, 224-1189

CHECKED SEWERS IN BASEMENT - 0 LEAKS.
CHECKED SEWER ON NORTH SIDE OF REARS.
CHECKED SEWER ON EAST SIDE OF REARS.
TALKED TO CONSTANCE EGLESTON, MGR.
STATED OLD U.G. FUEL OIL TANK IN
FRONT OF BUILDING HAS BEEN LEAKING
SINCE DECEMBER - IT IS USED FOR THE
BUILDING TO HEAT BUILDING. - SOMETIME DURING
A NEW TANK WAS INSTALLED IN BASEMENT.
W/ TO REMOVE LEAKING TANK AND MAKE
REPAIRS ON NEW TANK - SUGGEST FOLLOW
UP

Date of Investigation 7-6-90 Time 1200

Signed A. Clark
Inspector

Business Name _____ Type Occupancy _____
Stories _____ Construction _____ Person Contacted & Title _____
Owner _____ Address _____
Occupant _____ Address _____

Details of Investigation STUFFED RAGS IN SEWER IN BASEMENT,
STUVE GARDNER - BLDG-MECH, MAINT DIV.
PARK + REC, ARRIVED ON SCENE HE
STATED HE KNEW ABOUT LEAK AND
WOULD GET SOMEONE TO PUMP TANK
DRY AND GET SOMEONE TO CLEAN
UP FUEL OIL IN BASEMENT - SUGGEST
FOLLOW-UP ON NIGHTS BUILDING
WILL BE OPEN TO 2200 HRS

Date of Investigation 7-6-90 Time 1200 Signed A. Cook
C of D-58-CO(3-79) PAGE 2 OF 2 PAGES Inspector

DETROIT FIRE DEPARTMENT

Fire Marshal Division

250 W. Larned Street

Fire Headquarters

Phone: 224-2033

5414
4156
2, 111.

CAS

Notice of Violations Date 7-6, 1990

To DANIEL H. KRITZBAUM
PARKS & RECREATION Bus.
CITY OF DETROIT Phone: 935-5832
735 LARNED ST.

The following orders are issued for the correction of hazardous conditions found upon inspection of the premises located at

Address 18601 BERG

Firm Name BILLY BOGELL GOLF COURSE

These orders must be complied with AT ONCE:

REMOVE THE U.G.I.
LEAKING FUEL OIL
TANK (UNKNOWN SIZE)
AT 18601 BERG RD.
AS PER ORDINANCE 5434
AND M.F.P.A. # 30, SECTION
2-7 + 3-7, "NOBODY THIS
DIVISION AT LEAST 24 HRS
PRIOK TO REMOVAL, SO AN
INSPECTOR CAN WITNESS
"SAME" BEEN FILL
EVACUATION TO GRADE LEVEL
LEFT WITH GUARANTEE
EGGESTON, MFR

18601 BERG

WARNING: Fire or injury resulting from delay or failure to comply with this notice will be attributed to negligence on the part of the responsible party or parties.

By Order of DONALD L. ROBINSON Fire Marshal.

Insp. A. C. Long

01610

**DETROIT FIRE DEPARTMENT — FIRE MARSHAL DIVISION
GARAGE AND SERVICE STATION INSPECTION**



Hour 1510 M
Date 11-15 1991

District No. 5414
Location 18601 Berg Rd
Proprietor(s) Cynthia Higgs # 935-5268
Home address 18601 Berg Rd. Det 48219

Business name City of Det - Parks & Recreation
Owner of property City of Detroit
Address of owner 735 Randolph Det 48226

GARAGE

Classification: Repair Storage Service

Building

Area per floor _____ Total area 1000 sq ft
No. stories 1 EMB Construction Steel
Firewall doors NONE Stairwell doors NONE
Partition walls STEEL Ceiling STEEL
Exits 1 Pits 0
Mixed occupancy NO Separation _____

Heating

Type of heat Oil Fired Location of heater 8th ABOVE CONCRETE
Separation OK Ducts OK

Open-Flame Devices

Describe NONE

Fuel Gas Torches/Units

Number of torches NONE Permit _____ Condition _____
Gas Storage _____ Amount _____
Permit _____ Condition _____

Electrical

Condition of wiring OK Fuses Circuit Breakers

Spray painting

Booth or room NONE Electrical _____ Ventilation _____
Sprinkler system _____ Paint storage _____
Condition _____

Housekeeping

General OK Metal receptacles yes

Extinguishers

Number 1 Size 2A 10B-C Type D.C. Date 11/91

SERVICE STATION

Pumps (power-operated) (Pressurized System)

No. in use 1 No. out of use 0
No. of Class I 1 Class II _____ Class III _____
Location OK Segregated N/A
Hose OK Nozzles OK
Wiring OK Piping OK
Pressurized system NO Fire impact valves N/A

Pumps (hand-operated)

No. in use 0 Type of liquid _____

Tanks

No. in use 1 LI-G TIC Capacity each 1-550 gal LI-G TIC
No. out of use 0 Capacity each _____

Fill pipes

Sizes: #1 3" #2 _____ #3 _____ #4 _____
Location OK Identification OK
Protection OK Tight connection yes

Vents

Sizes: #1 2" #2 _____ #3 _____ #4 _____
Manifold NO Size header _____
Type: Automatic yes Flame arrester NO
Location OK Discharge OK

Extinguishers

Number _____ Size _____ Type _____ Date _____
Number _____ Size _____ Type _____ Date _____

Type of Station

Retail NO Pump operators licenses N/A
Private yes Storage permit? yes

Form C of D-171-IN (Rev. 5-67)

Detroit Fire Department
FIRE MARSHAL DIVISION
250 W. Larned St.
Detroit, Michigan 48226
Phone 596-2963

INSPECTION REPORT

545

Account No. 26-8670-08601-85-001121

Effective Date of Permit 7/01/92

Expiration Date of Permit 6/30/93

Assigned to Doyle

Inspected 2-1 1993

Violation No. # 95082

Final reinspection _____ 19____

Sr. Inspector [Signature]

Signed Doyle

Issued to CITY OF DETROIT-PARKS & RECREA
CITY OF DETROIT
00735 RANDOLPH
DETROIT MI 48226

Location 18601 BERG RD

Census Tract

5414

030-03-00 PUBLIC ASSEMBLY
COMM/REC BLDG UNDER 10,001 SQ FT

060-01-00 SERVICE AND/OR STORAGE GARAGE
1000 SQ. FT-SERVICE & STORAGE GAR

130-03-00 STORAGE OF FLAMMABLE LIQUIDS
LIQUIDS 501 - 5,000 GALS

Amount

Total

\$

Comments:

Item # 25,402

Add new owner

Delete old owner

Other change

No change

Carl Towne - Mgr. Remove Soda Acid
18601 Berg 48219

Arden Perry - Sr. P.S.A.

935-5331-2

7up III

1 NB
~~935-5268~~ Club House

B

2nd floor
500 sq. ft. carpet
Kon W. Sullivan
asst
Susan Keiper
Garage

2
EXITS signs
on key operator
deadbolt
Basement
5 exits
2 north secured
3 south - secured
areas

Bas. Boiler

88

1 - 72" N - swing in
1 - 36" S - swing out
1 - 36" E swing in

1 - 72" N - swing in

1 - 36" S - swing out

1 - 36" E swing in

**DETROIT FIRE DEPARTMENT — FIRE MARSHAL DIVISION
GARAGE AND SERVICE STATION INSPECTION**

Hour 1705 M

Date 2-1-93 1993

District No. 5414

Location 18601 BERG

Business name GOLF COURSE MAINT BLDG.

Proprietor(s) CITY OF DETROIT

Owner of property DR. CARL TOWNE - MGR.

Home address 735 RANDOLPH; 26

Address of owner ← SAME

GARAGE

Classification: Repair Storage Service

Building

Area per floor 1000 sq Total area 1000 sq
 No. stories 1 NB Construction 9400 III
 Firewall doors none Stairwell doors none
 Partition walls OK Ceiling 2" MILL
 Exits 1 Pits none
 Mixed occupancy none Separation -

Heating

Type of heat GAS Location of heater F.A.
 Separation 1 HOUR PROTECTIVE Ducts OK

Open-Flame Devices

Describe none

Fuel Gas Torches/Units

Number of torches 0 Permit - Condition -
 Gas Storage none Amount -
 Permit - Condition -

Electrical

Condition of wiring OK Fuses OK

Spray painting

Booth or room none Electrical - Ventilation -
 Sprinkler system - Paint storage -
 Condition -

Housekeeping

General OK Metal receptacles OK

Extinguishers

Number 3 Size 30 Type BC Date 1-93

SERVICE STATION

Pumps (power-operated) (~~Pressurized~~ System)

No. in use 1 No. out of use none
 No. of Class I ✓ Class II - Class III -
 Location OK Segregated OK
 Hose OK Nozzles OK
 Wiring OK Piping OK
 Pressurized system none Fire impact valves -

Pumps (hand-operated)

No. in use none Type of liquid A.G.

Tanks

No. in use 1 Capacity each 500 gal U.G.
 No. out of use - Capacity each -

Fill pipes

Sizes: #1 3" #2 - #3 - #4 -
 Location OK Identification OK
 Protection OK Tight connection OK

Vents

Sizes: #1 1 1/2" #2 - #3 - #4 -
 Manifold none Size header none
 Type: Automatic yes Flame arrester not used
 Location OK Discharge OK

Extinguishers

Number 1 Size 3 Type 30BC Date 1-93
 Number - Size - Type - Date -

Type of Station

Retail - Pump operators licenses -
 Private X Storage permit? yes

Form C of D-171-1N (Rev. 5-67)

Notice No. none Issued to _____

060-01-00 Service + steel gas
1000 ϕ

130-03-00 FLS 501-5,000 gals.

REMARKS

Condition referred to other depts. none

Time required to make inspection J. Doyle 35 min
Fire Inspector

DETROIT FIRE DEPARTMENT

Fire Marshal Division

250 W. Larned Street 596-2937

Fire Headquarters

Phone: 224-2033

5414
PERM.
GOLF CLUBHOUSE

Notice of Violations

Date 2-1, 1993

To CARL TOWNE - MANAGER
C/O 18601 BERG

Bus. 935-5331
Phone:

The following orders are issued for the correction of hazardous conditions found upon inspection of the premises located at

Address 18601 BERG

Firm Name PARKS & RECREATION GOLF COURSE

These orders must be complied with AT ONCE:

① REMOVE THE OBSOLETE SODA-ACID FIRE EXTINGUISHER FROM THE 1ST FLOOR LOBBY AREA. SAID EXTINGUISHER IF USED COULD CAUSE PERSONAL INJURY AND/OR MAL-FUNCTION THUS CREATING A FIRE HAZARD. AS PER ORD. 593-11, CHAP. 19

② RECHARGE ALL UNCHARGED APPROVED "ABC" FIRE EXTINGUISHERS AND TAG W/ SERVICE DATE TAG. MOUNT AND POST SIGNAGE TO IDENTIFY FIRE EXTINGUISHER LOCATION.

WARNING: Fire or injury resulting from delay or failure to comply with this notice will be attributed to negligence on the part of the responsible party or parties.

By Order of DONALD J. ROBINSON Fire Marshal.

Insp. Seth Rapp

18601 BERG

95082

DETROIT FIRE DEPARTMENT FIRE MARSHAL DIVISION

Doyle

Date 2-2 19 93

LICENSE INSPECTION

Assigned to:

1. Address 18601 BERG RD.
 2. Occupied as CLUBHOUSE
 3. Name of establishment City of Detroit Golf Course
 4. Operated by "
 5. Residence address "
 6. Bldg. owned by City of Detroit
 7. Address of owner 1/2 PARKS + Rec. 735 Randolph Det. 48226
 8. License classification "A"
 9. Capacity 88 Posted? yes
 10. Floor located on 1ST
 11. Number, size and location of exits 1- 72" North,
 1- 36" South, 1- 36" East

1- 36" Basement to 1st floor
 Are they adequate? yes
 12. Panic hardware on exit doors: Yes No
 Explain

13. Exit signs: Yes No Illuminated? no
 14. Exit doors swing: Out In Explain
 North exit to East exit swing in
 - previously approved

15. Motion pictures shown? none With permit?
 16. Kitchen? yes Housekeeping OK
 17. Dressing room? none Posted "No Smoking"?
 18. Type heating plant Gas - Boiler - boiler
 Condition OK

19. Number and type of fire extinguishers 3-4A:40BC

Date of recharge 1-91 19

20. Decorations OK

21. GENERAL HOUSEKEEPING OK

22. Remarks 1+B, Type III

(SECURED)
BASEMENT USED FOR STORAGE & RESTROOM.

Referred to other Departments none

Notice No. #95082 issued:

Contacted w/ Andrea Perry Sr. P.S.A.
#935-5331

Date investigated 2-1-19 93
by S. Doyle Fire Inspector

Re-inspection by

Notice complied 19

LICENSE APPROVED

Fire Inspector

DETROIT FIRE DEPARTMENT

Fire Marshal Division

250 W. Larned Street 596-2937

Fire Headquarters

Phone: 224-2033

5414
PERMIT
GOLF CLUB HOUSE

Notice of Violations

Date 2-1 1993

To CARL TOWNE - MANAGER

c/o 18601 BERG

Bus. 935-5331
Phone:

The following orders are issued for the correction of hazardous conditions found upon inspection of the premises located at

Address 18601 BERG

Firm Name PARKS + RECREATION GOLF COURSE

These orders must be complied with AT ONCE:

① REMOVE THE OBSOLETE SODA-ACID FIRE EXTINGUISHER FROM THE 1ST FLOOR LOBBY AREA. SAID EXTINGUISHER IF USED COULD CAUSE PERSONAL INJURY AND/OR MAL-FUNCTION THUS CREATING A FIRE HAZARD. AS PER ORD. 593-11, CHAP. 19.

② RECHARGE ALL UNCHARGED APPROVED "ABC" FIRE EXTINGUISHERS AND TAG w/ SERVICE DATE TAG, MOUNT AND POST SIGNAGE TO IDENTIFY FIRE EXTINGUISHER LOCATION. NFPA #10

WARNING: Fire or injury resulting from delay or failure to comply with this notice will be attributed to negligence on the part of the responsible party or parties.

By Order of _____ Fire Marshal.

Insp. Scott Doyle

18601 BERG

280056 ✓

REINSPECTION RECORD

DATE	INSPECTOR	PERSON CONTACTED AND TITLE	EXT.
3-9-93	Doyle	Carl Towne - Mgr.	
Condition:	Items Complied -		
	ok to file.		
Condition:			
Condition:			
Condition:	PROPERTY FILE		
Condition:			
Condition:			
Condition:			

Detroit Fire Department
FIRE MARSHAL DIVISION
250 W. Larned St.
Detroit, Michigan 48226
Phone 596-2963

INSPECTION REPORT

WJ 548

Account No. **26-8670-08601-85-001121**

Assigned to William Myles

Effective Date of Permit **7/01/94**

Inspected February 8, 19 94

Expiration Date of Permit **6/30/95**

Violation No. _____

Issued to **CITY OF DETROIT-PARKS & RECREA
CITY OF DETROIT
00735 RANDOLPH
DETROIT MI 48226**

Final reinspection _____ 19 _____

Sr. Inspector *WJ*

Signed William Myles

Location **18601 BERG RD**

Census Tract **5414**

**030-03-00 PUBLIC ASSEMBLY
COMM/REC BLDG UNDER 10,001 SQ FT**

**060-01-00 SERVICE AND/OR STORAGE GARAGE
1000 SQ. FT-SERVICE & STORAGE GAR**

**130-03-00 STORAGE OF FLAMMABLE LIQUIDS
LIQUIDS 501 - 5,000 GALS**

Amount

Total	\$
-------	----

Comments:

Add new owner

Delete old owner

Other change

No change

FLAMMABLE LIQUIDS

Type: Flammable Combustible

I II IB IC II IIIA IIIB

Type of Storage: Open F.L. Cabinet U.G. Tanks

A.G. Tanks Inside Storage Rm. Outside Storage

Type of Container: Metal Glass Plastic Drum

How Used: Dip Tank Quench Tank Spray Booth or Room

Cleaner Solvent Product Finish Mfg. Process

Testing Fuel Other

If other describe: _____

Where stored and size of Containers: _____

Size of Dip and Quench Tanks: Dip Quench

No. _____ Size _____ gals. Flash Pt. _____

Dump Tank Capacity _____ gals. Temp Control: _____

Fire Protection: Yes No

Hazardous Chemicals

Type used, storage and handling procedures: _____

GASES

Type: Oxidizing Flammable Non-Flam. Toxic

How Used: Medical Testing Welding, Cutting or Brazing Other

If other describe: _____

Type of storage: Bulk Cylinder

Location of Storage Units and Control Valves: _____

Cubic Feet of Gas: _____

REMARKS: _____

DATE OF INSPECTION

DATE	WHOM	ACTION TAKEN	ENTERED BY
2/15/79	Brown	None	Murray

IN EMERGENCY CONTACT: WATCHMAN
Phone No.: 863-1300

**DETROIT FIRE DEPARTMENT — FIRE MARSHAL DIVISION
GARAGE AND SERVICE STATION INSPECTION**

Hour 1545 M

District No. 5414

Date February 8, 1994

Location 18601 Berg rd.

Business name William Rogell Golf Course

Proprietor(s) City of Detroit

Owner of property same

Home address 735 Randolph

Address of owner same

GARAGE

Classification: Repair Storage Service

Building

Area per floor 1,000 sq. ft. Total area 1,000 sq. ft.
 No. stories 1 1/2 Construction Masonry & frame
 Firewall doors No Stairwell doors —
 Partition walls — Ceiling 2" milled
 Exits OK Pits —
 Mixed occupancy — Separation —

Heating

Type of heat Oil burning heater Location of heater overhead
 Separation OK Ducts OK

Open-Flame Devices

Describe Hot water tank

Fuel Gas Torches/Units

Number of torches — Permit — Condition —
 Gas Storage — Amount —
 Permit — Condition —

Electrical

Condition of wiring OK Fuses OK

Spray painting

Booth or room — Electrical — Ventilation —
 Sprinkler system — Paint storage —
 Condition —

Housekeeping

General OK Metal receptacles OK

Extinguishers

Number 2 Size 10ABO Type BC Date 2-93

SERVICE STATION

Pumps (power-operated) (Pressurized System)

No. in use 1 No. out of use —
 No. of Class I 1 Class II — Class III —
 Location OK Segregated OK
 Hose OK Nozzles OK
 Wiring OK Piping OK
 Pressurized system — Fire impact valves —

Pumps (hand-operated)

No. in use — Type of liquid —

Tanks

No. in use 1 Capacity each 550 gal - unleaded
 No. out of use — Capacity each —

Fill pipes

Sizes: #1 4" #2 — #3 — #4 —
 Location OK Identification OK
 Protection OK Tight connection OK

Vents

Sizes: #1 2" #2 — #3 — #4 —
 Manifold — Size header —
 Type: Automatic OK Flame arrester —
 Location OK Discharge OK

Extinguishers

Number 1 Size 1616 Type CO² Date 2-13
 Number — Size — Type — Date —

Type of Station

Retail — Pump operators licenses —
 Private OK Storage permit? OK

Form C of D-171-IN (Rev. 5-67)

Notice No. _____ Issued to Angella Hipp

REMARKS

There are two, 250 gallon, metal tanks holding fuel oil for furnace located outside of garage at the North-West corner of the building. Approved diking and vents are in place.

