DEQ MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
UNDERGROUND STORAGE TANK DIVISION

FACILITY NUMBER (see invoice): 00009055

USTD USE ONLY

UPGRADE/CANCEL DATE	INCIDENT NUMBER
	C-252-96
ENTRY DATE: LH APR 29 1996	

RELEASE REPORT: ☐ SUSPECTED ☒ CONFIRMED

THIS INFORMATION IS REQUIRED UNDER 1988 PA 451, AS AMENDED (Act 451). FAILURE TO COMPLY WITH THE PROVISIONS OF THIS ACT MAY RESULT IN A MISDEMEANOR AND/OR CIVIL PENALTIES NOT TO EXCEED $5000 PER DAY, PER TANK.

INSTRUCTIONS: The owner, operator, or consultant must report suspected and confirmed release reports to the Underground Storage Tank Division (USTD) within 24 hours of discovery. Phone 1-800-MICHUST or FAX this form to 517-335-2245. All information on this form must be provided regardless of whether the release is reported by telephone or FAX. If you have any questions, please contact the USTD at 517-373-8168.

PERSON REPORTING RELEASE	COMPANY (IF NOT OWNER/OPERATOR)	AREA CODE & TELEPHONE NUMBER
ANGELA FARACI	Shell Oil Products Co.	313-953-4345

I. OWNERSHIP OF TANKS

☐ PLEASE CHECK IF NEW ADDRESS

NAME OF OWNER (CORPORATION/INDIVIDUAL, ETC.): Shell Oil Products Company

STREET ADDRESS: 17370 Laurel Park Suite 200

CITY: Livonia STATE: MI ZIP CODE: 48152

AREA CODE & TELEPHONE NUMBER: (313) 953-4300

II. LOCATION OF TANKS

☐ PLEASE CHECK IF SAME AS SECTION I

FACILITY NAME OR COMPANY SITE IDENTIFIER: Shell Station

STREET ADDRESS (P.O. Box Not Acceptable): 975 Rochester/Avon

CITY: ROCHESTER STATE: MI ZIP CODE: 48037

COUNTY: OAKLAND TOWNSHIP:

CONTACT PERSON FOR LOCATION: ISSAM FRANCIS

AREA CODE & TELEPHONE NUMBER: (313) 656-0080

DATE RELEASE DISCOVERED: 4-24-96

TIME RELEASE DISCOVERED: 3:00 pm

SIZE OF TANK (Gallons)	SUBSTANCE RELEASED	CONSTRUCTION OF TANK	REASON FOR BELIEVING RELEASE OCCURRED (e.g. presence of product, failed tightness test, vapors, stains)
10M	gasoline	STEEL	lab results showed
10M	" "	STEEL	MTBE in soil
6M	" "	STEEL	

COMMENTS:

USTD USE ONLY

DATE/TIME REPORTED: 4/25/96 10:28 ☒ AM ☐ PM ☐ PHONE ☒ FAX ☐ VOICE MAIL

DISTRIBUTION: ORIGINAL: USTD, FACILITY FILE
COPY: OWNER

USTD SIGNATURE: [signature]

EQP 3826 (10/95)

STATE OF MICHIGAN

JOHN ENGLER, Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973

RUSSELL J. HARDING, Director

REPLY TO:

UNDERGROUND STORAGE TANK DIVISION
TOWN CENTER
PO BOX 30157
LANSING MI 48909-7657

April 29, 1996

CERTIFIED MAIL

Dear Owner/Operator:

SUBJECT:
Underground Storage Tank System Release
Facility ID No. 0-009055
Confirmed Release No. C-252-96
SHELL SERVICE STATION
975 S ROCHESTER/AVON
ROCHESTER, MI 48037

On 04-25-96, the Department of Environmental Quality (DEQ), Underground Storage Tank Division (USTD), was notified that there was 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. This letter and attachments are to help your understanding of the following: site investigation and cleanup requirements; forms and reporting requirements; and penalties for late reports and fraud. **If necessary, contact the USTD SOUTHEAST MICHIGAN DISTRICT OFFICE at (313) 953-0241 for further guidance.** (Refer to attachments)

Cleanup Requirements

Part 213 specifies actions a UST owner or operator is required to take when a release is discovered. Please refer to Part 213 and the attached flow chart to help guide you through the requirements. USTD approval is needed for any institutional controls that are a part of the cleanup program. The USTD may audit or oversee all aspects of corrective actions undertaken pursuant to Part 213. To assist the USTD in this capacity, you are required to contact our District Office at least 48 hours prior to conducting on-site activities, using the attached forms.

Forms and Reports

The USTD requires the use of forms to assist in the reporting requirements. The required forms are available from the district office. A LUST report cover sheet should be submitted with each report. In addition, you are required to notify USTD of any changes to your UST system using a registration form.

Penalties

Be advised that pursuant to Section 21313a and 21323, the owner or operator is subject to penalties for not preparing and submitting the reports outlined in Part 213. Section 21324 provides that a person who submits or causes to be submitted false or misleading information may be found guilty of fraud.

Please include the Facility ID No. found under "Subject" at the top of this notification with each submittal and on any future correspondence. Should you have questions regarding this letter, or need additional information, please contact the USTD SOUTHEAST MICHIGAN DISTRICT OFFICE at (313) 953-0241.

Sincerely,

Terri Harmon
Enforcement Unit

Enclosures
cc: SOUTHEAST MICHIGAN DISTRICT OFFICE

EQP 0100e
(10/95)

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- 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:
9055
Angela Faraci
Shell Oil
17370 Laurel Pk Ste. 200
Livonia MI 48152

4a. Article Number
P 608 633 946

4b. Service Type
☐ Registered ☑ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery
4/30/96

5. Received By: *(Print Name)*

8. Addressee's Address *(Only if requested and fee is paid)*

6. Signature: *(Addressee or Agent)*
X

PS Form **3811,** December 1994 Domestic Return Receipt

Thank you for using Return Receipt Service.

PS Form **3800**, April 1995

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

P 608 633 946

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	

02/13/96 08:02 ☎8109534300 SHELL MI ☑001/001

9-1-517-335-2245

MICHIGAN DEPARTMENT OF NATURAL RESOURCES DNR
UNDERGROUND STORAGE TANK DIVISION

Cancel per A. Faraci - hole at top of tank lost 2/21/96

RELEASE REPORT: ☒ Suspected ☐ Confirmed

This information is required under Act 423, P.A. 1984, as amended. Failure to comply with the provisions of this Act may result in a misdemeanor and/or Civil penalities not to exceed $5000 per day, per tank.

USTD USE ONLY	
UPGRADE/CANCEL DATE: 3/5/96	FACILITY NUMBER: 9055
D.E. CLERK INITIALS & DATE:	INCIDENT NUMBER: 5-93-96

24 hour violation TLH FEB 28 1996 TLH FEB 17 1996 D-93-96

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 USTD at 517-373-8168. See reverse side of this form for additional information.