Condition referred to other depts. None

Time required to make inspection 30 min.
William M. Myle Fire Inspector

DETROIT FIRE DEPARTMENT FIRE MARSHAL DIVISION

LICENSE INSPECTION Cab A

Assigned to: William Myles

Date February 19 94

- 1. Address 18601 Berg Rd.
- 2. Occupied as Club house
- 3. Name of establishment William Rogell Golf Course
- 4. Operated by City of Detroit
- 5. Residence address 735 Randolph
- 6. Bldg. owned by Same
- 7. Address of owner Same
- 8. License classification Cab A
- 9. Capacity 88 Posted? Yes
- 10. Floor located on 1st
- 11. Number, size and location of exits 1st floor - 2-36" front, 2-36" rear
Basement - 1-36" rear
- Are they adequate? Yes
- 12. Panic hardware on exit doors: Yes No
Explain Panic bar
- 13. Exit signs: Yes No Illuminated? Yes
- 14. Exit doors swing: Out In Explain
- 15. Motion pictures shown? No With permit?
- 16. Kitchen? Yes Housekeeping OK
- 17. Dressing room? No Posted "No Smoking"?
- 18. Type heating plant Gas fired boiler
Condition OK

- 19. Number and type of fire extinguishers 2-2A 10 B C
1-15 3/4 lb CO₂
- Date of recharge February 19 93
- 20. Decorations OK
- 21. GENERAL HOUSEKEEPING OK
- 22. Remarks
- Referred to other Departments None
- Notice No. issued: Steve Hurley

Date investigated February 8, 19 94
by William Myles Fire Inspector

Re-inspection by
Notice complied 19

LICENSE APPROVED
Fire Inspector

Detroit Fire Department
 FIRE MARSHAL DIVISION
 250 W. Larned St.
 Detroit, Michigan 48226
 Phone 596-2963

INSPECTION REPORT

666

Account No. 26-8670-08601-85-001121

Effective Date of Permit 7/01/95

Expiration Date of Permit 6/30/96

Assigned to Glenn Watson

Inspected [Signature] 2/14 19 95

Violation No. none

Issued to CITY OF DETROIT-PARKS & RECREA
 CITY OF DETROIT
 00735 RANDOLPH
 DETROIT MI 48226

Final reinspection _____ 19 _____

Sr. Inspector Mitchell

Signed Glenn Watson

Location 13601 BERG RD

Census Tract 5414

030-03-00 PUBLIC ASSEMBLY
 COMM/REC BLDG UNDER 10,001 SQ FT

060-01-00 SERVICE AND/OR STORAGE GARAGE
 1000 SQ. FT-SERVICE & STORAGE GAR

130-03-00 STORAGE OF FLAMMABLE LIQUIDS
 LIQUIDS 501 - 5,000 GALS

Amount

Total \$

Comments:

935-5332

Add new owner

Delete old owner

Other change

No change

Odette Adams / Cashier

PA

Riverview Room
88 people

Exit Front 32"
Side 32"

Feb 95
1026 BC
111

Banquet Room
Capacity
128

32 "
32 "

steam boiler

metal ceiling
one exit
Fuel oil

Fire Door

gasoline 550 gal
u.c. tank

Angela Hippo
green sup

Base
2X'S

6 1026 BC
810 ft

DETROIT FIRE DEPARTMENT

FIRE MARSHAL DIVISION

GM Date 2/14 19 95

LICENSE INSPECTION

Assigned to: Glenn WATSON

- 1. Address 18601 Berg Rd
- 2. Occupied as Banquet Hall & Meeting Room
- 3. Name of establishment Rodell Golf Course
- 4. Operated by City of Det. Parks & Recreation
- 5. Residence address 735 Randolph
- 6. Bldg. owned by City of Det
- 7. Address of owner 735 Randolph
- 8. License classification Hall
- 9. Capacity 88/128 Posted? yes
- 10. Floor located on First
- 11. Number, size and location of exits Front 32"
Side Double 32"
- Are they adequate? yes
- 12. Panic hardware on exit doors: Yes yes No —
Explain —
- 13. Exit signs: Yes yes No — Illuminated? NO
- 14. Exit doors swing: Out yes In — Explain —
- 15. Motion pictures shown? no With permit? —
- 16. Kitchen? yes Housekeeping ok
- 17. Dressing room? no Posted "No Smoking"? —
- 18. Type heating plant gas fired steam boiler
Condition ok

- 19. Number and type of fire extinguishers 3-10lb BC
- Date of recharge Feb 19 95
- 20. Decorations none
- 21. GENERAL HOUSEKEEPING ok
- 22. Remarks none
- Referred to other Departments none
- Notice No. none issued: —
- 030-03-00
- Date investigated Feb 14 19 95
by Glenn Watson Fire Inspector

Re-inspection by _____
 Notice complied _____ 19 _____
 LICENSE APPROVED _____
 Fire Inspector

**DETROIT FIRE DEPARTMENT — FIRE MARSHAL DIVISION
GARAGE AND SERVICE STATION INSPECTION**

601

District No. 5414 Hour 1555 M
 Location 18601 Berg Rd Business name Rodell Golf Course
 Proprietor(s) City of Detroit Owner of property Same
 Home address 735 Randolph Det. Mi. 48226 Address of owner Same

9.35-5332

GARAGE

Classification: Repair Storage Service

Building
 Area per floor 1000sf Total area 1000sf
 No. stories 1/FNB Construction Metal
 Firewall doors none Stairwell doors none
 Partition walls none Ceiling metal
 Exits one Pits none
 Mixed occupancy no Separation ---

Heating
 Type of heat fuel oil fired Location of heater '8'0H
 Separation ok Ducts ok

Open-Flame Devices
 Describe none

Fuel Gas Torches/Units
 Number of torches Permit Condition ---
 Gas Storage None Amount ---
 Permit --- Condition ---

Electrical
 Condition of wiring ok Fuses ok

Spray painting
 Booth or room None Electrical --- Ventilation ---
 Sprinkler system --- Paint storage ---
 Condition ---

Housekeeping
 General ok Metal receptacles ok

Extinguishers
 Number 6 Size 10lb Type BC Date Feb 95

SERVICE STATION

Pumps (power-operated) (Pressurized System)

No. in use 1 No. out of use ---
 No. of Class I 1 Class II --- Class III ---
 Location ok Segregated ok
 Hose ok Nozzles ok
 Wiring ok Piping ok
 Pressurized system ok Fire impact valves ok

Pumps (hand-operated)

No. in use none Type of liquid ---

Tanks

No. in use 1 Capacity each 550 gal
 No. out of use --- Capacity each ---

Fill pipes

Sizes: #1 3" #2 --- #3 --- #4 ---
 Location ok Identification ok
 Protection ok Tight connection ok

Vents

Sizes: #1 2" #2 --- #3 --- #4 ---
 Manifold --- Size header ok
 Type: Automatic yes Flame arrester ---
 Location ok Discharge ok

Extinguishers

Number 1 Size 10lb Type BC Date Feb 95
 Number --- Size --- Type --- Date ---

Type of Station

Retail --- Pump operators licenses ---
 Private yes Storage permit? SPL 501-5000 gals

Form C of D-171-1N (Rev. 5-67)

Detroit Fire Department
FIRE MARSHAL DIVISION
250 W. Larned St.
Detroit, Michigan 48226
Phone 224-2063

HS

INSPECTION REPORT

794

Account No. 26-8670-08601-85-001121

Effective Date of Permit 7/01/96

Expiration Date of Permit 6/30/97

Issued to CITY OF DETROIT-PARKS & RECREA
CITY OF DETROIT
00735 RANDOLPH
DETROIT MI 48226

Assigned to *LT. BATTIE*

Inspected *1 MAY* 19 *96*

Violation No. *NONE*

Final reinspection _____ 19 _____

Sr. Inspector *R Stamps*

Signed *S Batts*

Location 18601 BERG RD

Census Tract 5414

030-03-00 PUBLIC ASSEMBLY
COMM/REC BLDG UNDER 10,001 SQ FT

060-01-00 SERVICE AND/OR STORAGE GARAGE
1000 SQ. FT-SERVICE & STORAGE GAR

130-03-00 STORAGE OF FLAMMABLE LIQUIDS
LIQUIDS 501 - 5,000 GALS

Amount

Total \$

Comments:

PH. 935-5331

Add new owner

Delete old owner

Other change

No change

DETROIT FIRE DEPARTMENT FIRE MARSHAL DIVISION

(2)

LICENSE INSPECTION

Assigned to: LT. BATTLE

Date 1 MAY 19 96

- 1. Address 18601 BERL Rd.
- 2. Occupied as GOLF COURSE CLUB House
- 3. Name of establishment CITY OF DETROIT PARKS & REC.
- 4. Operated by CARL TOBIN
- 5. Residence address 18601 BERL Rd. 48219
- 6. Bldg. owned by CITY OF DETROIT
- 7. Address of owner 735 RANDOLPH DETROIT 48226
- 8. License classification REST. STAB. (51-10 SEATS)
- 9. Capacity 88 Posted? YES
- 10. Floor located on 1st
- 11. Number, size and location of exits 1 36 in EAST
1 36 in SOUTH
2 36 in NORTH FROM BASEMENT
Are they adequate? YES
- 12. Panic hardware on exit doors: Yes YES No —
Explain —
- 13. Exit signs: Yes YES No — Illuminated? NO
- 14. Exit doors swing: Out YES In YES Explain 1 36 in FRONT (S) DOOR SWINGS IN
- 15. Motion pictures shown? NONE With permit? NO
- 16. Kitchen? YES Housekeeping O.K.
- 17. Dressing room? NA Posted "No Smoking"? NO
- 18. Type heating plant GAS FIRED LOW PRESSURE BOILER
Condition O.K.

- 19. Number and type of fire extinguishers 3 A-A-60-BC DRY CHEM
- Date of recharge GAULT O.K. 19 95
- 20. Decorations O.K.
- 21. GENERAL HOUSEKEEPING O.K.
- 22. Remarks NONE
- Referred to other Departments NONE
- Notice No. NONE issued: —
- Date investigated 1 MAY 96 19 96
by Shane Battle Fire Inspector

Re-inspection by _____
 Notice complied _____ 19 _____
 LICENSE APPROVED _____
 Fire Inspector

**DETROIT FIRE DEPARTMENT — FIRE MARSHAL DIVISION
GARAGE AND SERVICE STATION INSPECTION**

(25)

Hour 0940 M

Date 7 MAY 19 96

District No. 5414

Location 18601 BERG Rd.

Business name PARKS & RECREATION GOLF COURSE

Proprietor(s) CITY OF DETROIT

Owner of property SAME

Home address 735 RANDOLPH DETROIT 48224

Address of owner SAME

935-5331

GARAGE

Classification: Repair Storage Service

Building

Area per floor 1,000 SQ FT. Total area 1,000 SQ FT.

No. stories 1 NB Construction STEEL / STEEL

Firewall doors NONE Stairwell doors NONE

Partition walls NONE Ceiling STEEL

Exits 1 O.K. Pits NONE

Mixed occupancy NONE Separation NONE

Heating

GAS FIRED FORCED

Type of heat AIR FURNACE Location of heater FRINGE ROOM O.K.

Separation O.K. Ducts YES

Open-Flame Devices

Describe NONE

Fuel Gas Torches/Units

Number of torches 0 Permit --- Condition ---

Gas Storage --- Amount ---

Permit --- Condition ---

Electrical

Condition of wiring O.K. Fuses O.K.

Spray painting

Booth or room NONE Electrical --- Ventilation ---

Sprinkler system --- Paint storage ---

Condition ---

Housekeeping

General O.K. Metal receptacles YES

Extinguishers

2 5lb CO2

Number 2 Size 4-A-60 Type BC Date CANCEL

SERVICE STATION

Pumps (power-operated) (~~Pressurized System~~)

No. in use 1 No. out of use 0

No. of Class I 1 Class II --- Class III ---

Location O.K. Segregated O.K.

Hose O.K. Nozzles O.K.

Wiring O.K. Piping O.K.

Pressurized system NA Fire impact valves O.K.

Pumps (hand-operated)

No. in use 0 Type of liquid 0

Tanks

No. in use 1 Capacity each 550 gals REG UNICERO.

No. out of use 0 Capacity each ---

Fill pipes

Sizes: #1 1 3/4" #2 --- #3 --- #4 ---

Location O.K. Identification O.K.

Protection O.K. Tight connection O.K.

Vents

Sizes: #1 1 1/2" #2 --- #3 --- #4 ---

Manifold --- Size header ---

Type: Automatic --- Flame arrester O.K.

Location O.K. Discharge O.K.

Extinguishers

Number --- Size --- Type --- Date ---

Number --- Size --- Type --- Date ---

Type of Station

Retail NA Pump operators licenses NA

Private YES Storage permit? YES

Form C of D-171-IN (Rev. 5-67)

Notice No. None Issued to CALL TOWN

REMARKS

060-01-00

130-03-00 FLS. TWO (2) 250 gal
FUEL OIL TANKS NEXT TO
BUDG. OK

Condition referred to other depts. None

Time required to make inspection 50 min S.

S. Banta

Fire Inspector

Detroit Fire Department
FIRE MARSHAL DIVISION
250 W. Larned St.
Detroit, Michigan 48226
Phone 596-2963

INSPECTION REPORT

P.W

314

Account No. 26-3670-08601-85-001121

Effective Date of Permit 7/01/97

Expiration Date of Permit 6/30/98

Issued to CITY OF DETROIT-PARKS & RECREA
CITY OF DETROIT
00735 RANDOLPH
DETROIT MI 48226

Assigned to O. Wilson

Inspected 4-9 19 98

Violation No. _____

Final reinspection _____ 19 _____

Sr. Inspector (13)

Signed O. Wilson

Location 18601 BERG RD

Census Tract 5414

030-03-00 PUBLIC ASSEMBLY
COMM/REC BLDG UNDER 10,001 SQ FT

060-01-00 SERVICE AND/OR STORAGE GARAGE
1000 SQ. FT-SERVICE & STORAGE GAR

130-03-00 STORAGE OF FLAMMABLE LIQUIDS
LIQUIDS 501 - 5,000 GALS

Amount

Total \$

Comments:

Add new owner

Delete old owner

Other change

No change

**DETROIT FIRE DEPARTMENT — FIRE MARSHAL DIVISION
GARAGE AND SERVICE STATION INSPECTION**

Hour 1200 M
Date 4-9 1998

District No. 5414
Location 12601 BERG
Proprietor(s) _____
Home address _____
Business name PARKS + REC.
Owner of property CITY OF DETROIT
Address of owner 735 RANDOLPH

GARAGE

Classification: Repair Storage Service

Building

Area per floor 1000 FT Total area 1000 FT
No. stories 1NB Construction MAS
Firewall doors NA Stairwell doors _____
Partition walls OK Ceiling MAS
Exits OK Pits NA
Mixed occupancy NA Separation NA

Heating

Type of heat GAS Location of heater BFT
Separation OK Ducts OK

Open-Flame Devices

Describe NA

Fuel Gas Torches/Units

Number of torches 1 Permit 1 Condition 1
Gas Storage 1 Amount 1
Permit 1 Condition 1

Electrical

Condition of wiring OK Fuses OK

Spray painting

Booth or room 1 Electrical 1 Ventilation 1
Sprinkler system 1 Paint storage 1
Condition 1

Housekeeping

General OK Metal receptacles OK

Extinguishers

Number 4 Size 10 Type B:C Date 98

SERVICE STATION

Pumps (power-operated) (Pressurized System)

No. in use 1 No. out of use _____
No. of Class I 1 Class II _____ Class III _____
Location OK Segregated _____
Hose OK Nozzles OK
Wiring OK Piping OK
Pressurized system OK Fire impact valves OK

Pumps (hand-operated)

No. in use _____ Type of liquid _____

Tanks

2 - 250 GAL DIESEL
No. in use 1 Capacity each 500 GAL. GAS
No. out of use _____ Capacity each _____

Fill pipes

Sizes: #1 3 #2 _____ #3 _____ #4 _____
Location OK Identification OK
Protection OK Tight connection OK

Vents

Sizes: #1 1.5 #2 _____ #3 _____ #4 _____
Manifold _____ Size header _____
Type: Automatic 1 Flame arrester _____
Location OK Discharge OK

Extinguishers

Number 2 Size 10 Type B:C Date 98
Number _____ Size _____ Type _____ Date _____

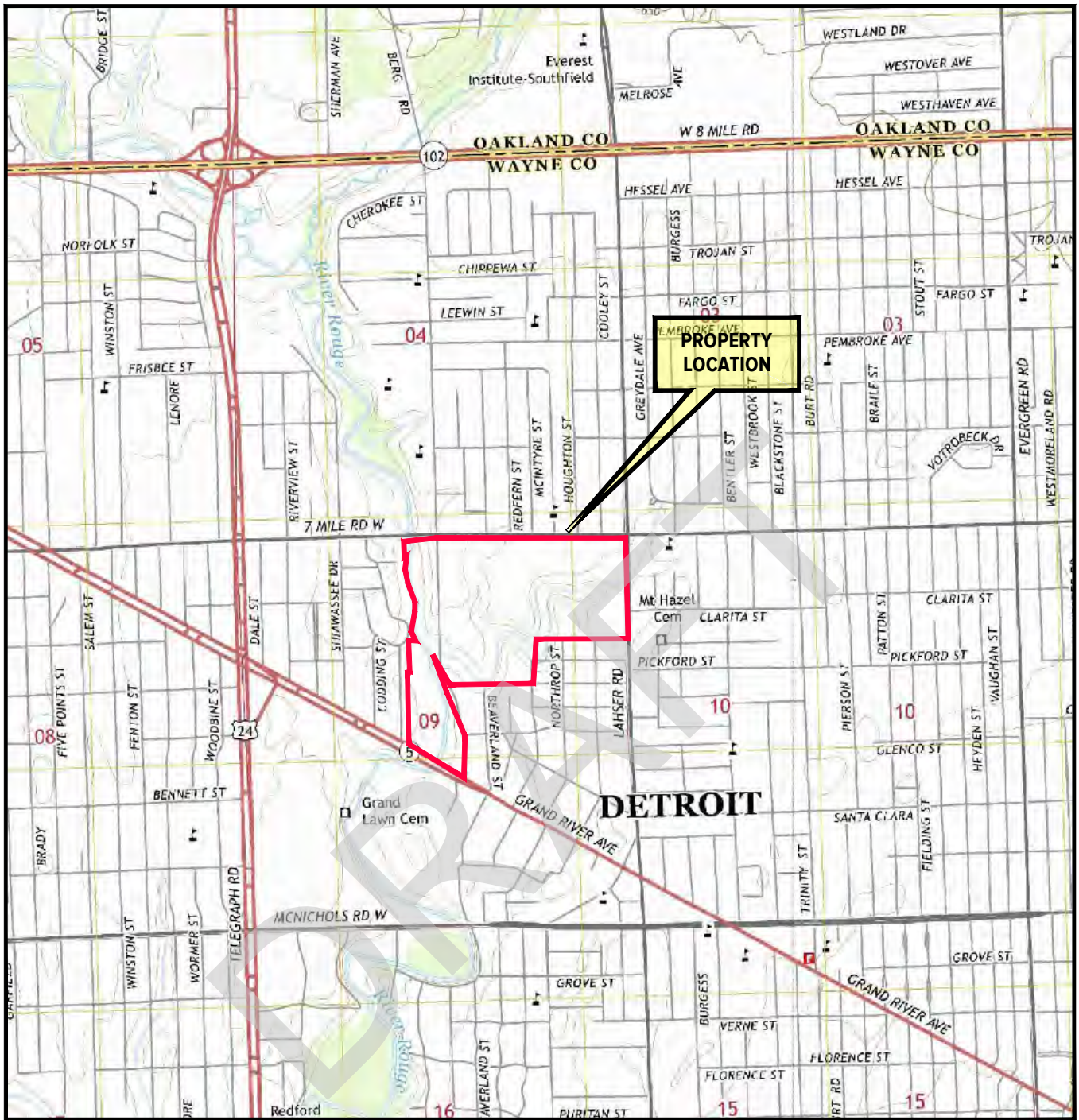
Type of Station

Retail YES Pump operators licenses OK
Private _____ Storage permit? _____

APPENDIX E

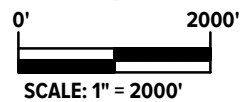
SUMMARY OF SME'S JANUARY 2018 PHASE II ESA SAMPLING RESULTS

DRAFT



Base map obtained from EDR.

USGS QUADRANGLE(S) REFERENCED
 REDFORD (MI) TOPO QUAD - 2014
 ROYAL OAK (MI) TOPO QUAD - 2014



No.	Revision Date	Date	12-19-17
		Drawn By	GM
		Designed By	AK
		Scale	1" = 2000'
		Project	077832.00.001.006

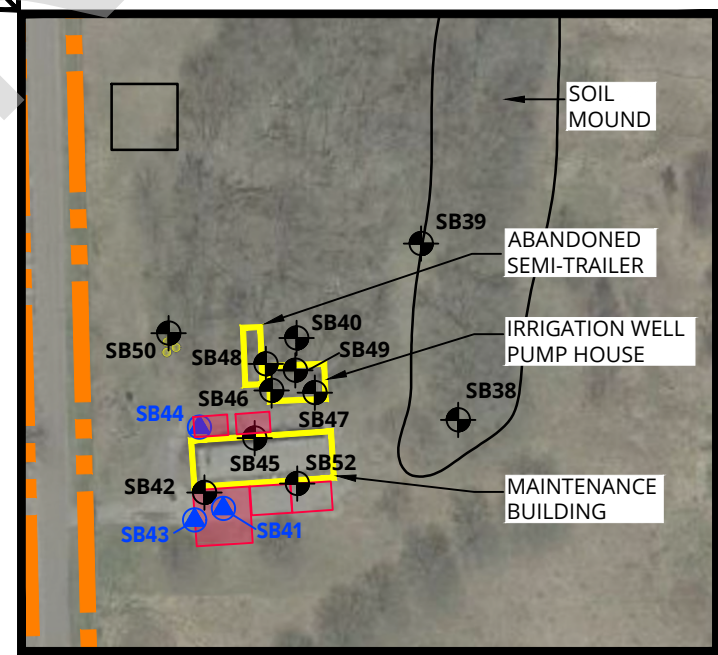
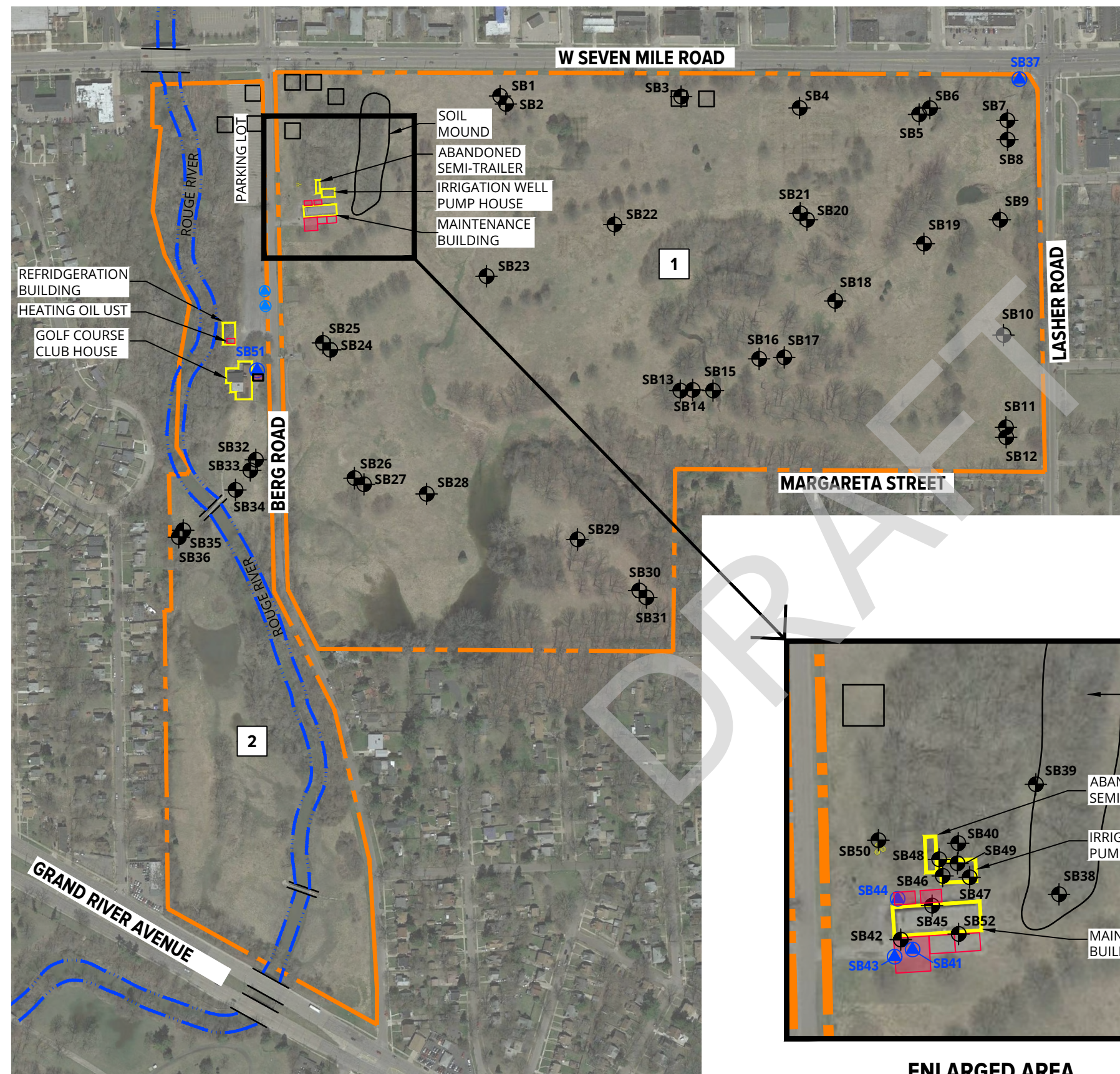
**PROPERTY LOCATION MAP
 FORMER ROGELL GOLF COURSE
 18600 - 18601 BERG ROAD
 DETROIT, MICHIGAN**



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Figure No. 1

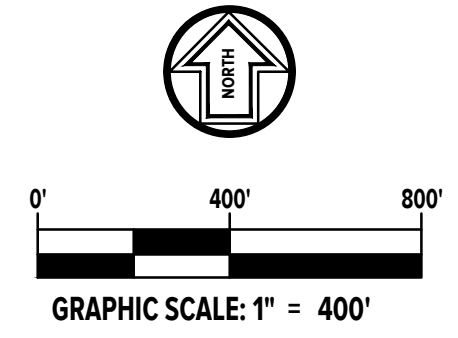
PLOT DATE: Feb 02, 2018 - 12:12pm - jblake FILE LOCATION: \\Sme-inc\p\WIP\077832.00\CAD\077832.00.001.006\rev\077832.00.001.006-SB.dwg



ENLARGED AREA
SCALE: 1" = 150'

LEGEND

- - - APPROXIMATE PROPERTY BOUNDARY
- EXISTING MONITORING WELLS
- ⊗ POLE-MOUNTED TRANSFORMERS
- FORMER LOCATION OF BUILDINGS
- FORMER LOCATION OF GASOLINE USTs
- GASOLINE AND DIESEL ASTs
- FORMER LOCATION OF DIESEL ASTs
- FORMER LOCATION OF HEATING OIL UST
- 18600 BERG ROAD
- 18601 BERG ROAD
- APPROXIMATE SOIL BORING LOCATION
- APPROXIMATE SOIL BORING LOCATION WITH TEMPORARY MONITORING WELL



NOTE:
DRAWING INFORMATION TAKEN FROM
GOOGLE EARTH PRO 2016 AERIAL PHOTO
AND SITE OBSERVATIONS.



Project
**FORMER ROGELL
GOLF COURSE**

Project Location
**18600 AND 18601
BERG ROAD
DETROIT,
MICHIGAN**

Sheet Name
**SAMPLE LOCATION
DIAGRAM**

No.	Revision Date

Date	2-2-18
CADD	JAB
Designer	AHR
Scale	1" = 400'
Project	077832.00.001.006
Figure No.	2

DRAWING NOTE: SCALE DEPICTED IS MEANT FOR 11" X 17" AND WILL SCALE INCORRECTLY IF PRINTED ON ANY OTHER SIZE MEDIA
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Project

FORMER ROGELL GOLF COURSE

Project Location

**18600 AND 18601 BERG ROAD
DETROIT,
MICHIGAN**

Sheet Name

PROPERTY AND ASSESSMENT SUMMARY AND DIAGRAM - SOIL

No.	Revision Date

Date **2-2-18**

CADD **JAB**

Designer **AHR**

Scale **1" = 400'**

Project **077832.00.001.006**

Figure No. **3**

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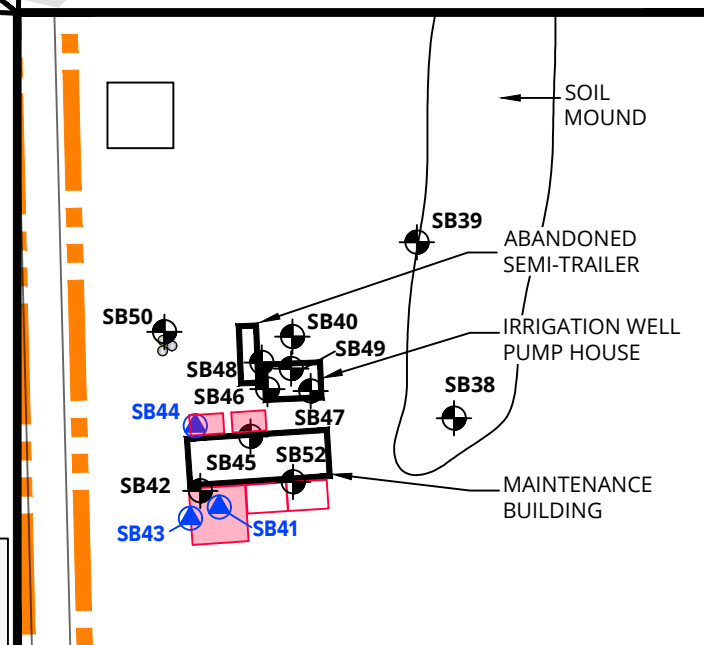
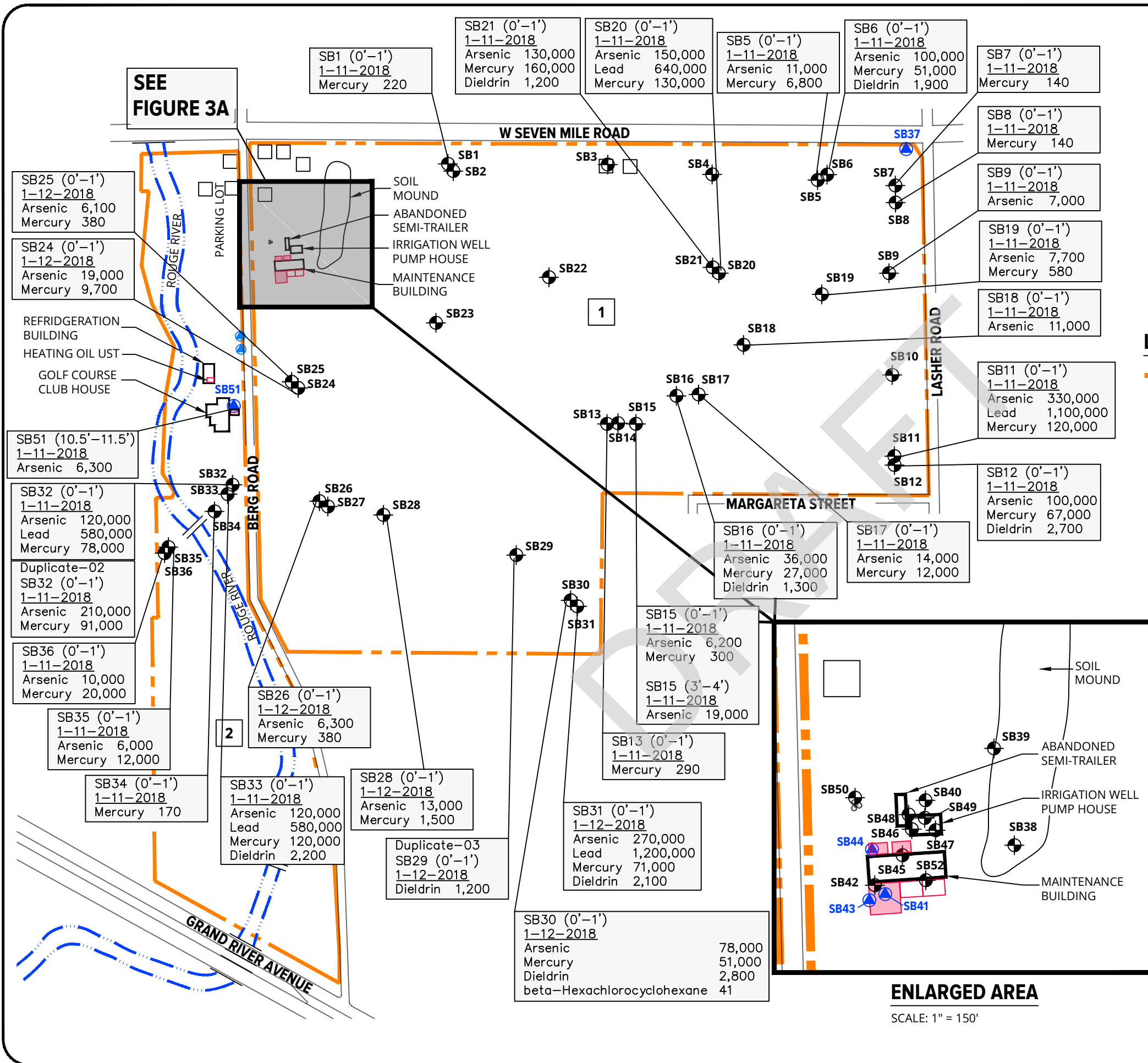
GRAPHIC SCALE: 1" = 400'

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- EXISTING MONITORING WELLS
- POLE-MOUNTED TRANSFORMERS
- FORMER LOCATION OF BUILDINGS
- FORMER LOCATION OF GASOLINE USTs
- FORMER LOCATION OF DIESEL ASTs
- FORMER LOCATION OF HEATING OIL UST
- 18600 BERG ROAD
- 18601 BERG ROAD
- APPROXIMATE SOIL BORING LOCATION
- APPROXIMATE SOIL BORING LOCATION WITH TEMPORARY MONITORING WELL

NOTES:

- DRAWING INFORMATION TAKEN FROM GOOGLE EARTH PRO 2016 AERIAL PHOTO AND SITE OBSERVATIONS.
- CONCENTRATIONS ARE SHOWN IN MICROGRAMS PER KILOGRAM ($\mu\text{g}/\text{kg}$) AND EXCEED ONE OR MORE PART 201 GENERIC RESIDENTIAL CLEANUP CRITERIA.



ENLARGED AREA

SCALE: 1" = 150'

FILE LOCATION: \\sme-inc\p2\WIP\077832.00\CAD\077832.00.001.006\rev01\077832.00.001.006-AN.dwg
 PLOT DATE: Feb 02, 2018 - 4:39pm - jblake

SEE FIGURE 3A

SB1 (0'-1')
1-11-2018
Mercury 220

SB21 (0'-1')
1-11-2018
Arsenic 130,000
Mercury 160,000
Dieldrin 1,200

SB20 (0'-1')
1-11-2018
Arsenic 150,000
Lead 640,000
Mercury 130,000

SB5 (0'-1')
1-11-2018
Arsenic 11,000
Mercury 6,800

SB6 (0'-1')
1-11-2018
Arsenic 100,000
Mercury 51,000
Dieldrin 1,900

SB7 (0'-1')
1-11-2018
Mercury 140

SB8 (0'-1')
1-11-2018
Mercury 140

SB9 (0'-1')
1-11-2018
Arsenic 7,000

SB19 (0'-1')
1-11-2018
Arsenic 7,700
Mercury 580

SB18 (0'-1')
1-11-2018
Arsenic 11,000

SB11 (0'-1')
1-11-2018
Arsenic 330,000
Lead 1,100,000
Mercury 120,000

SB12 (0'-1')
1-11-2018
Arsenic 100,000
Mercury 67,000
Dieldrin 2,700

SB16 (0'-1')
1-11-2018
Arsenic 36,000
Mercury 27,000
Dieldrin 1,300

SB17 (0'-1')
1-11-2018
Arsenic 14,000
Mercury 12,000

SB15 (0'-1')
1-11-2018
Arsenic 6,200
Mercury 300

SB15 (3'-4')
1-11-2018
Arsenic 19,000

SB13 (0'-1')
1-11-2018
Mercury 290

SB31 (0'-1')
1-12-2018
Arsenic 270,000
Lead 1,200,000
Mercury 71,000
Dieldrin 2,100

SB30 (0'-1')
1-12-2018
Arsenic 78,000
Mercury 51,000
Dieldrin 2,800
beta-Hexachlorocyclohexane 41

SB28 (0'-1')
1-12-2018
Arsenic 13,000
Mercury 1,500

Duplicate-03
SB29 (0'-1')
1-12-2018
Dieldrin 1,200

SB26 (0'-1')
1-12-2018
Arsenic 6,300
Mercury 380

SB33 (0'-1')
1-11-2018
Arsenic 120,000
Lead 580,000
Mercury 120,000
Dieldrin 2,200