PERSON REPORTING RELEASE:	COMPANY (IF NOT OWNER/OPERATOR)	AREA CODE & TELEPHONE NUMBE
Angela Faraci	Shell Oil Products Co.	313-953-4302

I. OWNERSHIP OF TANKS	II. LOCATION OF TANKS
☐ PLEASE CHECK IF NEW OWNER'S ADDRESS	☐ PLEASE CHECK IF SAME AS SECTION I
NAME OF OWNER (CORPORATION, INDIVIDUAL, ETC.)	FACILITY NAME OR COMPANY SITE IDENTIFIER: Shell Station
Shell Oil Products Company	STREET ADDRESS (P.O. Box Not Acceptable): 975 Rochester / Avon
STREET ADDRESS: 17370 Laurel Pk #200	CITY: Rochester STATE: MI ZIP COD: 48063
CITY: Livonia STATE: MI ZIP CODE: 48152	COUNTY: Oakland TOWNSHIP:
AREACODE & TELEPHONE NUMBER: 313-953-4300	CONTACT PERSON FOR LOCATION: Dealer AREA CODE & TELEPHONE NUMBE: (810)656-0080
DATE RELEASE DISCOVERED: 2-7-96	TIME RELEASE DISCOVERED: 3:30 pm

SIZE OF TANK (Gallons)	SUBSTANCE RELEASED	CONSTRUCTION OF TANK	REASON FOR BELIEVING RELEASE OCCURRED (e.g. presence of product, failed tightness test, vapors, stains)
10,000	Regular Gasoline	Fiber glass	tank failed tightness test

COMMENTS:

USTD USE ONLY

DATE/TIME REPORTED: 2/13/96 7:55 ☑ AM ☐ PM ☐ PHONE ☑ FAX ☐ VOICE MAIL

DISTRIBUTION WHITE: UST DIVISION, FACILITY FILE
COPY: MUSTFA
COPY: OWNER

USTD SIGNATURE: Teri Han

PR 3828 (1/9

9-1-517-335-2245

MICHIGAN DEPARTMENT OF NATURAL RESOURCES DNR
UNDERGROUND STORAGE TANK DIVISION

USTD USE ONLY	
UPGRADE/CANCEL DATE	FACILITY NUMBER 9055
D.E.Q. CLERK INITIALS & DATE	INCIDENT NUMBER

RELEASE REPORT: ☒ Suspected ☐ Confirmed

This information is required under Act 423, P.A. 1994, as amended. 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 USTD at 517-373-8168. See reverse side of this form for additional information.

PERSON REPORTING RELEASE	COMPANY (IF NOT OWNER/OPERATOR)	AREA CODE & TELEPHONE NUMBER
Angela Faraci	Shell Oil Products Co.	313-953 4300

I. OWNERSHIP OF TANKS

☐ PLEASE CHECK IF NEW OWNER'S ADDRESS

NAME OF OWNER (CORPORATION/INDIVIDUAL ETC.): Shell Oil Products Company

STREET ADDRESS: 17370 Laurel Pk #200

CITY: Livonia STATE: MI ZIP CODE: 48152

AREACODE & TELEPHONE NUMBER: 313-953-4300

II. LOCATION OF TANKS

☐ PLEASE CHECK IF SAME AS SECTION I

FACILITY NAME OR COMPANY SITE IDENTIFIER: Shell Station

STREET ADDRESS (P.O. Box Not Acceptable): 975 Rochester / Avon

CITY: Rochester STATE: MI ZIP CODE: 48063

COUNTY: Oakland TOWNSHIP:

CONTACT PERSON FOR LOCATION: Dealer AREA CODE & TELEPHONE NUMBER: (810)6560080

DATE RELEASE DISCOVERED: 2-7-96 **TIME RELEASE DISCOVERED:** 3:30pm

SIZE OF TANK (Gallons)	SUBSTANCE RELEASED	CONSTRUCTION OF TANK	REASON FOR BELIEVING RELEASE OCCURRED (e.g. presence of product, failed tightness test, vapors, stains)
10,000	Regular Gasoline	Fiber glass	tank failed tightness test.

COMMENTS:

USTD USE ONLY

DATE/TIME REPORTED: _____ _____ ☐ AM ☐ PM ☐ PHONE ☐ FAX ☐ VOICE MAIL

DISTRIBUTION WHITE: UST DIVISION, FACILITY FILE
COPY: MUSTFA
COPY: OWNER

USTD SIGNATURE

PR 3828 (1/95)

9-1-517-335-2245

MICHIGAN DEPARTMENT OF NATURAL RESOURCES DNR
UNDERGROUND STORAGE TANK DIVISION

USTD USE ONLY	
UPGRADE/CANCEL DATE	FACILITY NUMBER 9055
D.E. CLERK INITIALS & DATE	INCIDENT NUMBER

RELEASE REPORT: Cancel ☒ Suspected ☐ Confirmed

This information is required under Act 423, P.A. 1984, as amended. 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 USTD at 517-373-8168. See reverse side of this form for additional information.

PERSON REPORTING RELEASE	COMPANY (IF NOT OWNER/OPERATOR)	AREA CODE & TELEPHONE NUMBER
Angela Faraci	Shell Oil Products Co.	313-953 4300

I. OWNERSHIP OF TANKS

☐ PLEASE CHECK IF NEW OWNER'S ADDRESS

NAME OF OWNER (CORPORATION/INDIVIDUAL, ETC.)
Shell Oil Products Company

STREET ADDRESS
17370 Laurel Pk #200

CITY: Livonia STATE: MI ZIP CODE: 48152

AREA CODE & TELEPHONE NUMBER: 313-953-4300

II. LOCATION OF TANKS

☐ PLEASE CHECK IF SAME AS SECTION I

FACILITY NAME OR COMPANY SITE IDENTIFIER
Shell Station

STREET ADDRESS (P.O. Box Not Acceptable)
975 Rochester / Avon

CITY: Rochester STATE: MI ZIP CODE: 48063

COUNTY: Oakland TOWNSHIP:

CONTACT PERSON FOR LOCATION: Dealer

AREA CODE & TELEPHONE NUMBER: (810)650 0080

DATE RELEASE DISCOVERED: 2-7-96

TIME RELEASE DISCOVERED: 3:30 pm

SIZE OF TANK (Gallons)	SUBSTANCE RELEASED	CONSTRUCTION OF TANK	REASON FOR BELIEVING RELEASE OCCURRED (e.g. presence of product, failed tightness test, vapors, stains)
10,000	Regular	Fiber	tank failed tightness test.
	Gasoline	glass	

COMMENTS: Please CANCEL this Suspected release. The tank was leaking From the top - No product was released 2-21-96

USTD USE ONLY

DATE/TIME REPORTED: _____ _____ ☐ AM ☐ PM ☐ PHONE ☐ FAX ☐ VOICE MAIL

DISTRIBUTION WHITE: UST DIVISION, FACILITY FILE
COPY: MUSTFA
COPY: OWNER

USTD SIGNATURE

PR 3826 (1/95)

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
UNDERGROUND STORAGE TANK DIVISION

9055

USTD USE ONLY	
UPGRADE/CANCEL DATE	INCIDENT NUMBER C-214-96
ENTRY DATE LH APR 10 1996	

RELEASE REPORT: ☐ SUSPECTED ☒ CONFIRMED

THIS INFORMATION IS REQUIRED UNDER 1994 PA 451, AS AMENDED (Act 451). FAILURE TO COMPLY WITH THE PROVISIONS OF THIS ACT MAY RESULT IN A MISDEMEANOR AND/OR CIVIL PENALTIES NOT TO EXCEED $5000 PER DAY, PER TANK.

INSTRUCTIONS: The owner, operator, or consultant must report suspected and confirmed release reports to the Underground Storage Tank Division (USTD) within 24 hours of discovery. Phone 1-800-MICHUST or FAX this form to 517-335-2245. All information on this form must be provided regardless of whether the release is reported by telephone or FAX. If you have any questions, please contact the USTD at 617-373-8168.