SB35 (0'-1')
1-11-2018
Arsenic 6,000
Mercury 12,000

SB34 (0'-1')
1-11-2018
Mercury 170

SB51 (10.5'-11.5')
1-11-2018
Arsenic 6,300

SB32 (0'-1')
1-11-2018
Arsenic 120,000
Lead 580,000
Mercury 78,000

Duplicate-02
SB32 (0'-1')
1-11-2018
Arsenic 210,000
Mercury 91,000

SB36 (0'-1')
1-11-2018
Arsenic 10,000
Mercury 20,000

SB25 (0'-1')
1-12-2018
Arsenic 6,100
Mercury 380

SB24 (0'-1')
1-12-2018
Arsenic 19,000
Mercury 9,700

SOIL MOUND
ABANDONED SEMI-TRAILER
IRRIGATION WELL PUMP HOUSE
MAINTENANCE BUILDING

PARKING LOT

REFRIDGERATION BUILDING
HEATING OIL UST
GOLF COURSE CLUB HOUSE

BERG ROAD

ROUGE RIVER

LASHER ROAD

MARGARETA STREET

W SEVEN MILE ROAD

GRAND RIVER AVENUE

1

2

SOIL MOUND

ABANDONED SEMI-TRAILER

IRRIGATION WELL PUMP HOUSE

MAINTENANCE BUILDING



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Project

FORMER ROGELL GOLF COURSE

Project Location

**18600 AND 18601 BERG ROAD
DETROIT,
MICHIGAN**

Sheet Name

PROPERTY AND ASSESSMENT SUMMARY AND DIAGRAM - SOIL

No.	Revision Date

Date **2-2-18**

CADD **JAB**

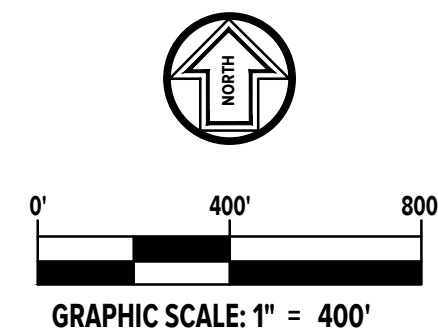
Designer **AHR**

Scale **1" = 400'**

Project **077832.00.001.006**

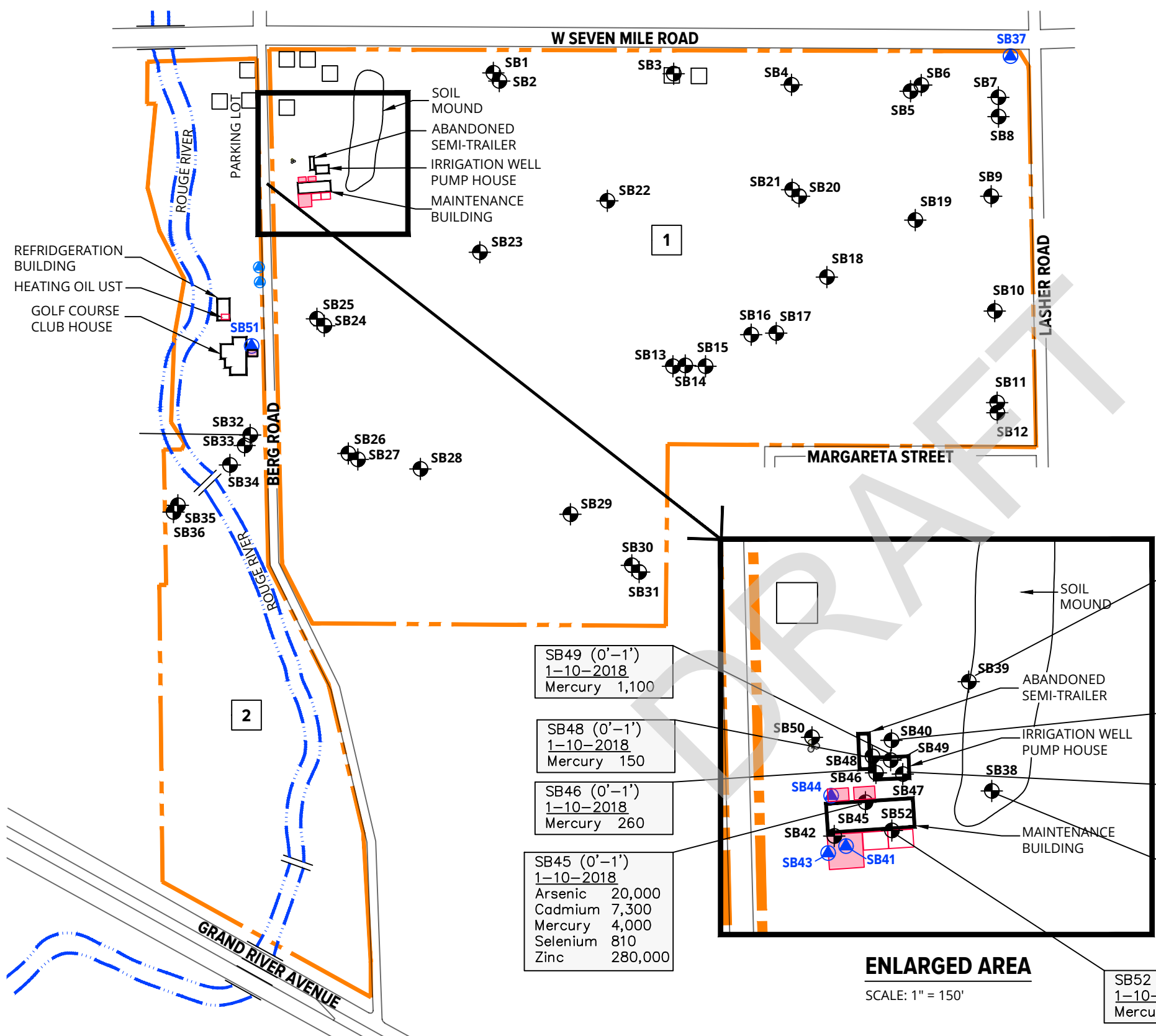
Figure No. **3A**

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LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- EXISTING MONITORING WELLS
- POLE-MOUNTED TRANSFORMERS
- FORMER LOCATION OF BUILDINGS
- FORMER LOCATION OF GASOLINE USTs
- GASOLINE AND DIESEL ASTs
- FORMER LOCATION OF DIESEL ASTs
- FORMER LOCATION OF HEATING OIL UST
- 18600 BERG ROAD
- 18601 BERG ROAD
- APPROXIMATE SOIL BORING LOCATION
- APPROXIMATE SOIL BORING LOCATION WITH TEMPORARY MONITORING WELL



SB49 (0'-1')
1-10-2018
Mercury 1,100

SB48 (0'-1')
1-10-2018
Mercury 150

SB46 (0'-1')
1-10-2018
Mercury 260

SB45 (0'-1')
1-10-2018
Arsenic 20,000
Cadmium 7,300
Mercury 4,000
Selenium 810
Zinc 280,000

SB39 (1'-3')
1-10-2018
Arsenic 8,600

Duplicate-01
SB39 (1'-3')
1-10-2018
Arsenic 11,000

SB40 (1'-2')
1-10-2018
Mercury 330

SB47 (0'-1')
1-10-2018
Arsenic 8,600
Mercury 880

SB38 (1'-2')
1-10-2018
Mercury 200

SB52 (1'-2')
1-10-2018
Mercury 620

ENLARGED AREA
SCALE: 1" = 150'

- NOTES:
- DRAWING INFORMATION TAKEN FROM GOOGLE EARTH PRO 2016 AERIAL PHOTO AND SITE OBSERVATIONS.
 - CONCENTRATIONS ARE SHOWN IN MICROGRAMS PER KILOGRAM ($\mu\text{g}/\text{kg}$) AND EXCEED ONE OR MORE PART 201 GENERIC RESIDENTIAL CLEANUP CRITERIA.

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Project

FORMER ROGELL GOLF COURSE

Project Location

**18600 AND 18601 BERG ROAD
DETROIT,
MICHIGAN**

Sheet Name

PROPERTY AND ASSESSMENT SUMMARY AND DIAGRAM - GROUNDWATER

No.	Revision Date

Date **2-2-18**

CADD **JAB**

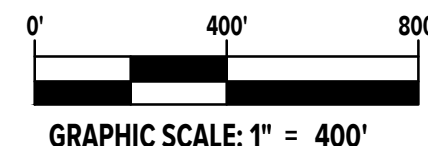
Designer **AHR**

Scale **1" = 400'**

Project **077832.00.001.006**

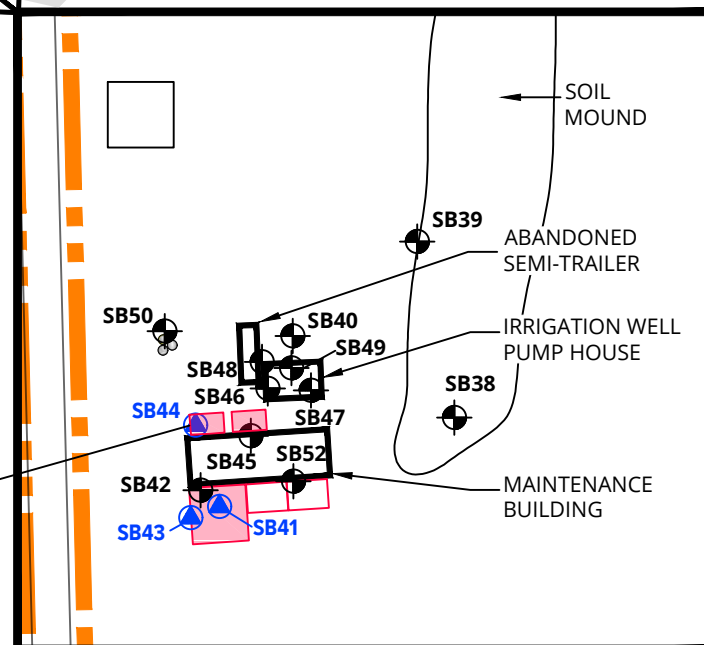
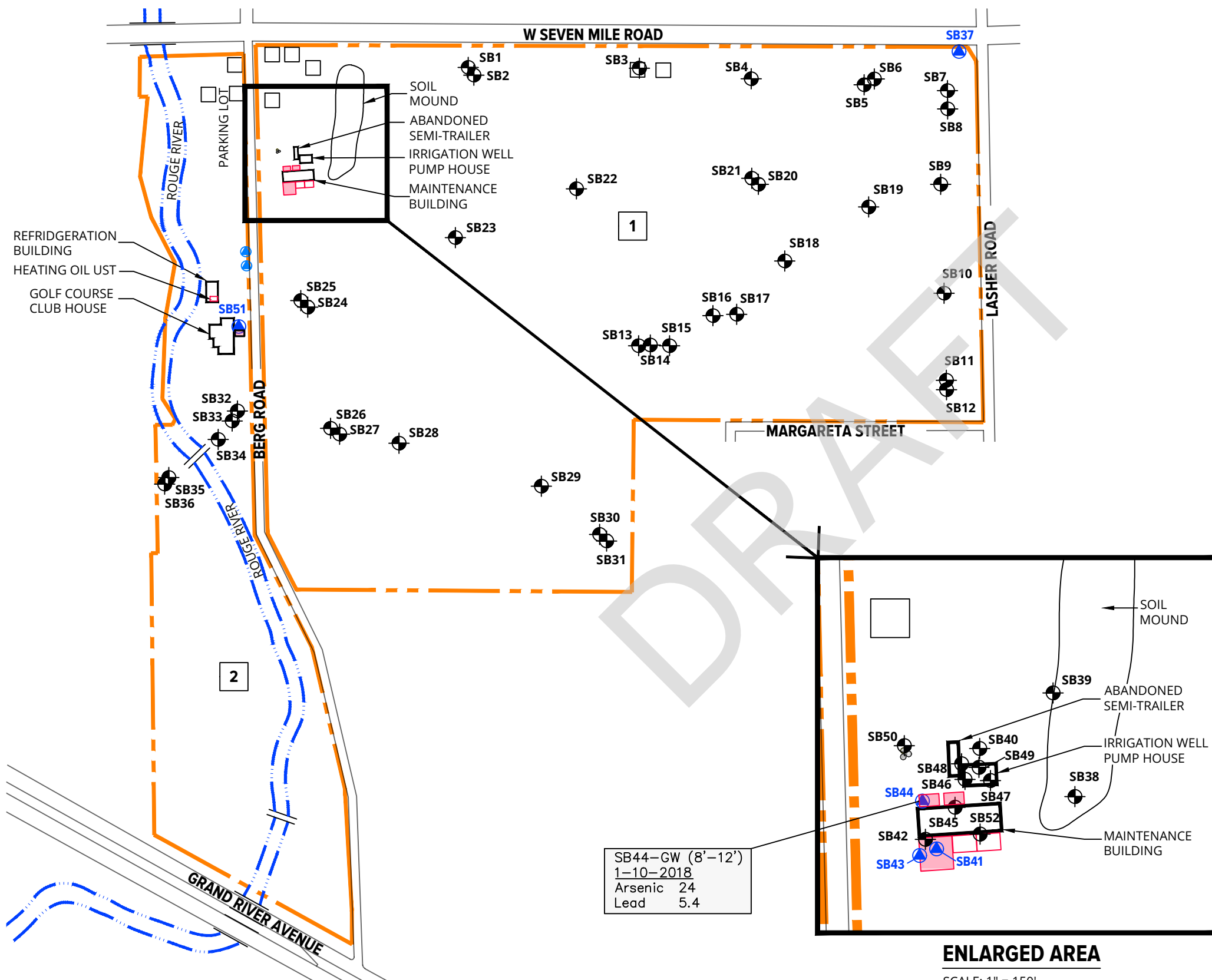
Figure No. **4**

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LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- EXISTING MONITORING WELLS
- POLE-MOUNTED TRANSFORMERS
- FORMER LOCATION OF BUILDINGS
- FORMER LOCATION OF GASOLINE USTs
- GASOLINE AND DIESEL ASTs
- FORMER LOCATION OF DIESEL ASTs
- FORMER LOCATION OF HEATING OIL UST
- 18600 BERG ROAD
- 18601 BERG ROAD
- APPROXIMATE SOIL BORING LOCATION
- APPROXIMATE SOIL BORING LOCATION WITH TEMPORARY MONITORING WELL



ENLARGED AREA
SCALE: 1" = 150'

SB44-GW (8'-12')
1-10-2018
Arsenic 24
Lead 5.4

- NOTES:
- DRAWING INFORMATION TAKEN FROM GOOGLE EARTH PRO 2016 AERIAL PHOTO AND SITE OBSERVATIONS.
 - CONCENTRATIONS ARE SHOWN IN MICROGRAMS PER LITER (µg/L) AND EXCEED ONE OR MORE PART 201 GENERIC RESIDENTIAL CLEANUP CRITERIA.

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TABLE 1
SUMMARY OF ANALYSIS RESULTS - SOIL
FORMER ROGELL GOLF COURSE
18600 and 18601 BERG ROAD
DETROIT, MICHIGAN
SME PROJECT NO. 077832.00.001.006
PAGE 1 OF 8

CONSTITUENT	Chemical Abstract Service Number	Statewide Default Background Levels	Part 201 Generic Residential Cleanup Criteria							MDEQ Recommended Interim Action Screening Levels for Soil	CHEMICAL ANALYSIS RESULTS								
			Drinking Water Protection Criteria	Groundwater Surface Water Interface Protection Criteria	Soil Volatilization to Indoor Air Inhalation Criteria	Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Direct Contact Criteria		Residential RIASL	Sample Identification							
												Depth (feet)							
												Date Collected							
Area of Evaluation								SB1	SB2	SB7	SB8	SB13	SB14	SB26	SB27				
								0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1				
								1/11/18	1/11/18	1/11/18	1/11/18	1/11/18	1/11/18	1/12/18	1/12/18				
Former golf course - tee boxes																			
18600 Berg Road																			
VOCs																			
All Analyzed VOCs	CS	NA	CS	CS	CS	CS	CS	CS	CS	CS	NE	NE	NE	NE	NE	NE	NE	NE	
PAHs																			
Fluoranthene	206-44-0	NA	730,000	5,500	1,000,000,000	740,000,000	740,000,000	740,000,000	46,000,000	NA	NE	NE	NE	NE	NE	NE	NE	NE	
All Other Analyzed PAHs		NA	CS	CS	CS	CS	CS	CS	CS	NA	NE	NE	NE	NE	NE	NE	NE	NE	
PCBs																			
Total of All Analyzed PCB Aroclors		NA	CS	CS	CS	CS	CS	CS	CS	NA	NE	NE	NE	NE	NE	NE	NE	NE	
Metals																			
Arsenic	7440-38-2	5,800	5,800	5,800	NLV	NLV	NLV	NLV	7,600	NA	5,400	2,700	3,200	2,600	5,700	5,700	6,300	3,100	
Barium	7440-39-3	75,000	1,300,000	440,000*	NLV	NLV	NLV	NLV	37,000,000	NA	NE	NE	NE	NE	NE	NE	NE	NE	
Cadmium	7440-43-9	1,200	6,000	3,000*	NLV	NLV	NLV	NLV	550,000	NA	NE	NE	NE	NE	NE	NE	NE	NE	
Chromium, Total**	16065-83-1	18,000	1,000,000,000	1,000,000,000	NLV	NLV	NLV	NLV	790,000,000	NA	NE	NE	NE	NE	NE	NE	NE	NE	
Chromium VI	18540-29-9	NA	30,000	3,300	NLV	NLV	NLV	NLV	2,500,000	NA	NE	NE	NE	NE	NE	NE	NE	NE	
Copper	7440-50-8	32,000	5,800,000	75,000*	NLV	NLV	NLV	NLV	20,000,000	NA	NE	NE	NE	NE	NE	NE	NE	NE	
Lead	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NA	40,000	17,000	36,000	28,000	26,000	48,000	30,000	19,000	
Lead, Total (Calculated)	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NA	NE	NE	NE	NE	NE	NE	NE	NE	
Lead, Coarse Fraction	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NAA	NE	NE	NE	NE	NE	NE	NE	NE	
Lead, Fine Fraction	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NA	NE	NE	NE	NE	NE	NE	NE	NE	
Mercury	7439-97-6	130	1,700	130	48,000	52,000	52,000	52,000	160,000	0.027	220	110	140	140	290	120	380	77	
Selenium	7782-49-2	410	4,000	410	NLV	NLV	NLV	NLV	2,600,000	NA	NE	NE	NE	NE	NE	NE	NE	NE	
Silver	7440-22-4	1,000	4,500	1,000	NLV	NLV	NLV	NLV	2,500,000	NA	NE	NE	NE	NE	NE	NE	NE	NE	
Zinc	7440-66-6	47,000	2,400,000	170,000*	NLV	NLV	NLV	NLV	170,000,000	NA	NE	NE	NE	NE	NE	NE	NE	NE	
Herbicides																			
Dalapon	75-99-0	NA	4,000	NA	NLV	NLV	NLV	NLV	19,000,000	NA	<100	<100	<100	<100	<100	<100	<100	<100	
Dicamba	1918-00-9	NA	4,400	NA	NA	NLV	NLV	NLV	3,400,000	NA	<100	<100	<100	<100	<100	<100	<100	<100	
2,4-Dichlorophenoxyacetic acid	94-75-7	NA	1,400	4,400	NLV	NLV	NLV	NLV	2,500,000	NA	<200	<200	<200	<200	<200	<200	<200	<200	
Dinoseb	88-85-7	NA	300	200	NLV	NLV	NLV	NLV	66,000	NA	<100	<100	<100	<100	<100	<100	<100	<100	
Silvex (2,4,5-TP)	93-72-1	NA	3,600	2,200	NLV	NLV	NLV	NLV	1,700,000	NA	<200	<200	<200	<200	<200	<200	<200	<200	
All Other Analyzed Herbicides	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	
Pesticides																			
Aldrin	309-00-2	NA	NLL	NLL	1,300,000	58,000	58,000	58,000	1,000	NA	<20	<20	<20	<20	<20	<20	<20	<20	
Chlordane	57-74-9	NA	NLL	NLL	11,000,000	1,200,000	1,200,000	1,200,000	31,000	13,000	<25	<25	<25	<25	<25	<25	<25	<25	
4-4-DDD	72-54-8	NA	NLL	NLL	NLV	NLV	NLV	NLV	95,000	NA	<20	<20	<20	<20	<20	<20	<20	<20	
4-4-DDE	72-55-9	NA	NLL	NLL	NLV	NLV	NLV	NLV	45,000	NA	64	<20	<20	<20	45	54	<20	<20	
4-4-DDT	50-29-3	NA	NLL	NLL	NLV	NLV	NLV	NLV	57,000	NA	63	<20	<20	<20	31	45	<20	<20	
Dieldrin	60-57-1	NA	NLL	NLL	140,000	19,000	19,000	19,000	1,100	NA	<20	<20	<20	<20	<20	<20	<20	<20	
Total Endosulfan	115-29-7	NA	NLL	NLL	ID	ID	ID	ID	1,400,000	NA	<40	<40	<40	<40	<40	<40	<40	<40	
Endrin	72-20-8	NA	NLL	NLL	NLV	NLV	NLV	NLV	65,000	NA	<20	<20	<20	<20	<20	<20	<20	<20	
Endrin Aldehyde	7421-93-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	<20	<20	<20	<20	<20	<20	<20	<20	
Heptachlor	76-44-8	NA	NLL	NLL	350,000	62,000	62,000	62,000	5,600	NA	<20	<20	<20	<20	<20	<20	<20	<20	
Heptachlor epoxide	1024-57-3	NA	NLL	NLL	NLV	NLV	NLV	NLV	3,100	NA	<20	<20	<20	<20	<20	<20	<20	<20	
alpha-Hexachlorocyclohexane	319-84-6	NA	18	ID	30,000	12,000	22,000	25,000	2,600	NA	<20	<20	<20	<20	<20	<20	<20	<20	
beta-Hexachlorocyclohexane	319-85-7	NA	37	ID	NLV	NLV	NLV	NLV	5,400	NA	<20	<20	<20	<20	<20	<20	<20	<20	
Lindane	58-89-9	NA	20	20	ID	ID	ID	ID	8,300	NA	<20	<20	<20	<20	<20	<20	<20	<20	
Methoxychlor	72-43-5	NA	16,000	NA	ID	ID	ID	ID	1,900,000	NA	<50	<50	<50	<50	<50	<50	<50	<50	
Toxaphene	8001-35-2	NA	24,000	8,200	NLV	NLV	NLV	NLV	20,000	NA	<170	<170	<170	<170	<170	<170	<170	<170	
All Other Analyzed Pesticides	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	

Notes:

- Concentrations reported in micrograms per kilogram (µg/kg).
- Analytical results were compared to December 30, 2013 Promulgated Cleanup Criteria, R 299.46, Table 2. Soil: Residential Part 201 Generic Cleanup Criteria and Screening Levels and the MDEQ Volatilization to Indoor Air Recommendations for Interim Action Screening Levels and Time-Sensitive Interim Action Screening Levels, Guidance Document for the Vapor Intrusion Pathway, August 2017.
- Results exceeding one or more criteria are shaded, as are the criteria exceeded.
- VOCs - Volatile Organic Compounds. PAHs - Polynuclear Aromatic Hydrocarbons. PCBs - Polychlorinated Biphenyl. Refer to the analytical report for the full list of VOC, PAH, and PCB analytes.
- CS - Criterion is specific to individual constituent.
- <RL - Analytical result was below laboratory reporting limit(s).
- ID - Insufficient data to develop criteria.
- NA - Not applicable.
- NE - Not evaluated.
- NLV - Not likely to volatilize.
- NLL - Not likely to leach.
- * = GSI Protection was calculated for the indicated metals using the MDEQ spreadsheet for calculating GSI. A default water hardness value of 150 mg/kg as CaCO₃ was used to calculate GSI. Results are presented for surface water receiving bodies protected as a drinking water source.
- Italicized - the respective criterion was below the Statewide Default Background Level (SDBL) and therefore the value defaulted to the SDBL value.
- ** - Total chromium results compared to the more restrictive hexavalent chromium criteria because chromium was not speciated.
- Concentrations were also compared to, and found to be below, the soil saturation concentration screening levels and particulate soil inhalation criteria.



TABLE 1
SUMMARY OF ANALYSIS RESULTS - SOIL
FORMER ROGELL GOLF COURSE
18600 and 18601 BERG ROAD
DETROIT, MICHIGAN
SME PROJECT NO. 077832.00.001.006
PAGE 2 OF 8

CONSTITUENT	Chemical Abstract Service Number	Statewide Default Background Levels	Part 201 Generic Residential Cleanup Criteria							MDEQ Recommended Interim Action Screening Levels for Soil	CHEMICAL ANALYSIS RESULTS														
			Drinking Water Protection Criteria	Groundwater Surface Water Interface Protection Criteria	Soil Volatilization to Indoor Air Inhalation Criteria	Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Direct Contact Criteria		Residential RIASL	Sample Identification													
												Depth (feet)							Date Collected						
												Area of Evaluation							Parcel Address						
SB3	SB4	SB9	SB10	SB15	SB15	SB18	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	3 - 4	0 - 1												
1/11/18	1/11/18	1/11/18	1/11/18	1/11/18	1/11/18	1/11/18	1/11/18	1/11/18	1/11/18	1/11/18	1/11/18	1/11/18	1/11/18												
Former golf course - fairways																									
18600 Berg Road																									
VOCs																									
All Analyzed VOCs	CS	NA	CS	CS	CS	CS	CS	CS	CS	CS	NE	NE	NE	NE	NE	NE	NE								
PAHs																									
Fluoranthene	206-44-0	NA	730,000	5,500	1,000,000,000	740,000,000	740,000,000	740,000,000	46,000,000	NA	NE	NE	NE	NE	NE	NE	NE								
All Other Analyzed PAHs		NA	CS	CS	CS	CS	CS	CS	CS	NA	NE	NE	NE	NE	NE	NE	NE								
PCBs																									
Total of All Analyzed PCB Aroclors		NA	CS	CS	CS	CS	CS	CS	CS	NA	NE	NE	NE	NE	NE	NE	NE								
Metals																									
Arsenic	7440-38-2	5,800	5,800	5,800	NLV	NLV	NLV	NLV	7,600	NA	2,200	2,600	7,000	3,600	6,200	19,000	11,000								
Barium	7440-39-3	75,000	1,300,000	440,000*	NLV	NLV	NLV	NLV	37,000,000	NA	NE	NE	NE	NE	NE	NE	NE								
Cadmium	7440-43-9	1,200	6,000	3,000*	NLV	NLV	NLV	NLV	550,000	NA	NE	NE	NE	NE	NE	NE	NE								
Chromium, Total**	16065-83-1	18,000	1,000,000,000	1,000,000,000	NLV	NLV	NLV	NLV	790,000,000	NA	NE	NE	NE	NE	NE	NE	NE								
Chromium VI	18540-29-9	NA	30,000	3,300	NLV	NLV	NLV	NLV	2,500,000	NA	NE	NE	NE	NE	NE	NE	NE								
Copper	7440-50-8	32,000	5,800,000	75,000*	NLV	NLV	NLV	NLV	20,000,000	NA	NE	NE	NE	NE	NE	NE	NE								
Lead	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NA	28,000	17,000	21,000	16,000	14,000	5,000	13,000								
Lead, Total (Calculated)	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NA	NE	NE	NE	NE	NE	NE	NE								
Lead, Coarse Fraction	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NAA	NE	NE	NE	NE	NE	NE	NE								
Lead, Fine Fraction	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NA	NE	NE	NE	NE	NE	NE	NE								
Mercury	7439-97-6	130	1,700	130	48,000	52,000	52,000	52,000	160,000	0.027	53	<50	85	130	300	<50	100								
Selenium	7782-49-2	410	4,000	410	NLV	NLV	NLV	NLV	2,600,000	NA	NE	NE	NE	NE	NE	NE	NE								
Silver	7440-22-4	1,000	4,500	1,000	NLV	NLV	NLV	NLV	2,500,000	NA	NE	NE	NE	NE	NE	NE	NE								
Zinc	7440-66-6	47,000	2,400,000	170,000*	NLV	NLV	NLV	NLV	170,000,000	NA	NE	NE	NE	NE	NE	NE	NE								
Herbicides																									
Dalapon	75-99-0	NA	4,000	NA	NLV	NLV	NLV	NLV	19,000,000	NA	<100	<100	<100	<100	<100	<100	<100								
Dicamba	1918-00-9	NA	4,400	NA	NA	NLV	NLV	NLV	3,400,000	NA	<100	<100	<100	<100	<100	<100	<100								
2,4-Dichlorophenoxyacetic acid	94-75-7	NA	1,400	4,400	NA	NLV	NLV	NLV	2,500,000	NA	<200	<200	<200	<200	<200	<200	<200								
Dinoseb	88-85-7	NA	300	200	NLV	NLV	NLV	NLV	66,000	NA	<100	<100	<100	<100	<100	<100	<100								
Silvex (2,4,5-TP)	93-72-1	NA	3,600	2,200	NLV	NLV	NLV	NLV	1,700,000	NA	<200	<200	<200	<200	<200	<200	<200								
All Other Analyzed Herbicides	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS	<RL	<RL	<RL	<RL	<RL	<RL	<RL								
Pesticides																									
Aldrin	309-00-2	NA	NLL	NLL	1,300,000	58,000	58,000	58,000	1,000	NA	<20	<20	<20	<20	<20	<20	<20								
Chlordane	57-74-9	NA	NLL	NLL	11,000,000	1,200,000	1,200,000	1,200,000	31,000	13,000	<25	<25	<25	<25	<25	<25	<25								
4'-DDD	72-54-8	NA	NLL	NLL	NLV	NLV	NLV	NLV	95,000	NA	<20	<20	<20	<20	<20	<20	<20								
4'-DDE	72-55-9	NA	NLL	NLL	NLV	NLV	NLV	NLV	45,000	NA	<20	<20	<20	<20	61	<20	<20								
4'-DDT	50-29-3	NA	NLL	NLL	NLV	NLV	NLV	NLV	57,000	NA	<20	<20	<20	<20	<20	<20	<20								
Dieldrin	60-57-1	NA	NLL	NLL	140,000	19,000	19,000	19,000	1,100	NA	<20	<20	<20	<20	<20	<20	<20								
Total Endosulfan	115-29-7	NA	NLL	NLL	ID	ID	ID	ID	1,400,000	NA	<40	<40	<40	<40	<40	<40	<40								
Endrin	72-20-8	NA	NLL	NLL	NLV	NLV	NLV	NLV	65,000	NA	<20	<20	<20	<20	<20	<20	<20								
Endrin Aldehyde	7421-93-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	<20	<20	<20	<20	<20	<20	<20								
Heptachlor	76-44-8	NA	NLL	NLL	350,000	62,000	62,000	62,000	5,600	NA	<20	<20	<20	<20	<20	<20	<20								
Heptachlor epoxide	1024-57-3	NA	NLL	NLL	NLV	NLV	NLV	NLV	3,100	NA	<20	<20	<20	<20	<20	<20	<20								
alpha-Hexachlorocyclohexane	319-84-6	NA	18	ID	30,000	12,000	22,000	25,000	2,600	NA	<20	<20	<20	<20	<20	<20	<20								
beta-Hexachlorocyclohexane	319-85-7	NA	37	ID	NLV	NLV	NLV	NLV	5,400	NA	<20	<20	<20	<20	<20	<20	<20								
Lindane	58-89-9	NA	20	20	ID	ID	ID	ID	8,300	NA	<20	<20	<20	<20	<20	<20	<20								
Methoxychlor	72-43-5	NA	16,000	NA	ID	ID	ID	ID	1,900,000	NA	<50	<50	<50	<50	<50	<50	<50								
Toxaphene	8001-35-2	NA	24,000	8,200	NLV	NLV	NLV	NLV	20,000	NA	<170	<170	<170	<170	<170	<170	<170								
All Other Analyzed Pesticides	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS	<RL	<RL	<RL	<RL	<RL	<RL	<RL								

Notes:

- Concentrations reported in micrograms per kilogram (µg/kg).
- Analytical results were compared to December 30, 2013 Promulgated Cleanup Criteria, R 299.46, Table 2. Soil: Residential Part 201 Generic Cleanup Criteria and Screening Levels and the MDEQ Volatilization to Indoor Air Recommendations for Interim Action Screening Levels and Time-Sensitive Interim Action Screening levels, Guidance Document for the Vapor Intrusion Pathway, August 2017.
- Results exceeding one or more criteria are shaded, as are the criteria exceeded.
- VOCs - Volatile Organic Compounds. PAHs - Polynuclear Aromatic Hydrocarbons. PCBs - Polychlorinated Biphenyl. Refer to the analytical report for the full list of VOC, PAH, and PCB analytes.
- CS - Criterion is specific to individual constituent.
- <RL - Analytical result was below laboratory reporting limit(s).
- ID - Insufficient data to develop criteria.
- NA - Not applicable.
- NE - Not evaluated.
- NLV - Not likely to volatilize.
- NLL - Not likely to leach.
- * = GSI Protection was calculated for the indicated metals using the MDEQ spreadsheet for calculating GSI. A default water hardness value of 150 mg/kg as CaCO3 was used to calculate GSI. Results are presented for surface water receiving bodies protected as a drinking water source.
- Italicized - the respective criterion was below the Statewide Default Background Level (SDBL) and therefore the value defaulted to the SDBL value.
- ** - Total chromium results compared to the more restrictive hexavalent chromium criteria because chromium was not speciated.
- Concentrations were also compared to, and found to be below, the soil saturation concentration screening levels and particulate soil inhalation criteria.



TABLE 1
SUMMARY OF ANALYSIS RESULTS - SOIL
FORMER ROGELL GOLF COURSE
18600 and 18601 BERG ROAD
DETROIT, MICHIGAN
SME PROJECT NO. 077832.00.001.006
PAGE 3 OF 8

CONSTITUENT	Chemical Abstract Service Number	Statewide Default Background Levels	Part 201 Generic Residential Cleanup Criteria								MDEQ Recommended Interim Action Screening Levels for Soil	CHEMICAL ANALYSIS RESULTS													
			Drinking Water Protection Criteria	Groundwater Surface Water Interface Protection Criteria	Soil Volatilization to Indoor Air Inhalation Criteria	Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Direct Contact Criteria	Residential RIASL		Sample Identification													
												Depth (feet)							Date Collected						
												Area of Evaluation							Parcel Address						
SB19	SB22	SB23	SB28	SB29	Duplicate-03	SB34	SB19	SB22	SB23	SB28	SB29	Duplicate-03	SB34												
0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1											
1/11/18	1/11/18	1/11/18	1/12/18	1/12/18	1/12/18	1/12/18	1/12/18	1/12/18	1/12/18	1/12/18	1/12/18	1/12/18	1/12/18	1/12/18											
Former golf course - fairways																									
18600 Berg Road															18601 Berg Road										
VOCs																									
All Analyzed VOCs	CS	NA	CS	CS	CS	CS	CS	CS	CS	CS	NE	NE	NE	NE	NE	NE	NE								
PAHs																									
Fluoranthene	206-44-0	NA	730,000	5,500	1,000,000,000	740,000,000	740,000,000	740,000,000	46,000,000	NA	NE	NE	NE	NE	NE	NE	NE								
All Other Analyzed PAHs		NA	CS	CS	CS	CS	CS	CS	CS	NA	NE	NE	NE	NE	NE	NE	NE								
PCBs																									
Total of All Analyzed PCB Aroclors		NA	CS	CS	CS	CS	CS	CS	CS	NA	NE	NE	NE	NE	NE	NE	NE								
Metals																									
Arsenic	7440-38-2	5,800	5,800	5,800	NLV	NLV	NLV	NLV	7,600	NA	7,790	2,800	2,100	13,000	3,400	3,300	3,900								
Barium	7440-39-3	75,000	1,300,000	440,000*	NLV	NLV	NLV	NLV	37,000,000	NA	NE	NE	NE	NE	NE	NE	NE								
Cadmium	7440-43-9	1,200	6,000	3,000*	NLV	NLV	NLV	NLV	550,000	NA	NE	NE	NE	NE	NE	NE	NE								
Chromium, Total**	16065-83-1	18,000	1,000,000,000	1,000,000,000	NLV	NLV	NLV	NLV	790,000,000	NA	NE	NE	NE	NE	NE	NE	NE								
Chromium VI	18540-29-9	NA	30,000	3,300	NLV	NLV	NLV	NLV	2,500,000	NA	NE	NE	NE	NE	NE	NE	NE								
Copper	7440-50-8	32,000	5,800,000	75,000*	NLV	NLV	NLV	NLV	20,000,000	NA	NE	NE	NE	NE	NE	NE	NE								
Lead	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NA	30,000	9,100	13,000	41,000	8,400	11,000	18,000								
Lead, Total (Calculated)	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NA	NE	NE	NE	NE	NE	NE	NE								
Lead, Coarse Fraction	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NAA	NE	NE	NE	NE	NE	NE	NE								
Lead, Fine Fraction	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NA	NE	NE	NE	NE	NE	NE	NE								
Mercury	7439-97-6	130	1,700	130	48,000	52,000	52,000	52,000	160,000	0.027	580	<50	<50	1,500	<50	63	170								
Selenium	7782-49-2	410	4,000	410	NLV	NLV	NLV	NLV	2,600,000	NA	NE	NE	NE	NE	NE	NE	NE								
Silver	7440-22-4	1,000	4,500	1,000	NLV	NLV	NLV	NLV	2,500,000	NA	NE	NE	NE	NE	NE	NE	NE								
Zinc	7440-66-6	47,000	2,400,000	170,000*	NLV	NLV	NLV	NLV	170,000,000	NA	NE	NE	NE	NE	NE	NE	NE								
Herbicides																									
Dalapon	75-99-0	NA	4,000	NA	NLV	NLV	NLV	NLV	19,000,000	NA	<100	<100	<100	<100	<100	<100	<100								
Dicamba	1918-00-9	NA	4,400	NA	NA	NLV	NLV	NLV	3,400,000	NA	<100	<100	<100	<100	<100	<100	<100								
2,4-Dichlorophenoxyacetic acid	94-75-7	NA	1,400	4,400	NLV	NLV	NLV	NLV	2,500,000	NA	<200	<200	<200	<200	<200	<200	<200								
Dinoseb	88-85-7	NA	300	200	NLV	NLV	NLV	NLV	66,000	NA	<100	<100	<100	<100	<100	<100	<100								
Silvex (2,4,5-TP)	93-72-1	NA	3,600	2,200	NLV	NLV	NLV	NLV	1,700,000	NA	<200	<200	<200	<200	<200	<200	<200								
All Other Analyzed Herbicides	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS	<RL	<RL	<RL	<RL	<RL	<RL	<RL								
Pesticides																									
Aldrin	309-00-2	NA	NLL	NLL	1,300,000	58,000	58,000	58,000	1,000	NA	<20	<20	<20	<20	<20	<20	<20								
Chlordane	57-74-9	NA	NLL	NLL	11,000,000	1,200,000	1,200,000	1,200,000	31,000	13,000	<25	<25	<25	<25	<25	<25	<25								
4-4-DDD	72-54-8	NA	NLL	NLL	NLV	NLV	NLV	NLV	95,000	NA	<20	<20	<20	<20	<20	<20	<20								
4-4-DDE	72-55-9	NA	NLL	NLL	NLV	NLV	NLV	NLV	45,000	NA	23	<20	<20	<20	<20	<20	<20								
4-4-DDT	50-29-3	NA	NLL	NLL	NLV	NLV	NLV	NLV	57,000	NA	<20	<20	<20	<20	<20	<20	<20								
Dieldrin	60-57-1	NA	NLL	NLL	140,000	19,000	19,000	19,000	1,100	NA	<20	<20	<20	<20	<20	<20	<20								
Total Endosulfan	115-29-7	NA	NLL	NLL	ID	ID	ID	ID	1,400,000	NA	<40	<40	<40	<40	<40	<40	<40								
Endrin	72-20-8	NA	NLL	NLL	NLV	NLV	NLV	NLV	65,000	NA	<20	<20	<20	<20	<20	<20	<20								
Endrin Aldehyde	7421-93-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	<20	<20	<20	<20	<20	<20	<20								
Heptachlor	76-44-8	NA	NLL	NLL	350,000	62,000	62,000	62,000	5,600	NA	<20	<20	<20	<20	<20	<20	<20								
Heptachlor epoxide	1024-57-3	NA	NLL	NLL	NLV	NLV	NLV	NLV	3,100	NA	<20	<20	<20	<20	<20	46	<20								
alpha-Hexachlorocyclohexane	319-84-6	NA	ID	ID	30,000	12,000	22,000	25,000	2,600	NA	<20	<20	<20	<20	<20	<20	<20								
beta-Hexachlorocyclohexane	319-85-7	NA	37	ID	NLV	NLV	NLV	NLV	5,400	NA	<20	<20	<20	<20	<20	<20	<20								
Lindane	58-89-9	NA	20	20	ID	ID	ID	ID	8,300	NA	<20	<20	<20	<20	<20	<20	<20								
Methoxychlor	72-43-5	NA	16,000	NA	ID	ID	ID	ID	1,900,000	NA	<50	<50	<50	<50	<50	<50	<50								
Toxaphene	8001-35-2	NA	24,000	8,200	NLV	NLV	NLV	NLV	20,000	NA	<170	<170	<170	<170	<170	<170	<170								
All Other Analyzed Pesticides	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS	<RL	<RL	<RL	<RL	<RL	<RL	<RL								

Notes:

- Concentrations reported in micrograms per kilogram (µg/kg).
- Analytical results were compared to December 30, 2013 Promulgated Cleanup Criteria, R 299 46, Table 2. Soil: Residential Part 201 Generic Cleanup Criteria and Screening Levels and the MDEQ Volatilization to Indoor Air Recommendations for Interim Action Screening Levels and Time-Sensitive Interim Action Screening levels, Guidance Document for the Vapor Intrusion Pathway, August 2017.
- Results exceeding one or more criteria are shaded, as are the criteria exceeded.
- VOCs - Volatile Organic Compounds. PAHs - Polynuclear Aromatic Hydrocarbons. PCBs - Polychlorinated Biphenyl. Refer to the analytical report for the full list of VOC, PAH, and PCB analytes.
- CS - Criterion is specific to individual constituent.
- <RL - Analytical result was below laboratory reporting limit(s).
- ID - Insufficient data to develop criteria.
- NA - Not applicable.
- NE - Not evaluated.
- NLV - Not likely to volatilize.
- NLL - Not likely to leach.
- * = GSI Protection was calculated for the indicated metals using the MDEQ spreadsheet for calculating GSI. A default water hardness value of 150 mg/kg as CaCO3 was used to calculate GSI. Results are presented for surface water receiving bodies protected as a drinking water source.
- Italicized* - the respective criterion was below the Statewide Default Background Level (SDBL) and therefore the value defaulted to the SDBL value.
- ** - Total chromium results compared to the more restrictive hexavalent chromium criteria because chromium was not speciated.
- Concentrations were also compared to, and found to be below, the soil saturation concentration screening levels and particulate soil inhalation criteria.