PERSON REPORTING RELEASE	COMPANY (IF NOT OWNER/OPERATOR)	AREA CODE & TELEPHONE NUMBER
DARRYL D. BARRICKLOW	ENECOTECH MIDWEST, INC	(810) 489-0809

I. OWNERSHIP OF TANKS

☐ PLEASE CHECK IF NEW ADDRESS

NAME OF OWNER (CORPORATION/INDIVIDUAL, ETC.)
SHELL OIL PRODUCTS COMPANY

STREET ADDRESS
17370 LAUREL PARK DR. NORTH STE 200

CITY: LIVONIA | STATE: MI | ZIP CODE: 48152

AREA CODE & TELEPHONE NUMBER
(313) 953-4341

DATE RELEASE DISCOVERED: 4/8/96

II. LOCATION OF TANKS

☐ PLEASE CHECK IF SAME AS SECTION I

FACILITY NAME OR COMPANY SITE IDENTIFIER
SHELL SERVICE STATION

STREET ADDRESS (P.O. Box Not Acceptable)
975 ROCHESTER

CITY: ROCHESTER | STATE: MI | ZIP CODE: 48307

COUNTY: OAKLAND | TOWNSHIP

CONTACT PERSON FOR LOCATION: ANGELA FARACI

AREA CODE & TELEPHONE NUMBER: (313) 953-4341

TIME RELEASE DISCOVERED: 3:38

SIZE OF TANK (Gallons)	SUBSTANCE RELEASED	CONSTRUCTION OF TANK	REASON FOR BELIEVING RELEASE OCCURRED (e.g. presence of product, failed tightness test, vapors, stains)
1,000	WASTE OIL	STEEL	FAILED TANK TIGHTNESS TEST

COMMENTS: REPORTED AT REQUEST OF ANGELA FARACI

USTD USE ONLY

DATE/TIME REPORTED 4/9/96 14:22 ☐ AM ☐ PM

☐ PHONE ☒ FAX ☐ VOICE MAIL

DISTRIBUTION ORIGINAL: USTD, FACILITY FILE
COPY: OWNER

USTD SIGNATURE Jeri Hamm

EQP 3628 (10/95)

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
UNDERGROUND STORAGE TANK DIVISION

USTD USE ONLY	
UPGRADE/CANCEL DATE	INCIDENT NUMBER
ENTRY DATE	

RELEASE REPORT: ☐ SUSPECTED ☒ CONFIRMED

THIS INFORMATION IS REQUIRED UNDER 1984 PA 451, AS AMENDED. FAILURE TO COMPLY WITH THE PROVISIONS OF THIS ACT MAY RESULT IN A MISDEMEANOR AND/OR CIVIL PENALTIES NOT TO EXCEED $5000 PER DAY, PER TANK.

INSTRUCTIONS: The owner, operator, or consultant must report suspected and confirmed release reports to the Underground Storage Tank Division (USTD) within 24 hours of discovery. Phone 1-800-MICHUST or FAX this form to 517-335-2245. All information on this form must be provided regardless of whether the release is reported by telephone or FAX. If you have any questions, please contact the USTD at 517-373-8168.

PERSON REPORTING RELEASE	COMPANY (IF NOT OWNER/OPERATOR)	AREA CODE & TELEPHONE NUMBER
Darryl D. Barrickman	EnecoTech Midwest, Inc	(313) 487 0809

I. OWNERSHIP OF TANKS

☐ PLEASE CHECK IF NEW ADDRESS

NAME OF OWNER (CORPORATION/INDIVIDUAL, ETC.): Shell Oil Products Company

STREET ADDRESS: 17210 Laurel Park Dr. North Ste 200

CITY: Livonia STATE: MI ZIP CODE: 48152

AREA CODE & TELEPHONE NUMBER: (313) 953-4341

II. LOCATION OF TANKS

☐ PLEASE CHECK IF SAME AS SECTION I

FACILITY NAME OR COMPANY SITE IDENTIFIER: Shell Service Station

STREET ADDRESS (P.O. Box Not Acceptable): 975 Rochester

CITY: Rochester STATE: MI ZIP CODE: 48307

COUNTY: Oakland TOWNSHIP:

CONTACT PERSON FOR LOCATION: Angela Faraci AREA CODE & TELEPHONE NUMBER: (313) 953-4341

DATE RELEASE DISCOVERED: 4/8/96

TIME RELEASE DISCOVERED: 3:28

SIZE OF TANK (Gallons)	SUBSTANCE RELEASED	CONSTRUCTION OF TANK	REASON FOR BELIEVING RELEASE OCCURRED (e.g. presence of product, failed tightness test, vapors, stains)
1,000	Waste Oil	Steel	Failed Tank Tightness Test

COMMENTS: Reported at request of Angela Faraci

USTD USE ONLY

DATE/TIME REPORTED ________ ☐ AM ☐ PM ☐ PHONE ☐ FAX ☐ VOICE MAIL

DISTRIBUTION ORIGINAL: USTD, FACILITY FILE
COPY: OWNER

USTD SIGNATURE

EQP 3328 (10/95)

STATE OF MICHIGAN

JOHN ENGLER, Governor
DEPARTMENT OF ENVIRONMENTAL QUALITY
HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973
RUSSELL J. HARDING, Director

REPLY TO:
UNDERGROUND STORAGE TANK DIVISION
TOWN CENTER
PO BOX 30157
LANSING MI 48909-7657

April 10, 1996

CERTIFIED MAIL

Dear Owner/Operator:

SUBJECT:
Underground Storage Tank System Release
Facility ID No. 0-009055
Confirmed Release No. C-214-96
SHELL SERVICE STATION
975 S ROCHESTER/AVON
ROCHESTER, MI 48037

On 04-09-96, the Department of Environmental Quality (DEQ), Underground Storage Tank Division (USTD), was notified that there was a release of a regulated substance from an underground storage tank (UST) system at the above mentioned location. Attached is a copy of the confirmed release report. This letter and attachments are to help your understanding of the following: the need to retain a Qualified UST Consultant (QC); site investigation and cleanup requirements; reporting requirements; forms requirements and penalties for late reports and fraud. **Please seek assistance from the USTD SOUTHEAST MICHIGAN DISTRICT OFFICE at (313) 953-0241 for further guidance, if necessary.** (A copy of the district offices and boundaries is attached for your reference.)

Qualified UST Consultant (QC)
The requirements for site investigation and cleanup, reporting, penalties, funds to assist cleanup and pollution liability insurance are in the Natural Resources and Environmental Response Act 1994 PA 451, as amended (Act 451). Part 213 of Act 451 requires you to retain a QC to perform the activities required at a LUST site. The USTD has prepared an interim list of QC's. The authority for establishing the QC list is provided under Part 215 of Act 451. Those on the current interim list (attached) are eligible to perform LUST corrective action services. The permanent Qualified UST Consultant list should be available in the Spring of 1996.

Cleanup Requirements
Part 213 specifies actions a UST owner or operator is required to take when a release is discovered. Please refer to Part 213 and the attached flow chart to help guide you through the requirements.

The Qualified Consultant is allowed to proceed with the preparation and implementation of corrective action workplans without prior USTD review or approval. USTD approval is needed for any institutional controls that are a part of the cleanup program. The USTD may audit or oversee all aspects of corrective actions undertaken pursuant to Part 213. To assist the USTD in this capacity, the QC is required to contact our District Office at least 48 hours prior to conducting on-site activities, using the attached form.

Forms and Reports
The USTD has created and requires the use of forms to assist in the reporting requirements. The required forms are available from the district office. The QC should submit a LUST report cover sheet with each report (enclosed). In addition, you are required to notify USTD of any changes to your UST system using a registration form (copy attached).

Penalties

Be advised that pursuant to Section 21313a and 21323, the owner or operator is subject to penalties for not preparing and submitting the reports outlined in Part 213. The owner or operator may, by contract, transfer the responsibility for paying these administrative penalties to a consultant retained by the owner or operator. Section 21324 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 notification letter, or need additional information, please contact the USTD SOUTHEAST MICHIGAN DISTRICT OFFICE at (313) 953-0241.