TABLE 1
SUMMARY OF ANALYSIS RESULTS - SOIL
FORMER ROGELL GOLF COURSE
18600 and 18601 BERG ROAD
DETROIT, MICHIGAN
SME PROJECT NO. 077832.00.001.006
PAGE 4 OF 8

CONSTITUENT	Chemical Abstract Service Number	Statewide Default Background Levels	Part 201 Generic Residential Cleanup Criteria							MDEQ Recommended Interim Action Screening Levels for Soil	CHEMICAL ANALYSIS RESULTS														
			Drinking Water Protection Criteria	Groundwater Surface Water Interface Protection Criteria	Soil Volatilization to Indoor Air Inhalation Criteria	Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Direct Contact Criteria		Residential RIASL	Sample Identification													
												Depth (feet)							Date Collected						
												Area of Evaluation							Parcel Address						
SB5	SB6	SB11	SB12	SB16	SB17	SB20	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1												
1/11/18	1/11/18	1/11/18	1/11/18	1/11/18	1/11/18	1/11/18	1/11/18	1/11/18	1/11/18	1/11/18	1/11/18	1/11/18	1/11/18	1/11/18											
Former golf course -greens																									
18600 Berg Road																									
VOCs																									
All Analyzed VOCs	CS	NA	CS	CS	CS	CS	CS	CS	CS	CS	NE	NE	NE	NE	NE	NE	NE								
PAHs																									
Fluoranthene	206-44-0	NA	730,000	5,500	1,000,000,000	740,000,000	740,000,000	740,000,000	46,000,000	NA	NE	NE	NE	NE	NE	NE	NE								
All Other Analyzed PAHs		NA	CS	CS	CS	CS	CS	CS	CS	NA	NE	NE	NE	NE	NE	NE	NE								
PCBs																									
Total of All Analyzed PCB Aroclors		NA	CS	CS	CS	CS	CS	CS	CS	NA	NE	NE	NE	NE	NE	NE	NE								
Metals																									
Arsenic	7440-38-2	5,800	5,800	5,800	NLV	NLV	NLV	NLV	7,600	NA	11,000	100,000	330,000	100,000	36,000	14,000	150,000								
Barium	7440-39-3	75,000	1,300,000	440,000*	NLV	NLV	NLV	NLV	37,000,000	NA	NE	NE	NE	NE	NE	NE	NE								
Cadmium	7440-43-9	1,200	6,000	3,000*	NLV	NLV	NLV	NLV	550,000	NA	NE	NE	NE	NE	NE	NE	NE								
Chromium, Total**	16065-83-1	18,000	1,000,000,000	1,000,000,000	NLV	NLV	NLV	NLV	790,000,000	NA	NE	NE	NE	NE	NE	NE	NE								
Chromium VI	18540-29-9	NA	30,000	3,300	NLV	NLV	NLV	NLV	2,500,000	NA	NE	NE	NE	NE	NE	NE	NE								
Copper	7440-50-8	32,000	5,800,000	75,000*	NLV	NLV	NLV	NLV	20,000,000	NA	NE	NE	NE	NE	NE	NE	NE								
Lead	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NA	28,000	360,000	1,100,000	380,000	83,000	49,000	640,000								
Lead, Total (Calculated)	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NA	NE	327,000	1,020,000	NE	NE	NE	655,000								
Lead, Coarse Fraction	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NAA	NE	338,000	1,080,000	NE	NE	NE	690,000								
Lead, Fine Fraction	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NA	NE	253,000	752,000	NE	NE	NE	257,000								
Mercury	7439-97-6	130	1,700	130	48,000	52,000	52,000	52,000	160,000	0.027	6,800	51,000	120,000	67,000	27,000	12,000	130,000								
Selenium	7782-49-2	410	4,000	410	NLV	NLV	NLV	NLV	2,600,000	NA	NE	NE	NE	NE	NE	NE	NE								
Silver	7440-22-4	1,000	4,500	1,000	NLV	NLV	NLV	NLV	2,500,000	NA	NE	NE	NE	NE	NE	NE	NE								
Zinc	7440-66-6	47,000	2,400,000	170,000*	NLV	NLV	NLV	NLV	170,000,000	NA	NE	NE	NE	NE	NE	NE	NE								
Herbicides																									
Dalapon	75-99-0	NA	4,000	NA	NLV	NLV	NLV	NLV	19,000,000	NA	<100	<100	<100	<100	<100	<100	<100								
Dicamba	1918-00-9	NA	4,400	NA	NA	NLV	NLV	NLV	3,400,000	NA	<100	<100	<100	<100	<100	<100	<100								
2,4-Dichlorophenoxyacetic acid	94-75-7	NA	1,400	4,400	NA	NLV	NLV	NLV	2,500,000	NA	<200	<200	<200	<200	<200	<200	<200								
Dinoseb	88-85-7	NA	300	200	NLV	NLV	NLV	NLV	66,000	NA	<100	<100	<100	<100	<100	<100	<100								
Silvex (2,4,5-TP)	93-72-1	NA	3,600	2,200	NLV	NLV	NLV	NLV	1,700,000	NA	<200	<200	<200	<200	<200	<200	<200								
All Other Analyzed Herbicides	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS	<RL	<RL	<RL	<RL	<RL	<RL	<RL								
Pesticides																									
Aldrin	309-00-2	NA	NLL	NLL	1,300,000	58,000	58,000	58,000	1,000	NA	<20	370	<20	32	<20	<20	<20								
Chlordane	57-74-9	NA	NLL	NLL	11,000,000	1,200,000	1,200,000	1,200,000	31,000	13,000	2,200	10,000	2,700	5,600	3,100	740	12,000								
4'-DDD	72-54-8	NA	NLL	NLL	NLV	NLV	NLV	NLV	95,000	NA	<20	<20	<20	<20	<20	<20	<20								
4'-DDE	72-55-9	NA	NLL	NLL	NLV	NLV	NLV	NLV	45,000	NA	58	<83	<20	<20	72	48	160								
4'-DDT	50-29-3	NA	NLL	NLL	NLV	NLV	NLV	NLV	57,000	NA	<39	<83	<20	<20	25	<20	<20								
Dieldrin	60-57-1	NA	NLL	NLL	140,000	19,000	19,000	19,000	1,100	NA	570	1,900	1,100	2,700	1,300	160	1,100								
Total Endosulfan	115-29-7	NA	NLL	NLL	ID	ID	ID	ID	1,400,000	NA	<40	<40	<40	<40	<40	<40	<40								
Endrin	72-20-8	NA	NLL	NLL	NLV	NLV	NLV	NLV	65,000	NA	<20	<20	<20	<20	<20	<20	<20								
Endrin Aldehyde	7421-93-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	<20	<20	<20	<20	<20	<20	<20								
Heptachlor	76-44-8	NA	NLL	NLL	350,000	62,000	62,000	62,000	5,600	NA	<20	<20	<20	<20	<20	<20	<20								
Heptachlor epoxide	1024-57-3	NA	NLL	NLL	NLV	NLV	NLV	NLV	3,100	NA	42	<83	88	90	<20	<20	160								
alpha-Hexachlorocyclohexane	319-84-6	NA	18	ID	30,000	12,000	22,000	25,000	2,600	NA	<20	<20	<20	<20	<20	<20	<20								
beta-Hexachlorocyclohexane	319-85-7	NA	37	ID	NLV	NLV	NLV	NLV	5,400	NA	<20	<20	<20	<20	<20	<20	<20								
Lindane	58-89-9	NA	20	20	ID	ID	ID	ID	8,300	NA	<20	<20	<20	<20	<20	<20	<20								
Methoxychlor	72-43-5	NA	16,000	NA	ID	ID	ID	ID	1,900,000	NA	<50	<50	<50	<50	<50	<50	<50								
Toxaphene	8001-35-2	NA	24,000	8,200	NLV	NLV	NLV	NLV	20,000	NA	<170	<170	<170	<170	<170	<170	<170								
All Other Analyzed Pesticides	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS	<RL	<RL	<RL	<RL	<RL	<RL	<RL								

Notes:

- Concentrations reported in micrograms per kilogram (µg/kg).
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FORMER ROGELL GOLF COURSE
18600 and 18601 BERG ROAD
DETROIT, MICHIGAN
SME PROJECT NO. 077832.00.001.006
PAGE 5 OF 8

CONSTITUENT	Chemical Abstract Service Number	Statewide Default Background Levels	Part 201 Generic Residential Cleanup Criteria							MDEQ Recommended Interim Action Screening Levels for Soil	CHEMICAL ANALYSIS RESULTS														
			Drinking Water Protection Criteria	Groundwater Surface Water Interface Protection Criteria	Soil Volatilization to Indoor Air Inhalation Criteria	Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Direct Contact Criteria		Residential RIASL	Sample Identification													
												Depth (feet)							Date Collected						
												Area of Evaluation							Parcel Address						
SB21	SB24	SB25	SB30	SB31	SB32	Duplicate-02																			
0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1																			
1/11/18	1/12/18	1/12/18	1/12/18	1/12/18	1/12/18	1/11/18																			
Former golf course -greens																									
18600 Berg Road																									
18601 Berg Road																									
VOCs																									
All Analyzed VOCs	CS	NA	CS	CS	CS	CS	CS	CS	CS	CS	NE	NE	NE	NE	NE	NE	NE								
PAHs																									
Fluoranthene	206-44-0	NA	730,000	5,500	1,000,000,000	740,000,000	740,000,000	740,000,000	46,000,000	NA	NE	NE	NE	NE	NE	NE	NE								
All Other Analyzed PAHs		NA	CS	CS	CS	CS	CS	CS	CS	NA	NE	NE	NE	NE	NE	NE	NE								
PCBs																									
Total of All Analyzed PCB Aroclors		NA	CS	CS	CS	CS	CS	CS	CS	NA	NE	NE	NE	NE	NE	NE	NE								
Metals																									
Arsenic	7440-38-2	5,800	5,800	5,800	NLV	NLV	NLV	NLV	7,600	NA	130,000	19,000	6,100	78,000	270,000	120,000	210,000								
Barium	7440-39-3	75,000	1,300,000	440,000*	NLV	NLV	NLV	NLV	37,000,000	NA	NE	NE	NE	NE	NE	NE	NE								
Cadmium	7440-43-9	1,200	6,000	3,000*	NLV	NLV	NLV	NLV	550,000	NA	NE	NE	NE	NE	NE	NE	NE								
Chromium, Total**	16065-83-1	18,000	1,000,000,000	1,000,000,000	NLV	NLV	NLV	NLV	790,000,000	NA	NE	NE	NE	NE	NE	NE	NE								
Chromium VI	18540-29-9	NA	30,000	3,300	NLV	NLV	NLV	NLV	2,500,000	NA	NE	NE	NE	NE	NE	NE	NE								
Copper	7440-50-8	32,000	5,800,000	75,000*	NLV	NLV	NLV	NLV	20,000,000	NA	NE	NE	NE	NE	NE	NE	NE								
Lead	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NA	310,000	56,000	34,000	310,000	1,200,000	580,000	400,000								
Lead, Total (Calculated)	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NA	NE	NE	NE	NE	379,000	NE	NE								
Lead, Coarse Fraction	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NAA	NE	NE	NE	NE	386,000	NE	NE								
Lead, Fine Fraction	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NA	NE	NE	NE	NE	347,000	NE	NE								
Mercury	7439-97-6	130	1,700	130	48,000	52,000	52,000	52,000	160,000	0.027	160,000	9,700	380	51,000	78,000	78,000	91,000								
Selenium	7782-49-2	410	4,000	410	NLV	NLV	NLV	NLV	2,600,000	NA	NE	NE	NE	NE	NE	NE	NE								
Silver	7440-22-4	1,000	4,500	1,000	NLV	NLV	NLV	NLV	2,500,000	NA	NE	NE	NE	NE	NE	NE	NE								
Zinc	7440-66-6	47,000	2,400,000	170,000*	NLV	NLV	NLV	NLV	170,000,000	NA	NE	NE	NE	NE	NE	NE	NE								
Herbicides																									
Dalapon	75-99-0	NA	4,000	NA	NLV	NLV	NLV	NLV	19,000,000	NA	<100	<100	<100	<100	<100	<100	<100								
Dicamba	1918-00-9	NA	4,400	NA	NA	NLV	NLV	NLV	3,400,000	NA	<100	<100	<100	<100	<100	<100	<100								
2,4-Dichlorophenoxyacetic acid	94-75-7	NA	1,400	4,400	NA	NLV	NLV	NLV	2,500,000	NA	<200	<200	<200	<200	<200	<200	<200								
Dinoseb	88-85-7	NA	300	200	NLV	NLV	NLV	NLV	66,000	NA	<100	<100	<100	<100	<100	<100	<100								
Silvex (2,4,5-TP)	93-72-1	NA	3,600	2,200	NLV	NLV	NLV	NLV	1,700,000	NA	<200	<200	<200	<200	<200	<200	<200								
All Other Analyzed Herbicides	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS	<RL	<RL	<RL	<RL	<RL	<RL	<RL								
Pesticides																									
Aldrin	309-00-2	NA	NLL	NLL	1,300,000	58,000	58,000	58,000	1,000	NA	<20	<20	<20	<20	<20	<20	<20								
Chlordane	57-74-9	NA	NLL	NLL	11,000,000	1,200,000	1,200,000	1,200,000	31,000	13,000	6,200	<25	<25	<25	12,000	5,200	2,100	3,100							
4'-DDD	72-54-8	NA	NLL	NLL	NLV	NLV	NLV	NLV	95,000	NA	<20	<20	<20	<20	<20	<20	<20								
4'-DDE	72-55-9	NA	NLL	NLL	NLV	NLV	NLV	NLV	45,000	NA	85	<20	<20	<20	130	79	30	30							
4'-DDT	50-29-3	NA	NLL	NLL	NLV	NLV	NLV	NLV	57,000	NA	<46	<20	<20	<20	63	<20	<20								
Dieldrin	60-57-1	NA	NLL	NLL	140,000	19,000	19,000	19,000	1,100	NA	1,200	<20	<20	<20	2,800	2,100	760	1,200							
Total Endosulfan	115-29-7	NA	NLL	NLL	ID	ID	ID	ID	1,400,000	NA	<40	<40	<40	<40	<40	<40	<40								
Endrin	72-20-8	NA	NLL	NLL	NLV	NLV	NLV	NLV	65,000	NA	<20	<20	<20	<20	<20	<20	<20								
Endrin Aldehyde	7421-93-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	<20	<20	<20	<20	26	<20	<20								
Heptachlor	76-44-8	NA	NLL	NLL	350,000	62,000	62,000	62,000	5,600	NA	<20	<20	<20	<20	<20	<20	<20								
Heptachlor epoxide	1024-57-3	NA	NLL	NLL	NLV	NLV	NLV	NLV	3,100	NA	130	<20	<20	<20	78	39	39	46							
alpha-Hexachlorocyclohexane	319-84-6	NA	18	ID	30,000	12,000	22,000	25,000	2,600	NA	<20	<20	<20	<20	<20	<20	<20								
beta-Hexachlorocyclohexane	319-85-7	NA	37	ID	NLV	NLV	NLV	NLV	5,400	NA	<20	<20	<20	<20	41	<20	<20								
Lindane	58-89-9	NA	20	20	ID	ID	ID	ID	8,300	NA	<20	<20	<20	<20	<20	<20	<20								
Methoxychlor	72-43-5	NA	16,000	NA	ID	ID	ID	ID	1,900,000	NA	<50	<50	<50	<50	<50	<50	<50								
Toxaphene	8001-35-2	NA	24,000	8,200	NLV	NLV	NLV	NLV	20,000	NA	<170	<170	<170	<170	<170	<170	<170								
All Other Analyzed Pesticides	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS	<RL	<RL	<RL	<RL	<RL	<RL	<RL								

Notes:

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DETROIT, MICHIGAN
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												Depth (feet)						
												Date Collected						
												Area of Evaluation						
Parcel Address							SB33	SB35	SB36	SB38	SB39	Duplicate-01	SB40					
							0 - 1	0 - 1	0 - 1	1 - 2	1 - 3	SB39 (1 - 3)	1 - 2					
							1/11/18	1/11/18	1/11/18	1/10/18	1/10/18	1/10/18	1/10/18					
							Former golf course - greens				Soil Mound							
							18601 Berg Road				18600 Berg Road							
VOCs																		
All Analyzed VOCs	CS	NA	CS	CS	CS	CS	CS	CS	CS	CS	NE	NE	NE	<RL	<RL	<RL	<RL	
PAHs																		
Fluoranthene	206-44-0	NA	730,000	5,500	1,000,000,000	740,000,000	740,000,000	740,000,000	46,000,000	NA	NE	NE	NE	<330	330	<330	<330	
All Other Analyzed PAHs		NA	CS	CS	CS	CS	CS	CS	CS	NA	NE	NE	NE	<RL	<RL	<RL	<RL	
PCBs																		
Total of All Analyzed PCB Aroclors		NA	CS	CS	CS	CS	CS	CS	CS	NA	NE	NE	NE	<RL	<RL	<RL	<RL	
Metals																		
Arsenic	7440-38-2	5,800	5,800	5,800	NLV	NLV	NLV	NLV	7,600	NA	120,000	6,000	10,000	5,100	8,600	11,000	4,800	
Barium	7440-39-3	75,000	1,300,000	440,000*	NLV	NLV	NLV	NLV	37,000,000	NA	NE	NE	NE	23,000	58,000	49,000	31,000	
Cadmium	7440-43-9	1,200	6,000	3,000*	NLV	NLV	NLV	NLV	550,000	NA	NE	NE	NE	240	420	350	330	
Chromium, Total**	16065-83-1	18,000	1,000,000,000	1,000,000,000	NLV	NLV	NLV	NLV	790,000,000	NA	NE	NE	NE	9,000	24,000	18,000	11,000	
Chromium VI	18540-29-9	NA	30,000	3,300	NLV	NLV	NLV	NLV	2,500,000	NA	NE	NE	NE	<2,300	NE	NE	NE	
Copper	7440-50-8	32,000	5,800,000	75,000*	NLV	NLV	NLV	NLV	20,000,000	NA	NE	NE	NE	10,000	15,000	12,000	8,100	
Lead	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NA	580,000	38,000	52,000	27,000	40,000	48,000	19,000	
Lead, Total (Calculated)	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NA	631,000	NE	NE	NE	NE	NE	NE	
Lead, Coarse Fraction	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NAA	641,000	NE	NE	NE	NE	NE	NE	
Lead, Fine Fraction	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NA	499,000	NE	NE	NE	NE	NE	NE	
Mercury	7439-97-6	130	1,700	130	48,000	52,000	52,000	52,000	160,000	0.027	120,000	12,000	20,000	200	120	110	330	
Selenium	7782-49-2	410	4,000	410	NLV	NLV	NLV	NLV	2,600,000	NA	NE	NE	NE	220	380	390	330	
Silver	7440-22-4	1,000	4,500	1,000	NLV	NLV	NLV	NLV	2,500,000	NA	NE	NE	NE	<100	<100	<100	<100	
Zinc	7440-66-6	47,000	2,400,000	170,000*	NLV	NLV	NLV	NLV	170,000,000	NA	NE	NE	NE	43,000	60,000	64,000	36,000	
Herbicides																		
Dalapon	75-99-0	NA	4,000	NA	NLV	NLV	NLV	NLV	19,000,000	NA	<100	<100	<100	<100	<100	<100	<100	
Dicamba	1918-00-9	NA	4,400	NA	NA	NLV	NLV	NLV	3,400,000	NA	<100	<100	<100	<100	<100	<100	<100	
2,4-Dichlorophenoxyacetic acid	94-75-7	NA	1,400	4,400	NA	NLV	NLV	NLV	2,500,000	NA	<200	<200	<200	<200	<200	<200	<200	
Dinoseb	88-85-7	NA	300	200	NLV	NLV	NLV	NLV	66,000	NA	<100	<100	<100	<100	<100	<100	<100	
Silvex (2,4,5-TP)	93-72-1	NA	3,600	2,200	NLV	NLV	NLV	NLV	1,700,000	NA	<200	<200	<200	<200	<200	<200	<200	
All Other Analyzed Herbicides	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS	<RL	<RL	<RL	<RL	<RL	<RL	<RL	
Pesticides																		
Aldrin	309-00-2	NA	NLL	NLL	1,300,000	58,000	58,000	58,000	1,000	NA	27	<20	<20	<20	<20	<20	<20	
Chlordane	57-74-9	NA	NLL	NLL	11,000,000	1,200,000	1,200,000	1,200,000	31,000	13,000	7,400	700	1,500	650	800	<25	610	
4'-DDD	72-54-8	NA	NLL	NLL	NLV	NLV	NLV	NLV	95,000	NA	<20	<20	<20	<20	<20	<20	<20	
4'-DDE	72-55-9	NA	NLL	NLL	NLV	NLV	NLV	NLV	45,000	NA	90	<20	36	140	1,000	<20	53	
4'-DDT	50-29-3	NA	NLL	NLL	NLV	NLV	NLV	NLV	57,000	NA	58	<20	92	880	<20	120		
Dieldrin	60-57-1	NA	NLL	NLL	140,000	19,000	19,000	19,000	1,100	NA	2,200	500	980	<20	<20	<20	110	
Total Endosulfan	115-29-7	NA	NLL	NLL	ID	ID	ID	ID	1,400,000	NA	<40	<40	<40	<40	<40	<40	<40	
Endrin	72-20-8	NA	NLL	NLL	NLV	NLV	NLV	NLV	65,000	NA	<20	<20	<20	<20	<20	<20	<20	
Endrin Aldehyde	7421-93-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	<20	<20	<20	<20	<20	<20	<20	
Heptachlor	76-44-8	NA	NLL	NLL	350,000	62,000	62,000	62,000	5,600	NA	<20	<20	<20	<20	<20	<20	<20	
Heptachlor epoxide	1024-57-3	NA	NLL	NLL	NLV	NLV	NLV	NLV	3,100	NA	95	<20	<20	<20	<20	<20	<20	
alpha-Hexachlorocyclohexane	319-84-6	NA	18	ID	30,000	12,000	22,000	25,000	2,600	NA	<20	<20	<20	<20	<20	<20	<20	
beta-Hexachlorocyclohexane	319-85-7	NA	37	ID	NLV	NLV	NLV	NLV	5,400	NA	<20	<20	28	<20	<20	<20	<20	
Lindane	58-89-9	NA	20	20	ID	ID	ID	ID	8,300	NA	<20	<20	<20	<20	<20	<20	<20	
Methoxychlor	72-43-5	NA	16,000	NA	ID	ID	ID	ID	1,900,000	NA	<50	<50	<50	<50	<50	<50	<50	
Toxaphene	8001-35-2	NA	24,000	8,200	NLV	NLV	NLV	NLV	20,000	NA	<170	<170	<170	<170	<170	<170	<170	
All Other Analyzed Pesticides	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS	<RL	<RL	<RL	<RL	<RL	<RL	<RL	

Notes:

- Concentrations reported in micrograms per kilogram (µg/kg).
- Analytical results were compared to December 30, 2013 Promulgated Cleanup Criteria, R 299.46, Table 2. Soil: Residential Part 201 Generic Cleanup Criteria and Screening Levels and the MDEQ Volatilization to Indoor Air Recommendations for Interim Action Screening Levels and Time-Sensitive Interim Action Screening levels, Guidance Document for the Vapor Intrusion Pathway, August 2017.
- Results exceeding one or more criteria are shaded, as are the criteria exceeded.
- VOCs - Volatile Organic Compounds. PAHs - Polynuclear Aromatic Hydrocarbons. PCBs - Polychlorinated Biphenyl. Refer to the analytical report for the full list of VOC, PAH, and PCB analytes.
- CS - Criterion is specific to individual constituent.
- <RL - Analytical result was below laboratory reporting limit(s).
- ID - Insufficient data to develop criteria.
- NA - Not applicable.
- NE - Not evaluated.
- NLV - Not likely to volatilize.
- NLL - Not likely to leach.
- * = GSI Protection was calculated for the indicated metals using the MDEQ spreadsheet for calculating GSI. A default water hardness value of 150 mg/kg as CaCO₃ was used to calculate GSI. Results are presented for surface water receiving bodies protected as a drinking water source.
- Italicized* - the respective criterion was below the Statewide Default Background Level (SDBL) and therefore the value defaulted to the SDBL value.
- ** - Total chromium results compared to the more restrictive hexavalent chromium criteria because chromium was not speciated.
- Concentrations were also compared to, and found to be below, the soil saturation concentration screening levels and particulate soil inhalation criteria.



TABLE 1
SUMMARY OF ANALYSIS RESULTS - SOIL
FORMER ROGELL GOLF COURSE
18600 and 18601 BERG ROAD
DETROIT, MICHIGAN
SME PROJECT NO. 077832.00.001.006
PAGE 7 OF 8

CONSTITUENT	Chemical Abstract Service Number	Statewide Default Background Levels	Part 201 Generic Residential Cleanup Criteria							MDEQ Recommended Interim Action Screening Levels for Soil	CHEMICAL ANALYSIS RESULTS																	
			Drinking Water Protection Criteria	Groundwater Surface Water Interface Protection Criteria	Soil Volatilization to Indoor Air Inhalation Criteria	Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Direct Contact Criteria		Residential RIASL	Sample Identification																
												Depth (feet)				Date Collected				Area of Evaluation								
												SB41	SB42	SB43	SB44	SB45	SB46	SB47	SB48	SB41	SB42	SB43	SB44	SB45	SB46	SB47	SB48	
													10 - 11		10 - 11		10 - 11		10 - 11		0 - 1		0 - 1		0 - 1		0 - 1	
													1/10/18		1/10/18		1/10/18		1/10/18		1/10/18		1/10/18		1/10/18			
													Former LUST area and gasoline and diesel ASTs area				Drum storage, former diesel AST area, and former excavation area				Drums of unknown content							
													18600 Berg Road															
VOCs																												
All Analyzed VOCs	CS	NA	CS	CS	CS	CS	CS	CS	CS	CS	CS	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL									
PAHs																												
Fluoranthene	206-44-0	NA	730,000	5,500	1,000,000,000	740,000,000	740,000,000	740,000,000	46,000,000	NA	<330	<330	<330	<330	<330	<330	<330	<330	<330									
All Other Analyzed PAHs		NA	CS	CS	CS	CS	CS	CS	CS	NA	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL									
PCBs																												
Total of All Analyzed PCB Aroclors		NA	CS	CS	CS	CS	CS	CS	CS	NA	NE	NE	NE	<RL	NE	NE	NE	NE	NE									
Metals																												
Arsenic	7440-38-2	5,800	5,800	5,800	NLV	NLV	NLV	NLV	7,600	NA	2,600	1,900	2,700	3,800	20,000	5,100	8,600	2,800										
Barium	7440-39-3	75,000	1,300,000	440,000*	NLV	NLV	NLV	NLV	37,000,000	NA	4,800	6,100	6,000	15,000	150,000	21,000	36,000	16,000										
Cadmium	7440-43-9	1,200	6,000	3,000*	NLV	NLV	NLV	NLV	550,000	NA	<50	62	62	110	7,300	350	440	150										
Chromium, Total**	16065-83-1	18,000	1,000,000,000	1,000,000,000	NLV	NLV	NLV	NLV	790,000,000	NA	2,900	3,900	3,000	7,700	110,000	10,000	11,000	4,800										
Chromium VI	18540-29-9	NA	30,000	3,300	NLV	NLV	NLV	NLV	2,500,000	NA	NE	NE	NE	NE	<2,300	NE	NE	NE										
Copper	7440-50-8	32,000	5,800,000	75,000*	NLV	NLV	NLV	NLV	20,000,000	NA	3,000	4,400	2,900	6,700	44,000	6,600	13,000	3,000										
Lead	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NA	1,600	2,200	1,500	4,800	260,000	18,000	44,000	5,400										
Lead, Total (Calculated)	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NA	NE	NE	NE	NE	125,000	NE	NE	NE										
Lead, Coarse Fraction	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NAA	NE	NE	NE	NE	126,000	NE	NE	NE										
Lead, Fine Fraction	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NA	NE	NE	NE	NE	116,000	NE	NE	NE										
Mercury	7439-97-6	130	1,700	130	48,000	52,000	52,000	52,000	160,000	0.027	<50	<50	<50	<50	4,000	260	880	150										
Selenium	7782-49-2	410	4,000	410	NLV	NLV	NLV	NLV	2,600,000	NA	<200	<200	<200	<200	810	<200	300	<200										
Silver	7440-22-4	1,000	4,500	1,000	NLV	NLV	NLV	NLV	2,500,000	NA	<100	<100	<100	<100	660	<100	<100	<100										
Zinc	7440-66-6	47,000	2,400,000	170,000*	NLV	NLV	NLV	NLV	170,000,000	NA	8,300	12,000	8,400	22,000	280,000	67,000	52,000	83,000										
Herbicides																												
Dalapon	75-99-0	NA	4,000	NA	NLV	NLV	NLV	NLV	19,000,000	NA	NE	NE	NE	<100	<100	<100	<100	<100										
Dicamba	1918-00-9	NA	4,400	NA	NA	NLV	NLV	NLV	3,400,000	NA	NE	NE	NE	<100	<100	<100	<100	<100										
2,4-Dichlorophenoxyacetic acid	94-75-7	NA	1,400	4,400	NLV	NLV	NLV	NLV	2,500,000	NA	NE	NE	NE	<200	<200	<200	<200	<200										
Dinoseb	88-85-7	NA	300	200	NLV	NLV	NLV	NLV	66,000	NA	NE	NE	NE	<100	<100	<100	<100	<100										
Silvex (2,4,5-TP)	93-72-1	NA	3,600	2,200	NLV	NLV	NLV	NLV	1,700,000	NA	NE	NE	NE	<200	<200	<200	<200	<200										
All Other Analyzed Herbicides	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS	NE	NE	NE	<RL	<RL	<RL	<RL	<RL										
Pesticides																												
Aldrin	309-00-2	NA	NLL	NLL	1,300,000	58,000	58,000	58,000	1,000	NA	NE	NE	NE	<20	<20	<20	<20	<20										
Chlordane	57-74-9	NA	NLL	NLL	11,000,000	1,200,000	1,200,000	1,200,000	31,000	13,000	NE	NE	NE	<25	<30	<25	<25	<25										
4,4'-DDD	72-54-8	NA	NLL	NLL	NLV	NLV	NLV	NLV	95,000	NA	NE	NE	NE	<20	160	<20	<20	<20										
4,4'-DDE	72-55-9	NA	NLL	NLL	NLV	NLV	NLV	NLV	45,000	NA	NE	NE	NE	<20	710	44	<20	<20										
4,4'-DDT	50-29-3	NA	NLL	NLL	NLV	NLV	NLV	NLV	57,000	NA	NE	NE	NE	<20	130	50	<20	<20										
Dieldrin	60-57-1	NA	NLL	NLL	140,000	19,000	19,000	19,000	1,100	NA	NE	NE	NE	<20	<20	<20	150	<20										
Total Endosulfan	115-29-7	NA	NLL	NLL	ID	ID	ID	ID	1,400,000	NA	NE	NE	NE	<40	<40	<40	<40	<40										
Endrin	72-20-8	NA	NLL	NLL	NLV	NLV	NLV	NLV	65,000	NA	NE	NE	NE	<20	<20	<20	<20	<20										
Endrin Aldehyde	7421-93-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE	<20	<20	<20	<20	<20										
Heptachlor	76-44-8	NA	NLL	NLL	350,000	62,000	62,000	62,000	5,600	NA	NE	NE	NE	<20	<20	<20	<20	<20										
Heptachlor epoxide	1024-57-3	NA	NLL	NLL	NLV	NLV	NLV	NLV	3,100	NA	NE	NE	NE	<20	<20	<20	<20	<20										
alpha-Hexachlorocyclohexane	319-84-6	NA	18	ID	30,000	12,000	22,000	25,000	2,600	NA	NE	NE	NE	<20	<20	<20	<20	<20										
beta-Hexachlorocyclohexane	319-85-7	NA	37	ID	NLV	NLV	NLV	NLV	5,400	NA	NE	NE	NE	<20	<20	<20	<20	<20										
Lindane	58-89-9	NA	20	ID	ID	ID	ID	ID	8,300	NA	NE	NE	NE	<20	<20	<20	<20	<20										
Methoxychlor	72-43-5	NA	16,000	NA	ID	ID	ID	ID	1,900,000	NA	NE	NE	NE	<50	<50	<50	<50	<50										
Toxaphene	8001-35-2	NA	24,000	8,200	NLV	NLV	NLV	NLV	20,000	NA	NE	NE	NE	<170	<170	<170	<170	<170										
All Other Analyzed Pesticides	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS	NE	NE	NE	<RL	<RL	<RL	<RL	<RL										

Notes:

- Concentrations reported in micrograms per kilogram (µg/kg).
- Analytical results were compared to December 30, 2013 Promulgated Cleanup Criteria, R 299.46, Table 2. Soil: Residential Part 201 Generic Cleanup Criteria and Screening Levels and the MDEQ Volatilization to Indoor Air Recommendations for Interim Action Screening Levels and Time-Sensitive Interim Action Screening levels, Guidance Document for the Vapor Intrusion Pathway, August 2017.
- Results exceeding one or more criteria are shaded, as are the criteria exceeded.
- VOCs - Volatile Organic Compounds. PAHs - Polynuclear Aromatic Hydrocarbons. PCBs - Polychlorinated Biphenyl. Refer to the analytical report for the full list of VOC, PAH, and PCB analytes.
- CS - Criterion is specific to individual constituent.
- <RL - Analytical result was below laboratory reporting limit(s).
- ID - Insufficient data to develop criteria.
- NA - Not applicable.
- NE - Not evaluated.
- NLV - Not likely to volatilize.
- NLL - Not likely to leach.
- * = GSI Protection was calculated for the indicated metals using the MDEQ spreadsheet for calculating GSI. A default water hardness value of 150 mg/kg as CaCO3 was used to calculate GSI. Results are presented for surface water receiving bodies protected as a drinking water source.
- Italicized - the respective criterion was below the Statewide Default Background Level (SDBL) and therefore the value defaulted to the SDBL value.
- ** - Total chromium results compared to the more restrictive hexavalent chromium criteria because chromium was not speciated.
- Concentrations were also compared to, and found to be below, the soil saturation concentration screening levels and particulate soil inhalation criteria.



TABLE 1
SUMMARY OF ANALYSIS RESULTS - SOIL
FORMER ROGELL GOLF COURSE
18600 and 18601 BERG ROAD
DETROIT, MICHIGAN
SME PROJECT NO. 077832.00.001.006
PAGE 8 OF 8

CONSTITUENT	Chemical Abstract Service Number	Statewide Default Background Levels	Part 201 Generic Residential Cleanup Criteria							MDEQ Recommended Interim Action Screening Levels for Soil	CHEMICAL ANALYSIS RESULTS					
			Drinking Water Protection Criteria	Groundwater Surface Water Interface Protection Criteria	Soil Volatilization to Indoor Air Inhalation Criteria	Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Direct Contact Criteria		Residential RIASL	Sample Identification				
												SB49	SB50	SB51	SB52	Methanol Blank Quality Control
											0 - 1	0 - 1	10.5 - 11.5	1 - 2		
											1/10/18	1/10/18	1/11/18	1/10/18	1/12/18	
											Drums of unknown content	Pole mounted transformer	Former heating oil UST area	Gasoline and diesel AST area	-	
											18600 Berg Road		18601 Berg Road	18600 Berg Road	-	
VOCs																
All Analyzed VOCs	CS	NA	CS	CS	CS	CS	CS	CS	CS	CS	CS	<RL	NE	<RL	<RL	<RL
PAHs																
Fluoranthene	206-44-0	NA	730,000	5,500	1,000,000,000	740,000,000	740,000,000	740,000,000	46,000,000	NA	NA	<330	NE	<330	<330	NE
All Other Analyzed PAHs		NA	CS	CS	CS	CS	CS	CS	CS	NA	NA	<RL	NE	<RL	<RL	<RL
PCBs																
Total of All Analyzed PCB Aroclors		NA	CS	CS	CS	CS	CS	CS	CS	NA	NA	NE	<RL	NE	NE	NE
Metals																
Arsenic	7440-38-2	5,800	5,800	5,800	NLV	NLV	NLV	NLV	7,600	NA	NA	5,700	NE	6,300	5,400	NE
Barium	7440-39-3	75,000	1,300,000	440,000*	NLV	NLV	NLV	NLV	37,000,000	NA	NA	29,000	NE	54,000	57,000	NE
Cadmium	7440-43-9	1,200	6,000	3,000*	NLV	NLV	NLV	NLV	550,000	NA	NA	500	NE	190	800	NE
Chromium, Total**	16065-83-1	18,000	1,000,000,000	1,000,000,000	NLV	NLV	NLV	NLV	790,000,000	NA	NA	12,000	NE	15,000	18,000	NE
Chromium VI	18540-29-9	NA	30,000	3,300	NLV	NLV	NLV	NLV	2,500,000	NA	NA	<2,300	NE	NE	<2,200	NE
Copper	7440-50-8	32,000	5,800,000	75,000*	NLV	NLV	NLV	NLV	20,000,000	NA	NA	8,600	NE	17,000	4,700	NE
Lead	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NA	NA	41,000	NE	9,000	42,000	NE
Lead, Total (Calculated)	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NA	NA	NE	NE	NE	NE	NE
Lead, Coarse Fraction	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NAA	NE	NE	NE	NE	NE	NE
Lead, Fine Fraction	7439-92-1	21,000	700,000	2,500,000*	NLV	NLV	NLV	NLV	400,000	NA	NE	NE	NE	NE	NE	NE
Mercury	7439-97-6	130	1,700	130	48,000	52,000	52,000	52,000	160,000	0.027	NA	1,100	NE	<50	620	NE
Selenium	7782-49-2	410	4,000	410	NLV	NLV	NLV	NLV	2,600,000	NA	NA	270	NE	370	<200	NE
Silver	7440-22-4	1,000	4,500	1,000	NLV	NLV	NLV	NLV	2,500,000	NA	NA	<100	NE	<100	<100	NE
Zinc	7440-66-6	47,000	2,400,000	170,000*	NLV	NLV	NLV	NLV	170,000,000	NA	NA	49,000	NE	48,000	99,000	NE
Herbicides																
Dalapon	75-99-0	NA	4,000	NA	NLV	NLV	NLV	NLV	19,000,000	NA	NA	<100	NE	NE	NE	NE
Dicamba	1918-00-9	NA	4,400	NA	NA	NLV	NLV	NLV	3,400,000	NA	NA	<100	NE	NE	NE	NE
2,4-Dichlorophenoxyacetic acid	94-75-7	NA	1,400	4,400	NLV	NLV	NLV	NLV	2,500,000	NA	NA	<200	NE	NE	NE	NE
Dinoseb	88-85-7	NA	300	200	NLV	NLV	NLV	NLV	66,000	NA	NA	<100	NE	NE	NE	NE
Silvex (2,4,5-TP)	93-72-1	NA	3,600	2,200	NLV	NLV	NLV	NLV	1,700,000	NA	NA	<200	NE	NE	NE	NE
All Other Analyzed Herbicides	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS	<RL	NE	NE	NE	NE
Pesticides																
Aldrin	309-00-2	NA	NLL	NLL	1,300,000	58,000	58,000	58,000	1,000	NA	NA	<20	NE	NE	NE	NE
Chlordane	57-74-9	NA	NLL	NLL	11,000,000	1,200,000	1,200,000	1,200,000	31,000	13,000	NA	<25	NE	NE	NE	NE
4-4'-DDD	72-54-8	NA	NLL	NLL	NLV	NLV	NLV	NLV	95,000	NA	NA	<20	NE	NE	NE	NE
4-4'-DDE	72-55-9	NA	NLL	NLL	NLV	NLV	NLV	NLV	45,000	NA	NA	110	NE	NE	NE	NE
4-4'-DDT	50-29-3	NA	NLL	NLL	NLV	NLV	NLV	NLV	57,000	NA	NA	80	NE	NE	NE	NE
Dieldrin	60-57-1	NA	NLL	NLL	140,000	19,000	19,000	19,000	1,100	NA	NA	33	NE	NE	NE	NE
Total Endosulfan	115-29-7	NA	NLL	NLL	ID	ID	ID	ID	1,400,000	NA	NA	<40	NE	NE	NE	NE
Endrin	72-20-8	NA	NLL	NLL	NLV	NLV	NLV	NLV	65,000	NA	NA	<20	NE	NE	NE	NE
Endrin Aldehyde	7421-93-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<20	NE	NE	NE	NE
Heptachlor	76-44-8	NA	NLL	NLL	350,000	62,000	62,000	62,000	5,600	NA	NA	<20	NE	NE	NE	NE
Heptachlor epoxide	1024-57-3	NA	NLL	NLL	NLV	NLV	NLV	NLV	3,100	NA	NA	<20	NE	NE	NE	NE
alpha-Hexachlorocyclohexane	319-84-6	NA	18	ID	30,000	12,000	22,000	25,000	2,600	NA	NA	<20	NE	NE	NE	NE
beta-Hexachlorocyclohexane	319-85-7	NA	37	ID	NLV	NLV	NLV	NLV	5,400	NA	NA	<20	NE	NE	NE	NE
Lindane	58-89-9	NA	20	20	ID	ID	ID	ID	8,300	NA	NA	<20	NE	NE	NE	NE
Methoxychlor	72-43-5	NA	16,000	NA	ID	ID	ID	ID	1,900,000	NA	NA	<50	NE	NE	NE	NE
Toxaphene	8001-35-2	NA	24,000	8,200	NLV	NLV	NLV	NLV	20,000	NA	NA	<170	NE	NE	NE	NE
All Other Analyzed Pesticides	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS	<RL	NE	NE	NE	NE