Sincerely,

Terri Harmon
Enforcement Unit
Underground Storage Tank Division

Enclosures

cc: SOUTHEAST MICHIGAN DISTRICT OFFICE

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- 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: 9055
Angela Faraci
Shell Oil
17370 Laurel Park Dr N. Ste200
Livonia MI 48152

4a. Article Number
P 608 633 912

4b. Service Type
☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery
04/15/96

5. Received By: *(Print Name)*

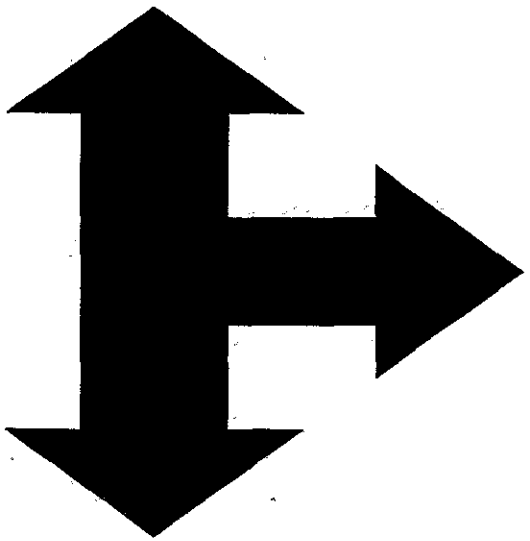
8. Addressee's Address *(Only if requested and fee is paid)*

6. Signature: *(Addressee or Agent)*
X B. [illegible]

PS Form **3811**, December 1994 Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.



PS Form **3800**, April 1995

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail (See reverse)

P 608 633 912

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

Facility No: 0-009055 Comp No: 053196

Page 01 of 01

Department of Environmental Quality
Underground Storage Tank Division

96 JUN -5 PM 12: 14

RECEIVED JUN 06 1996
ENVIRONMENTAL QUALITY
UST DIVISION

INSPECTION REPORT

Type of Inspection Performed: FINAL INSTALLATION INSPECTION

Type of Facility: PUBLIC AUTOMOTIVE SERVICE STATION Number of Tanks: 3

Site Contact: MATT--LARSON Site Phone Number: (810) 620-0070
Owner's Representative: ANGELA FARACI Representative's Phone: (313) 953-4345

OWNERSHIP OF TANKS	LOCATION OF TANKS
Owner Name: SHELL OIL CO Address: 17370 LAUREL PK NORTH SUITE 200 LIVONIA, MI 48152	Name: SHELL SERVICE STATION Address: 975 S ROCHESTER/AVON ROCHESTER, MI 48037 County: OAKLAND

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:

Inspection Status: FACILITY APPROVED

Date of Inspection: 05/31/96 Date Compliance is Required: <not applicable>

Signature: _____
DOUGLAS PENTZIEN

AUTHORITY: 1994 PA 451 1941 PA 207 COMPLIANCE: Required PENALTY: Misdemeanor, Civil Penalties	SOUTHEAST MICHIGAN DISTRICT OFFICE 38980 SEVEN MILE ROAD LIVONIA, MI 48152 Phone: (313) 432-1253 Fax: (313) 432-1295

PR3816E

REVISED FORM 2/21/96 SW

FM-56 (10/92)
Michigan State Police
STATE FIRE MARSHAL

INCIDENT # 5-93-96

UNDERGROUND TANK RESTORATION

MAIL TO: Michigan Department of State Police
FIRE MARSHAL DIVISION
Hazardous Materials Unit
7150 Harris Drive
Lansing, MI 48913

AUTHORITY:	1984 PA 423
COMPLIANCE:	Required
PENALTY:	Misdemeanor

SECTION 1: TANK REPAIR NOTIFICATION

9055

NAME OF APPLICATOR FIRM: ARMOR SHIELD OF ILLINOIS	DATE OF NOTIFICATION: 2-21-96
ADDRESS: 902 SUAN BUREN NEWTON, IL 62448	TELEPHONE NO.: 618-783-2079
RELINING MATERIAL TO BE USED: TL 300 M / MANUFACTURED BY: ARMOR SHIELD	INSURANCE CERTIFICATE: ☒ AT STATE FM ☐ ATTACHED
NAME OF FIRM WHERE TANKS ARE LOCATED: SHELL STATION	TELEPHONE NO.: 810-656-0080
ADDRESS: 975 Rochester & AVON Rochester Hills, MI 48063	
COUNTY: OAKLAND / FACILITY TYPE: SERVICE STATION	

REASON FOR RELINING (Check One)	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Preventative Maintenance	☒	☒	☒	☐
Repair Leaks	☐	☐	☐	☐

EST. DATE OF EVALUATION: 2-20-96	EST. DATE OF TANK PREPARATION: 2-21-96	EST. DATE OF PRODUCT APPLICATION: 2-21-96
EST. DATE OF LINING TEST: 2-23-96	EST. DATE OF TANK CLOSING: 2-24-96	EST. DATE OVERFILL PROTECTION INSTALLED: N/A
EST. DATE OF REQUIRED TANK TEST: 2-27-96		EST. DATE OF PROJECT COMPLETION: 2-27-96

SECTION 2: CERTIFICATE OF PERFORMANCE

RELINING MATERIAL USED: TL 300 M	MANUFACTURED BY: ARMOR SHIELD	COMPLETION DATE: 3-1-96
TANK 1 CONSTRUCTION: ☒ STEEL ☐ NONMETALLIC	CAPACITY: 10,000	YEAR INSTALLED: N/A

PRODUCT TO BE STORED
☐ GASOLINE W/LEAD ☒ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER

TANK STATUS
☐ REPAIRED ☒ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED BY OWNER

TANK 2 CONSTRUCTION: ☒ STEEL ☐ NONMETALLIC	CAPACITY: 10,000	YEAR INSTALLED: N/A

PRODUCT TO BE STORED
☐ GASOLINE W/LEAD ☒ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER

TANK STATUS
☐ REPAIRED ☒ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED BY OWNER

TANK 3 CONSTRUCTION: ☒ STEEL ☐ NONMETALLIC	CAPACITY: 6000	YEAR INSTALLED: N/A

PRODUCT TO BE STORED
☐ GASOLINE W/LEAD ☒ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER

TANK STATUS
☐ REPAIRED ☒ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED BY OWNER

TANK 4 CONSTRUCTION: ☐ STEEL ☐ NONMETALLIC	CAPACITY:	YEAR INSTALLED:

PRODUCT TO BE STORED
☐ GASOLINE W/LEAD ☐ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER

TANK STATUS
☐ REPAIRED ☐ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED BY OWNER

*IF "RELINED" BOX IS CHECKED, THE TANK PREPARATION AND PRODUCT APPLICATION MUST COMPLY WITH THE SEALANT MANUFACTURER'S SPECIFICATIONS, WHICH MUST BE REGISTERED WITH THE STATE FIRE MARSHAL.

SIGNATURE OF QUALIFIED APPLICATOR: X	DATE CERTIFICATE SUBMITTED: 3-4-96

WHITE - FM HQ AFTER PROJECT IS COMPLETED CANARY - APPLICATOR'S COPY PINK - COMPLETE SEC. 1 AND SUBMIT TO FM HQ BEFORE WORK IS BEGUN

Revised Form 2-21-96
New Form Submitted!

FM-55 (10/92)
Michigan State Police
STATE FIRE MARSHAL

UNDERGROUND TANK RESTORATION

MAIL TO: Michigan Department of State Police
FIRE MARSHAL DIVISION
Hazardous Materials Unit
7150 Harris Drive
Lansing, MI 48913

AUTHORITY:	1984 PA 423
COMPLIANCE:	Required
PENALTY:	Misdemeanor

SECTION 1: TANK REPAIR NOTIFICATION

NAME OF APPLICATOR FIRM: ARMOR SHIELD OF ILLINOIS			DATE OF NOTIFICATION: 2-13-96
ADDRESS: 902 S VAN BUREN NEWTON, IL 62448			TELEPHONE NO.: 618-783-2019
RELINING MATERIAL TO BE USED: TL 300 M	MANUFACTURED BY: ARMOR SHIELD		INSURANCE CERTIFICATE: ☒ AT STATE FM ☐ ATTACHED
NAME OF FIRM WHERE TANKS ARE LOCATED: SHELL STATION			TELEPHONE NO.: PH # 810-656-0080
ADDRESS: 975 Rochester & AVON Rochester Hills, MI 48063			
COUNTY: OAKLAND	FACILITY TYPE: SERVICE STATION		

REASON FOR RELINING (Check One)	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Preventative Maintenance	☒	☐	☐	☐
Repair Leaks	☐	☐	☐	☐

EST. DATE OF EVALUATION: 2-27-96	EST. DATE OF TANK PREPARATION: 2-27-96	EST. DATE OF PRODUCT APPLICATION: 2-28-96
EST. DATE OF LINING TEST: 2-28-96	EST. DATE OF TANK CLOSING: 2-28-96	EST. DATE OVERFILL PROTECTION INSTALLED: N/A
EST. DATE OF REQUIRED TANK TEST: 2-28-96		EST. DATE OF PROJECT COMPLETION: 2-28-96

SECTION 2: CERTIFICATE OF PERFORMANCE

RELINING MATERIAL USED	MANUFACTURED BY	COMPLETION DATE
TANK 1 CONSTRUCTION ☐ STEEL ☐ NONMETALLIC	CAPACITY	YEAR INSTALLED

PRODUCT TO BE STORED
☐ GASOLINE W/LEAD ☐ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER _____

TANK STATUS
☐ REPAIRED ☐ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED BY OWNER

TANK 2 CONSTRUCTION ☐ STEEL ☐ NONMETALLIC	CAPACITY	YEAR INSTALLED

PRODUCT TO BE STORED
☐ GASOLINE W/LEAD ☐ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER _____

TANK STATUS
☐ REPAIRED ☐ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED BY OWNER

TANK 3 CONSTRUCTION ☐ STEEL ☐ NONMETALLIC	CAPACITY	YEAR INSTALLED

PRODUCT TO BE STORED
☐ GASOLINE W/LEAD ☐ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER _____

TANK STATUS
☐ REPAIRED ☐ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED BY OWNER

TANK 4 CONSTRUCTION ☐ STEEL ☐ NONMETALLIC	CAPACITY	YEAR INSTALLED

PRODUCT TO BE STORED
☐ GASOLINE W/LEAD ☐ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER _____

TANK STATUS
☐ REPAIRED ☐ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED BY OWNER

*IF "RELINED" BOX IS CHECKED, THE TANK PREPARATION AND PRODUCT APPLICATION MUST COMPLY WITH THE SEALANT MANUFACTURER'S SPECIFICATIONS, WHICH MUST BE REGISTERED WITH THE STATE FIRE MARSHAL.

SIGNATURE OF QUALIFIED APPLICATOR X	DATE CERTIFICATE SUBMITTED

WHITE - FM HQ AFTER PROJECT IS COMPLETED CANARY - APPLICATOR'S COPY PINK - COMPLETE SEC. 1 AND SUBMIT TO FM HQ BEFORE WORK IS BEGUN

REVISED FORM 2/21/96 SM

FM-56 (10/92)
Michigan State Police
STATE FIRE MARSHAL Incident # 5-33-96 Permit # 2-2696

UNDERGROUND TANK RESTORATION

MAIL TO: **Michigan Department of State Police**
FIRE MARSHAL DIVISION
Hazardous Materials Unit
7150 Harris Drive
Lansing, MI 48913

AUTHORITY:	1984 PA 423
COMPLIANCE:	Required
PENALTY:	Misdemeanor

SECTION 1: TANK REPAIR NOTIFICATION

9055

NAME OF APPLICATOR FIRM		DATE OF NOTIFICATION
Armor Shield of ILLINOIS		2-21-96
ADDRESS		**TELEPHONE NO.**
702 SUAN SUREN Newton, IL 62448		618-783-2019
RELINING MATERIAL TO BE USED	**MANUFACTURED BY**	**INSURANCE CERTIFICATE**
TL 300M	Armor shield	☒ AT STATE FM ☐ ATTACHED
NAME OF FIRM WHERE TANKS ARE LOCATED		**TELEPHONE NO.**
SHELL STATION		810-656-0080
ADDRESS		
975 Rochester + AVON Rochester Hills, MI 48063		
COUNTY	**FACILITY TYPE**	
OAKLAND	SERVICE STATION	

REASON FOR RELINING (Check One)	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Preventative Maintenance	☒	☒	☒	☐
Repair Leaks	☐	☐	☐	☐

EST. DATE OF EVALUATION	EST. DATE OF TANK PREPARATION	EST. DATE OF PRODUCT APPLICATION
2-22-96	2-22-96	2-23-96
EST. DATE OF LINING TEST	**EST. DATE OF TANK CLOSING**	**EST. DATE OVERFILL PROTECTION INSTALLED**
2-23-96	2-24-96	N/A
EST. DATE OF REQUIRED TANK TEST		**EST. DATE OF PROJECT COMPLETION**
2-27-96		2-27-96

SECTION 2: CERTIFICATE OF PERFORMANCE

RELINING MATERIAL USED	MANUFACTURED BY	COMPLETION DATE

TANK 1 CONSTRUCTION ☐ STEEL ☐ NONMETALLIC | **CAPACITY** | **YEAR INSTALLED**

PRODUCT TO BE STORED
☐ GASOLINE W/LEAD ☐ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER _____

TANK STATUS
☐ REPAIRED ☐ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED BY OWNER

TANK 2 CONSTRUCTION ☐ STEEL ☐ NONMETALLIC | **CAPACITY** | **YEAR INSTALLED**

PRODUCT TO BE STORED
☐ GASOLINE W/LEAD ☐ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER _____

TANK STATUS
☐ REPAIRED ☐ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED BY OWNER

TANK 3 CONSTRUCTION ☐ STEEL ☐ NONMETALLIC | **CAPACITY** | **YEAR INSTALLED**

PRODUCT TO BE STORED
☐ GASOLINE W/LEAD ☐ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER _____

TANK STATUS
☐ REPAIRED ☐ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED BY OWNER

TANK 4 CONSTRUCTION ☐ STEEL ☐ NONMETALLIC | **CAPACITY** | **YEAR INSTALLED**

PRODUCT TO BE STORED
☐ GASOLINE W/LEAD ☐ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER _____

TANK STATUS
☐ REPAIRED ☐ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED BY OWNER

IF "RELINED" BOX IS CHECKED, THE TANK PREPARATION AND PRODUCT APPLICATION MUST COMPLY WITH THE SEALANT MANUFACTURER'S SPECIFICATIONS, WHICH MUST BE REGISTERED WITH THE STATE FIRE MARSHAL.

SIGNATURE OF QUALIFIED APPLICATOR	DATE CERTIFICATE SUBMITTED
X	

WHITE - FM HQ AFTER PROJECT IS COMPLETED CANARY - APPLICATOR'S COPY PINK - COMPLETE SEC. 1 AND SUBMIT TO FM HQ BEFORE WORK IS BEGUN

Armor Shield Of Illinois
902 S. VAN BUREN STREET
NEWTON, ILLINOIS 62448
PHONE (618) 783-2019
FAX # (618) 783-3527

FAX TRANSMITTAL

Date: 2-21-96

To: FIRE MARSHAL DIVISION

Attn: MIKE KADRY

From: Scott Lasure

Re: REVISED NOTIFICATION

COMMENTS

MIKE

Please find the Revised notification for the SHELL STATION in Belleview Hts, MI.

We will be using (2) additional USTs at this site.