Notes:

- Concentrations reported in micrograms per kilogram (µg/kg).
- Analytical results were compared to December 30, 2013 Promulgated Cleanup Criteria, R 299.46, Table 2. Soil: Residential Part 201 Generic Cleanup Criteria and Screening Levels and the MDEQ Volatilization to Indoor Air Recommendations for Interim Action Screening Levels and Time-Sensitive Interim Action Screening Levels, Guidance Document for the Vapor Intrusion Pathway, August 2017.
- Results exceeding one or more criteria are shaded, as are the criteria exceeded.
- VOCs - Volatile Organic Compounds. PAHs - Polynuclear Aromatic Hydrocarbons. PCBs - Polychlorinated Biphenyl. Refer to the analytical report for the full list of VOC, PAH, and PCB analytes.
- CS - Criterion is specific to individual constituent.
- <RL - Analytical result was below laboratory reporting limit(s).
- ID - Insufficient data to develop criteria.
- NA - Not applicable.
- NE - Not evaluated.
- NLV - Not likely to volatilize.
- NLL - Not likely to leach.
- * = GSI Protection was calculated for the indicated metals using the MDEQ spreadsheet for calculating GSI. A default water hardness value of 150 mg/kg as CaCO3 was used to calculate GSI. Results are presented for surface water receiving bodies protected as a drinking water source.
- Italicized* - the respective criterion was below the Statewide Default Background Level (SDBL) and therefore the value defaulted to the SDBL value.
- ** - Total chromium results compared to the more restrictive hexavalent chromium criteria because chromium was not speciated.
- Concentrations were also compared to, and found to be below, the soil saturation concentration screening levels and particulate soil inhalation criteria.



TABLE 2
SUMMARY OF ANALYSIS RESULTS - GROUNDWATER
FORMER ROGELL GOLF COURSE
18600-18601 BERG ROAD
DETROIT, MICHIGAN
SME PROJECT NO. 077832.00.001.006
PAGE 1 OF 1

CONSTITUENT	Chemical Abstract Service Number	Part 201 Generic Cleanup Criteria		MDEQ Recommended Interim Action Screening Levels for Shallow Groundwater	Chemical Analytical Results Sample Identification Screened Interval (depth in feet) Date Collected						
		Residential Drinking Water Criteria	Groundwater Surface Water Interface Criteria	Residential RIASL	SB37	SB41	Duplicate-01	SB43	SB44	SB51	Field Blank
					7 - 12	8 - 12	SB41 (8 - 12)	6 - 10	8 - 12	8 - 12	Quality Control
					01/11/18	01/10/18	01/10/18	01/10/18	01/10/18	01/11/18	01/12/18
VOCs											
All Analyzed VOCs	CS	CS	CS	CS	<RL	<RL	<RL	<RL	<RL	<RL	<RL
PAHs											
All Analyzed PAHs	CS	CS	CS	NA	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Metals											
Arsenic	7440-38-2	10	10	NA	<5.0	<5.0	<5.0	<5.0	24	NE	NE
Arsenic, dissolved	7440-38-2	10	10	NA	NE	NE	NE	NE	44	NE	NE
Barium	7440-39-3	2,000	670*	NA	<100	<100	<100	<100	<100	NE	NE
Cadmium	7440-43-9	5	2.5*	NA	<1.0	<1.0	<1.0	<1.0	<1.0	NE	NE
Chromium, total**	18540-29-9	100	11	NA	<10	<10	<10	<10	<10	NE	NE
Copper	7440-50-8	1,000	13*	NA	4.1	<4.0	<4.0	<4.0	5.3	NE	NE
Lead	7439-92-1	4.0	14*	NA	<3.0	<3.0	<3.0	<3.0	5.4	NE	NE
Lead, dissolved	7439-92-1	4.0	14*	NA	NE	NE	NE	NE	<3.0	NE	NE
Mercury	7439-97-6	2.0	0.0013	0.088	<0.20	<0.20	<0.20	<0.20	<0.20	NE	NE
Selenium	7782-49-2	50	5	NA	<5.0	<5.0	<5.0	<5.0	<5.0	NE	NE
Silver	7440-22-4	34	0.2	NA	<0.20	<0.20	<0.20	<0.20	<0.20	NE	NE
Zinc	7440-66-6	2,400	170*	NA	<50	<50	<50	<50	<50	NE	NE

Notes:

- Concentrations reported in micrograms per liter (µg/L).
- Analytical results were compared to December 30, 2013 Promulgated Cleanup Criteria, R 299.44, Table 1. Groundwater Residential and Nonresidential Part 201 Generic Cleanup Criteria and Screening Levels and the MDEQ Volatilization to Indoor Air Recommendations for Interim Action Screening Levels and Time-Sensitive Interim Action Screening Levels.
- Results exceeding one or more criteria are shaded, as are the criteria exceeded.
- VOCs - Volatile Organic Compounds, SVOCs - Semivolatile Organic Compounds, PAHs - Polynuclear Aromatic Hydrocarbons, PCBs - Polychlorinated Biphenyls. Refer to the analytical report for the full list of VOC, SVOC, and PCB analytes. Refer to the analytical report for the full list of VOC, SVOC, and PCB analytes.
- CS - Criterion is specific to individual constituent.
- <RL - Analytical result was below laboratory reporting limit.
- NE - Not evaluated.
- NA - Not available.
- ID - Insufficient data to develop criterion.
- NLL - Not likely to leach under most soil conditions.
- * = GSI Protection was calculated for the indicated metals using the MDEQ spreadsheet for calculating GSI. A default water hardness value of 150 mg/kg as CaCO₃ was used to calculate GSI. Results are presented for surface water receiving bodies protected as a drinking water source.
- **Total chromium concentrations were compared to the more restrictive hexavalent chromium criteria because chromium was not speciated.
- Concentrations were also compared to, and found to be below, the groundwater volatilization to indoor air inhalation criteria, the flammability and explosivity screening levels, and the water solubility screening levels.
- RIASL - Recommended Interim Action Screening Levels.

APPENDIX F
QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

DRAFT



ANITA H. KETOLA, CHMM

PROJECT CONSULTANT

 (248) 938-2382  ketola@sme-usa.com

- Environmental Services
- Site Assessments and Due Diligence
- EHS Regulatory Compliance
- Project Management

BACKGROUND

Anita is a Project Consultant and Certified Hazardous Materials Manager (CHMM) in SME's Plymouth office. As a member of our Environmental Services group, she manages a variety of projects including environmental due diligence, site assessments for brownfield redevelopment support, underground storage tank (UST) closures and assessments, hazardous building materials assessment, and abatement projects. She is a licensed Asbestos Inspector through the Asbestos Hazard Emergency Response Act (AHERA) program. Anita has 15 years of experience providing due diligence services. Her expertise includes due diligence, environmental health and safety (EH&S) compliance and auditing, industrial hygiene, environmental assessment, and remedial design and oversight.

RELATED PROJECT EXPERIENCE

Performed over 190 Phase I Environmental Site Assessments (ESAs) on a variety of properties including gas stations, industrial facilities, multi-tenant residential, retail, commercial/office, and large portfolios.

Completed compliance and operations reviews for large portfolios of gas stations properties in Michigan, Ohio, Indiana, Illinois, Missouri, North Carolina, South Carolina, Tennessee, and Virginia.

Performed numerous Phase II ESAs, including soil boring and monitoring well installation, coordination of magnetometer survey, tank removals, Baseline Environmental Assessments, and Documentation of Due Care Compliance.

Assisted in wetland delineation and permit application activities for site development of large retail stores in Michigan.

Conducted air quality and industrial hygiene monitoring for analysis of radon, mold, asbestos, dust, metal working fluids, volatile organic compounds, metals, and noise at numerous multi-tenant residential, offices, hospitals, schools, manufacturing, retail, and bulk petroleum facilities.

Performed insurance claim investigation and oversight on projects associated with petroleum and industrial chemical releases, remediation, underground storage tank removals, and other EH&S related claims. Provides value to insurance clients by quickly understanding and clearly communicating what is reasonable and necessary regarding an insured's response to a claim and what the reasonable and necessary level of effort is required to obtain incident closure.



Conducted several EH&S compliance and management system audits for the automotive and manufacturing industry.

Developed job safety analysis, risk assessment, and machine specific energy control procedures for several automotive, manufacturing, research and development, and beverage facilities.

Developed a global asbestos management and abatement program and assisted in the development of a global audit program for a leading beverage company.

EDUCATION

B.S., Earth Sciences, Eastern Michigan University

CERTIFICATIONS AND SAFETY TRAINING

Certified Hazardous Materials Manager, CHMM No. 16652

Licensed Asbestos Inspector – Asbestos Hazard Emergency Response Act (AHERA)

ISO 14001:2015 Lead Auditor Trained

OSHA 40-Hour HAZWOPER Training

First Aid/CPR/AED Certified – American Heart Association

MIOSHA Occupational Health Certificate

MIOSHA Level I – Safety & Health General Industry Certificate

MISOHA Level 2 – Compliance for General Industry, Safe & Health Management System

AFFILIATIONS

Michigan Association of Hazardous Materials Professionals - Board Member



SARA I. BALS, EIT
PROJECT ENGINEER

(269) 720-7059 bals@sme-usa.com

- Environmental Services
- Brownfield Redevelopment Incentives
- Federal and State Grant Applications
- Phase I and II Environmental Site Assessments

BACKGROUND

Sara is a Project Engineer at SME with 11 years of experience in the acquisition of brownfield redevelopment incentives and planning for commercial and industrial redevelopments. She manages and provides consulting services for redevelopment projects, environmental due diligence services related to property acquisition, and liable party site investigations/monitoring and remediation. Sara performs a broad range of tasks related to brownfield redevelopment and assessment grants and financing, grant management activities, environmental due diligence (Phase I and II Environmental Site Assessments), regulatory reporting, Toxic Release Inventory (TRI) reporting, and other related environmental or subsurface assessment activities. She is an Environmental Professional (EP) as defined by U.S. EPA 40 CFR Part 213, Standards and Practices for All Appropriate Inquiries.

RELATED PROJECT EXPERIENCE

Manages ongoing soil and groundwater assessment activities for a former manufactured gas plant (MGS) in Kalamazoo, Michigan, including oversight of semi-annual sampling, evaluation of exposure pathways, assessment of groundwater/ surface water interface potential, NAPL assessment and recovery, conceptual site model development, and regulatory reporting.

Assisted with preparation of brownfield plans and Act 381 Work Plans for Jimmy John's Field minor league baseball stadium, 800-space parking lot, and community playground on two unregulated landfills in downtown Utica, Michigan. Helped secure millions of dollars in financing to support this redevelopment effort.

Supported the \$60M redevelopment of the former 80-acre General Motors Pontiac Validation Center into the M1 Concourse, an auto collector's condominium and event center located on America's first highway (M1) and ground zero for the Woodward Dream Cruise. Assisted with preparation of brownfield plans and Act 381 Work Plans, and helped to secure millions of dollars in financing.

Completed successful U.S. EPA Assessment and/or Revolving Loan Grant applications for the cities of Buchanan, Battle Creek, Albion and Calhoun County, Michigan; and the cities of Goshen, Noblesville, Kokomo, Huntington and Gary/Hammond/East Chicago, Indiana; and DeKalb, Madison, Howard and Hamilton Counties, Indiana.

Completed successful Energy Efficiency and Conservation Block Grant (EECBG) applications for the cities of Battle Creek and Wayne, Michigan, and assisted with associated grant implementation and management activities.

Tracked and reviewed costs for brownfield projects for various municipalities throughout Michigan.



RELATED PROJECT EXPERIENCE CONT.

Assisted with oversight and implementation of the Calhoun County, Buchanan, Albion, Battle Creek, Goshen and the Allegan, Otsego, and Plainwell Assessment Grants, and the Gary/Hammond/East Chicago RLF Grant, including development of Quality Assurance Project Plans (QAPPs), Health and Safety Plans (HASPs), Sampling and Analysis Plans (SAPs), community outreach, cost tracking and budgeting, and required reporting, and development of a conceptual site models to support assessment and redevelopment planning.

Assisted with development of Brownfield Plans and Act 381 Work Plans to support the W.K. Kellogg Institute expansion, a Toda America, Inc. project, and the former GM Grand Rapids Metal Stamping Plant decommissioning and demolition, including the development of bidding documents for associated demolition and soil removal activities, and financial tracking and management.

Project Manager for over \$500,000 in assessment of over 150 LUST sites as part of the Michigan Department of Environmental Quality (MDEQ) Expanded Triage project. Directs the subsurface assessment plan of orphan LUST sites located throughout the State of Michigan. Works with MDEQ staff to plan site work. Coordinates geophysical surveys at each site, supervises completion of subsurface assessment and collection of soil and groundwater samples from each site, and prepares reports to document site assessment activities.

Project Manager for the remedial actions at multiple former manufacturing sites in Goshen, Indiana. Following completion of remediation, secured Comfort Letters from the Indiana Department of Environmental Management (IDEM) supporting the redevelopment of sites for various municipal and commercial uses.

Performed over 175 Phase I ESAs, Phase II ESAs and BEAs in Michigan and Indiana for individuals, corporations and lending institutions, in association with properties ranging from residential/commercial to industrial usages.

Completed leaking underground storage tank (LUST) required reporting for multiple sites in southwest Michigan and northern Indiana, including Initial Assessment Reports, Final Assessment Reports and Closure Reports.

Prepared TRI reports for a major automotive manufacturer assembly and stamping facilities.

Analyzed data and prepared quarterly hydrogeologic monitoring reports for Central Sanitary and Werkner Road Landfill in Michigan.

EDUCATION

B.S., Civil and Environmental Engineering, Northern Arizona University
M.S., Environmental Engineering, University of Notre Dame

REGISTRATIONS AND CERTIFICATIONS

Engineer-in-Training (EIT) – Michigan
40-Hour HAZWOPER Training and 8-Hour Refresher, Health and Safety

AFFILIATIONS

Air & Waste Management Association (A&WMA)
Tau Beta Pi – Engineering Honor Society



JAMES M. HARLESS, PhD, CHMM

VICE PRESIDENT

☎ (734) 260-1130 ✉ harless@sme-usa.com

- Environmental Regulatory Compliance
- Regulatory Compliance Programs
- Environmental Liability Management
- Brownfield Redevelopment and Financing

BACKGROUND

James serves as Project Officer and Principal Consultant for SME with 40 years of experience. He is recognized as an expert in the field of environmental regulatory compliance and compliance programs, liability management, and brownfield redevelopment and financing. James provides senior technical and project management services in the areas of compliance auditing, compliance program development, site investigation and remediation, waste management, and litigation support. He has extensive experience in hazardous materials and hazardous waste management, right-to-know- programs, and assessment, remediation and redevelopment of environmentally contaminated sites. He was a member of the American Chemical Society's Laboratory Environmental, Health and Safety Task Force for 30 years and is a Fellow of the Institute for Hazardous Materials Management. Since joining SME in 2003, James has held positions of increasing responsibility leading to his appointment as Vice President and Principal.

RELATED PROJECT EXPERIENCE

Provided regulatory compliance services to industrial clients in the steel, plastics molding, plating and parts manufacturing sectors for a variety of environmental issues, including compliance audits, hazardous waste and hazardous chemicals management, industrial effluent analysis and management, hazard communication, spill prevention, spill decontamination and remediation, and waste characterization and disposal.

Designed and managed annual independent compliance auditing programs at over 15 plant sites for Kelsey-Hayes Corporation. Developed responses to assist plant personnel attain full compliance status.

Assisted with design and negotiation of RCRA and Toxic Substances Control Act (TSCA) administrative orders on consent for a 200-acre, integrated iron and steel facility.

Designed and managed PCB cleanup programs for multiple large industrial sites under EPA-approved, Self-Implementing Plans.

Provided senior technical expertise to industrial clients in the areas of air pollution monitoring, hazardous materials control ventilation, quality assurance and quality control, and chemical analysis.

Designed and managed RCRA compliance programs, including the development of waste minimization and waste management procedures, closures of multiple permitted facilities, design and negotiation of facility and unit specific corrective action programs, and laboratory waste management and disposal projects.



RELATED PROJECT EXPERIENCE CONT.

Managed assessment, remediation and closure of over 15 leaking UST sites including gasoline service stations, steam generating facilities and manufacturing plants

Designed and managed many contaminated site investigation and remediation projects including Hi-Mill Manufacturing Superfund site and multiple RCRA-permitted facility closures.

EDUCATION

B.A. Cum Laude, Chemistry, Rice University
PhD, Organic Chemistry, University of Texas at Austin

CERTIFICATIONS AND PROFESSIONAL TRAINING

Certified Hazardous Materials Manager (CHMM)
40-Hour HAZWOPER Course
HAZWOPER Site Supervisor
8-Hour HAZWOPER Annual Refresher
Certified Unmanned Aircraft System Remote Pilot – Federal Aviation Administration

AFFILIATIONS

Alliance of Hazardous Materials Professionals (AHMP), Past-President
Washtenaw County Brownfield Redevelopment Authority, Secretary, Past-Chair
Michigan Association of Hazardous Materials Professionals (MI-AHMP)
American Chemical Society (ACS)
Geoprofessional Business Association (GBA), Environmental Business Council
Michigan Aerospace Foundation, Vice President

AWARDS

Outstanding Environmental Professional of the Year, 2010 – Michigan Association of Environmental Professionals (MAEP)
Fellow of the Institute of Hazardous Materials Management (IHMM)