If you have any questions please give me a call at 618-783-2019

Armor Shield Of Illinois

902 S. VAN BUREN STREET
NEWTON, ILLINOIS 62448
PHONE (618) 783-2019
FAX # (618) 783-3527

FAX TRANSMITTAL

Date: 2-21-96

To: FIRE MARSHAL DIVISION

Attn: MIKE KADRY

From: SCOTT LOCKE

Re: REVISED NOTIFICATION

COMMENTS

MIKE

PLEASE FIND THE REVISED NOTIFICATION FOR THE SHELL STATION IN ROBINSON HILLS, NE.

WE WILL BE LIVING (2) ADDITIONAL USTS AT THIS SITE.

IF YOU HAVE ANY QUESTIONS PLEASE GIVE ME A CALL AT 618-783-2019

REVISED FORM 2/21/96

FM-33 (1/92)
Michigan State Police
STATE FIRE MARSHAL
INCIDENT # 5-93-96

UNDERGROUND TANK RESTORATION

MAIL TO: Michigan Department of State Police, FIRE MARSHAL DIVISION, Hazardous Materials Unit, 7150 Harris Drive, Lansing, MI 48913

AUTHORITY: 1984 PA 423
COMPLIANCE: Required
PENALTY: Misdemeanor

SECTION 1: TANK REPAIR NOTIFICATION

NAME OF APPLICATOR FIRM: Armor Shield of Illinois
DATE OF NOTIFICATION: 2-21-96
ADDRESS: 902 S. Van Buren Vernon, IL 62448
TELEPHONE NO: 618-758-2019
RELINING MATERIAL TO BE USED: 72 300 m
MANUFACTURED BY: Armor shield
INSURANCE CERTIFICATE: ☒ AT STATE FM ☐ ATTACHED
NAME OF FIRM WHERE TANKS ARE LOCATED: SHELL STATION
TELEPHONE NO.: 810-656-0080
ADDRESS: 975 Rochester & Avon Rochester Hills MI 48063
COUNTY: OAKLAND
FACILITY TYPE: SERVICE STATION

REASON FOR RELINING (Check One)	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Preventative Maintenance	☒	☒	☒	
Repair Leaks	☐	☐	☐	

EST. DATE OF EVALUATION: 2-20-96
EST. DATE OF TANK PREPARATION: 2-21-96
EST. DATE OF PRODUCT APPLICATION: 2-21-96
EST. DATE OF LINING TEST: 2-23-96
EST. DATE OF TANK CLOSING: 2-24-96
EST. DATE OVERFILL PROTECTION INSTALLED: N/A
EST. DATE OF REQUIRED TANK TEST: 2-27-96
EST. DATE OF PROJECT COMPLETION: 2-27-96

SECTION 2: CERTIFICATE OF PERFORMANCE

RELINING MATERIAL USED
MANUFACTURED BY
COMPLETION DATE

TANK 1 CONSTRUCTION ☐ STEEL ☐ NONMETALLIC
CAPACITY
YEAR INSTALLED
PRODUCT TO BE STORED ☐ GASOLINE W/LEAD ☐ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER
TANK STATUS ☐ REPAIRED ☐ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED BY OWNER

TANK 2 CONSTRUCTION ☐ STEEL ☐ NONMETALLIC
CAPACITY
YEAR INSTALLED
PRODUCT TO BE STORED ☐ GASOLINE W/LEAD ☐ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER
TANK STATUS ☐ REPAIRED ☐ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED BY OWNER

TANK 3 CONSTRUCTION ☐ STEEL ☐ NONMETALLIC
CAPACITY
YEAR INSTALLED
PRODUCT TO BE STORED ☐ GASOLINE W/LEAD ☐ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER
TANK STATUS ☐ REPAIRED ☐ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED BY OWNER

TANK 4 CONSTRUCTION ☐ STEEL ☐ NONMETALLIC
CAPACITY
YEAR INSTALLED
PRODUCT TO BE STORED ☐ GASOLINE W/LEAD ☐ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER
TANK STATUS ☐ REPAIRED ☐ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED BY OWNER

*IF "RELINED" BOX IS CHECKED, THE TANK PREPARATION AND PRODUCT APPLICATION MUST COMPLY WITH THE SEALANT MANUFACTURER'S SPECIFICATIONS, WHICH IS FIRST REGISTERED WITH THE STATE FIRE MARSHAL.

SIGNATURE OF QUALIFIED APPLICATOR
X
DATE CERTIFICATE SUBMITTED

REVISED FORM 2/21/96 [illegible]

Fm-56 (10/92)
Michigan State Police
STATE FIRE MARSHAL
UNDERGROUND TANK RESTORATION

INCIDENT # 5-93-96

Michigan Department of State Police
FIRE MARSHAL DIVISION
Hazardous Materials Unit
7150 Harris Drive
Lansing, MI 48913

AUTHORITY: 1984 PA 423
COMPLIANCE: Required
PENALTY: Misdemeanor

SECTION 1: TANK REPAIR NOTIFICATION

NAME OF APPLICATOR FIRM: Armor Shield of Illinois		DATE OF NOTIFICATION: 2-21-96
ADDRESS: 902 Swan [illegible] Newton, IL 62449		TELEPHONE NO.: 618-783-2019
RELINING MATERIAL TO BE USED: TL 300 m	MANUFACTURED BY: Armor shield	INSURANCE CERTIFICATE: ☒ AT STATE FM ☐ [illegible]
NAME OF FIRM WHERE TANKS ARE LOCATED: SHELL STATION		TELEPHONE NO: 810-[illegible]-[illegible]
ADDRESS: 975 Rochester & Avon Rochester Hills MI [illegible]		
COUNTY: OAKLAND	FACILITY TYPE: SERVICE STATION	

REASON FOR RELINING (Check One)	Tank No. 1	Tank No. 2	Tank No. 3
Preventative Maintenance	☒	☒	☒
Repair Leaks	☐	☐	☐

EST. DATE OF EVALUATION: 2-20-96	EST. DATE OF TANK PREPARATION: 2-21-96	EST. DATE OF PRO[illegible]: 2-21-96
EST. DATE OF LINING TEST: 2-23-96	EST. DATE OF TANK CLOSING: 2-24-96	EST. DATE OVERFILL PROTECTION: N/A
EST. DATE OF REQUIRED TANK TEST: 2-27-96		EST. DATE OF PROJECT COMPLETION: 2-27-96

SECTION 2: CERTIFICATE OF PERFORMANCE

RELINING MATERIAL USED	MANUFACTURED BY	COMPLETION DATE
TANK 1 CONSTRUCTION ☐ STEEL ☐ NONMETALLIC	CAPACITY	YEAR INSTALLED

PRODUCT TO BE STORED
☐ GASOLINE W/LEAD ☐ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER ________

TANK STATUS
☐ REPAIRED ☐ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED BY

TANK 2 CONSTRUCTION ☐ STEEL ☐ NONMETALLIC	CAPACITY	YEAR INSTALLED

PRODUCT TO BE STORED
☐ GASOLINE W/LEAD ☐ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER ________

TANK STATUS
☐ REPAIRED ☐ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED BY

TANK 3 CONSTRUCTION ☐ STEEL ☐ NONMETALLIC	CAPACITY	YEAR INSTALLED

PRODUCT TO BE STORED
☐ GASOLINE W/LEAD ☐ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER ________

TANK STATUS
☐ REPAIRED ☐ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED BY

TANK 4 CONSTRUCTION ☐ STEEL ☐ NONMETALLIC	CAPACITY	YEAR INSTALLED

PRODUCT TO BE STORED
☐ GASOLINE W/LEAD ☐ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER ________

TANK STATUS
☐ REPAIRED ☐ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED BY

*IF "RELINED" BOX IS CHECKED, THE TANK PREPARATION AND PRODUCT APPLICATOR MUST COMPLY WITH THE SEALANT MANUFACTURER'S SPECIFICATIONS WHICH [illegible] REGISTERED WITH THE STATE FIRE MARSHAL

SIGNATURE OF QUALIFIED APPLICATOR: X	DATE CERTIFICATE SIGNED

Faxed 2-14-96 LD

FM-85 (10/92)
Michigan State Police
STATE FIRE MARSHAL

UNDERGROUND TANK RESTORATION

P.O. Michigan Department of State Police
FIRE MARSHAL DIVISION
Hazardous Materials Unit
7150 Harris Drive
Lansing, MI 48913

AUTHORITY:	1984 PA 423
COMPLIANCE:	Required
PENALTY:	Misdemeanor

SECTION 1: TANK REPAIR NOTIFICATION

NAME OF APPLICATOR FIRM: ARMOR SHIELD OF ILLINOIS
DATE OF NOTIFICATION: 2-13-96
ADDRESS: 902 S VAN BUREN NEWTON, IL 62448
TELEPHONE NO.: 618-783-2017
RELINING MATERIAL TO BE USED: TL 300 M
MANUFACTURED BY: ARMOR SHIELD
INSURANCE CERTIFICATE: ☒ AT STATE FM ☐ [illegible]
NAME OF FIRM WHERE TANKS ARE LOCATED: SHELL STATION
TELEPHONE NO.: PH # 810-652-0080
ADDRESS: 975 ROCHESTER & AVON Rochester Hills, MI 48063
COUNTY: OAKLAND
FACILITY TYPE: SERVICE STATION

REASON FOR RELINING (Check One)	Tank No. 1	Tank No. 2	Tank No. 3
Preventative Maintenance	☒	☐	☐
Repair Leaks	☐	☐	☐

EST. DATE OF EVALUATION: 2-27-96
EST. DATE OF TANK PREPARATION: 2-27-96
EST. DATE OF PRODUCT APPLICATION: 2-29-96
EST. DATE OF LINING TEST: 2-28-96
EST. DATE OF TANK CLOSING: 2-28-96
EST. DATE OVERFILL PROTECTION: N/A
EST. DATE OF REQUIRED TANK TEST: 2-28-96
EST. DATE OF PROJECT COMPLETION: 2-28-96

SECTION 2: CERTIFICATE OF PERFORMANCE

RELINING MATERIAL USED
MANUFACTURED BY
COMPLETION DATE

TANK 1 CONSTRUCTION ☐ STEEL ☐ NONMETALLIC
CAPACITY
YEAR INSTALLED

PRODUCT TO BE STORED ☐ GASOLINE W/LEAD ☐ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER

TANK STATUS ☐ REPAIRED ☐ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED

TANK 2 CONSTRUCTION ☐ STEEL ☐ NONMETALLIC
CAPACITY
YEAR INSTALLED

PRODUCT TO BE STORED ☐ GASOLINE W/LEAD ☐ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER

TANK STATUS ☐ REPAIRED ☐ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED

TANK 3 CONSTRUCTION ☐ STEEL ☐ NONMETALLIC
CAPACITY
YEAR INSTALLED

PRODUCT TO BE STORED ☐ GASOLINE W/LEAD ☐ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER

TANK STATUS ☐ REPAIRED ☐ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED

TANK 4 CONSTRUCTION ☐ STEEL ☐ NONMETALLIC
CAPACITY
YEAR INSTALLED

PRODUCT TO BE STORED ☐ GASOLINE W/LEAD ☐ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER

TANK STATUS ☐ REPAIRED ☐ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED

IF "RELINED" BOX IS CHECKED, THE TANK PREPARATION AND PRODUCT APPLICATION MUST COMPLY WITH THE [illegible] MANUFACTURER'S SPECIFICATIONS, WHICH MUST BE REGISTERED WITH THE STATE FIRE MARSHAL.

SIGNATURE OF QUALIFIED APPLICATOR
X
DATE CERTIFICATE SUBMITTED

Faxed 2-23-96 LS

FM-56 (10/92)
Michigan State Police
STATE FIRE MARSHAL

UNDERGROUND TANK RESTORATION

MAIL TO: Michigan Department of State Police
FIRE MARSHAL DIVISION
Hazardous Materials Unit
7150 Harris Drive
Lansing, MI 48913

AUTHORITY:	1984 PA 423
COMPLIANCE:	Required
PENALTY:	Misdemeanor

SECTION 1: TANK REPAIR NOTIFICATION

NAME OF APPLICATOR FIRM: ARMOR SHIELD OF ILLINOIS		DATE OF NOTIFICATION: 2-13-96
ADDRESS: 902 S VAN BUREN NEWTON, IL 62448		TELEPHONE NO.: 618-783-2019
RELINING MATERIAL TO BE USED: TL 300M	MANUFACTURED BY: ARMOR SHIELD	INSURANCE CERTIFICATE: ☒ AT STATE FM ☐ ATTACHED
NAME OF FIRM WHERE TANKS ARE LOCATED: SHELL STATION		TELEPHONE NO.: PH # 810-656-0080
ADDRESS: 975 ROCHESTER & AVON ROCHESTER HILLS, MI 48063		
COUNTY: OAKLAND	FACILITY TYPE: SERVICE STATION	

REASON FOR RELINING (Check One)	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4
Preventative Maintenance	☒	☐	☐	☐
Repair Leaks	☐	☐	☐	☐

EST. DATE OF EVALUATION: 2-27-96	EST. DATE OF TANK PREPARATION: 2-27-96	EST. DATE OF PRODUCT APPLICATION: 2-28-96
EST. DATE OF LINING TEST: 2-28-96	EST. DATE OF TANK CLOSING: 2-28-96	EST. DATE OVERFILL PROTECTION INSTALLED: N/A
EST. DATE OF REQUIRED TANK TEST: 2-28-96		EST. DATE OF PROJECT COMPLETION: 2-28-96

SECTION 2: CERTIFICATE OF PERFORMANCE

RELINING MATERIAL USED	MANUFACTURED BY	COMPLETION DATE
TANK 1 CONSTRUCTION ☐ STEEL ☐ NONMETALLIC	CAPACITY	YEAR INSTALLED

PRODUCT TO BE STORED
☐ GASOLINE W/LEAD ☐ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER _____

TANK STATUS
☐ REPAIRED ☐ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED BY OWNER

TANK 2 CONSTRUCTION ☐ STEEL ☐ NONMETALLIC	CAPACITY	YEAR INSTALLED

PRODUCT TO BE STORED
☐ GASOLINE W/LEAD ☐ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER _____

TANK STATUS
☐ REPAIRED ☐ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED BY OWNER

TANK 3 CONSTRUCTION ☐ STEEL ☐ NONMETALLIC	CAPACITY	YEAR INSTALLED

PRODUCT TO BE STORED
☐ GASOLINE W/LEAD ☐ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER _____

TANK STATUS
☐ REPAIRED ☐ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED BY OWNER

TANK 4 CONSTRUCTION ☐ STEEL ☐ NONMETALLIC	CAPACITY	YEAR INSTALLED

PRODUCT TO BE STORED
☐ GASOLINE W/LEAD ☐ GASOLINE W/O LEAD ☐ GASOLINE W/ALCOHOL ☐ FUEL OIL/DIESEL ☐ OTHER _____

TANK STATUS
☐ REPAIRED ☐ RELINED* ☐ ABANDONED ☐ REMOVED ☐ OVERFILL PROTECTION INSTALLED ☐ WORK CANCELLED BY OWNER

*IF "RELINED" BOX IS CHECKED, THE TANK PREPARATION AND PRODUCT APPLICATION MUST COMPLY WITH THE SEALANT MANUFACTURER'S SPECIFICATIONS, WHICH MUST BE REGISTERED WITH THE STATE FIRE MARSHAL.

SIGNATURE OF QUALIFIED APPLICATOR X	DATE CERTIFICATE SUBMITTED

WHITE - FM HQ AFTER PROJECT IS COMPLETED CANARY - APPLICATOR'S COPY PINK - COMPLETE SEC. 1 AND SUBMIT TO FM HQ BEFORE WORK IS BEGUN

LICENSING AND REGULATORY AFFAIRS
CUSTOMER DRIVEN. BUSINESS MINDED.

STATE OF MICHIGAN

LICENSING AND REGULATORY AFFAIRS
BUREAU OF FIRE SERVICES STORAGE TANK DIVISION

FACILITY INSPECTION REPORT

Owner Name & Address:

Safeway Acquisitions Group LLC
8700 Brandt
Dearborn, MI 48126

Location of Tanks:

Express 100 Inc
975 S Rochester Rd
Rochester, MI 48037
County - Oakland
Facility ID - 00009055

ATTENTION: Steve Saad

A Reinspection was conducted on September 13, 2016, for the above-referenced facility for compliance with Part 211, Underground Storage Tank Regulations, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the Michigan Underground Storage Tank Rules (MUSTR), 2008 AACS R 29.2101 et seq.; and the applicable sections of the rules for the Storage and Handling of Flammable and Combustible Liquids, 2014 AACS R 29.5601 et seq. The inspection showed that the tank(s) was tagged.

1 Interstitial or monthly monitoring shall be conducted in accordance with Section 280.44 (C).
Section 280.44(C)

Special Attention : NOTE: Tanks installed after July 2008 where required to be double-wall and interstitial monitored.

The existing compartment (diesel/premium) tank has been RED TAGGED for failure to modify existing system so the double-wall tank and double-wall piping is interstitially monitored as required.

Inspector requested and received PASSING line leak detectors, pressure fuel lines, and impact valves test results for the diesel & gasoline systems performed on 3/12/16 by Daniel Jaber.

The inspection and violations (if any) were discussed with Khalil Saad at the time of the inspection.

If you have additional questions concerning this matter, please contact me.

Jerry Arnold

9/13/16

Date

Jerry Arnold
Hazardous Materials Storage Inspector
Region 1
PO Box 30033
Lansing, MI 48909
Phone: (734) 891-1523
Fax: (517) 332-1428
Email: arnoldj@michigan.gov

0009055

Konadu, Stella (LARA)

To: Arnold, Jerry (LARA)
Subject: RE: FID#9055 - 975 S. Rochester Rd., Rochester, MI

ENTERED (SMK)
SEP 20 2016

Hello,

I have updated tank numbers 5 and 6 piping and tank information for facility (0009055).

Thanks
Stella

From: Arnold, Jerry (LARA)
Sent: Tuesday, September 20, 2016 11:17 AM
To: Konadu, Stella (LARA) <KONADUS@michigan.gov>
Subject: FID#9055 - 975 S. Rochester Rd., Rochester, MI

Stella please make the following changes to tank #5

Tank release detection	ONLY	Automatic tank gauging & inventory control
Piping material	CHANGE	single-wall fiberglass
Tank Construction	CHANGE	Fiberglass

Please make the following changes to tank #6:

Tank release detection	ADD	Inventory Control
Piping Material	CHANGE	Single-wall fiberglass & double-wall flexible
Tank Construction	ADD	Composite

MAR 0 3 2015

Department of Licensing and Regulatory Affairs, Bureau of Fire Services, Storage Tank Division

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 tank for which notification is not given or for which false information is submitted.

☐ NEW REGISTRATION

☒ AMENDED INFORMATION (for Registered USTs Only)

If sending payment and form, mail to: LARA, Cashiers Office UST/AST, P.O. Box 30033, Lansing, MI 48909

If sending payment and form OVERNIGHT: LARA, Cashiers Office UST/AST, 525 West Allegan, Lansing, MI 48909

If sending the FORM ONLY, mail to: LARA, Bureau of Fire Services, Storage Tank Division, P.O. Box 30033, Lansing, MI 48909

FACILITY ID NUMBER (If known): 00009055

NUMBER OF TANKS AT FACILITY: 2

NUMBER OF CONTINUATION SHEETS ATTACHED: 1

I. OWNERSHIP OF TANKS

IF THIS IS A NEW OWNER'S ADDRESS, PLEASE CHECK ☒

OWNER NAME (Corporation/Individual, etc.): KHALIL SAAD Rochester

MAILING ADDRESS: 975 S. ROSHESTER

CITY: ROCHESTER HILLS | STATE: MI | ZIP: 48307

COUNTRY (Please Specify): ☐ USA ☐ OTHER

AREA CODE & PHONE NUMBER: (248) 601-0050

TAX PAYER ID OR SOCIAL SECURITY NU: [redacted]

LATITUDE AND LONGITUDE of facility (If kn

LATITUDE (North):

II. LOCATION OF TANKS

IF INFORMATION IS THE SAME AS SECTION I, PLEASE CHECK ☒

FACILITY NAME OR SITE IDENTIFIER: K&B minimart

STREET ADDRESS (P.O. Box Not Acceptable):

CITY | STATE: MI | ZIP

COUNTY: Oakland

AREA CODE & PHONE NUMBER

RECEIVED
FEB 27 2015
BUREAU OF FIRE SERVICES

III. TYPE OF OWNER

☐ FEDERAL ☒ COMMERCIAL

☐ STATE GOVERNMENT ☐ PRIVATE

☐ LOCAL GOVERNMENT ARE TANKS LOCATED ON LAND WITHIN A RESERVATION? ☐ YES ☐ NO

IF TANKS ARE LOCATED WITHIN A RESERVATION, DOES A NATIVE AMERICAN TRIBE OWN TANKS? ☐ YES ☐ NO

IF TANKS ARE OWNED BY A TRIBE, NAME OF TRIBE:

IV. TYPE OF FACILITY

☒ PUBLIC GAS STATION
☐ PRIVATE GAS STATION
☐ MARINE GAS STATION
☐ PETROLEUM DISTRIBUTOR
☐ AIRLINE AND/OR AIRCRAFT OWNER
☐ AUTO DEALERSHIP
☐ RAILROAD
☐ LOCAL GOVERNMENT
☐ STATE GOVERNMENT
☐ FEDERAL/NON-MILITARY
☐ FEDERAL-MILITARY
☐ COMMERCIAL
☐ INDUSTRIAL
☐ HOSPITAL
☐ CONTRACTOR
☐ TRUCKING/TRANSPORT
☐ UTILITIES
☐ RESIDENTIAL
☐ FARM
☐ OTHER (Explain)

V. CONTACT PERSON

Name	Job Title	Area Code & Phone No.
KHALIL SAAD	President	(248) 601-0050
Class A operator: Name: Moray Jansen VanVuren	Company: D.W. Larson	Area Code & Phone No.: 248-549-3610
Class B operator: Name: Ryan Clontz	Company: D.W. Larson	Area Code & Phone No.: 248-549-3610

VI. 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	SIGNATURE	DATE
Khalil Saad Khalil Saad	Khalil Saad	2/16/2015

BFS-3821 (Rev 9/14)

COMMENTS AND/OR CLARIFICATIONS:

amended for purpose of A & B Operator designation only...no other changes have been made

DEQ MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY – REMEDIATION DIVISION

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 tank for which notification is not given or for which false information is submitted.

☐ NEW REGISTRATION

☑ AMENDED INFORMATION (for Registered USTs Only)

If sending payment and form, mail to: Cashiers Office, DEQ, P.O. Box 30657, Lansing, MI 48909-8157

If sending payment and form OVERNIGHT, mail to: Cashiers Office, DEQ, 525 West Allegan, 6th Floor South, Lansing, MI 48933

If sending FORM ONLY, mail to: Storage Tanks & Contacts Unit, Remediation Division, DEQ, P.O. Box 30426, Lansing, MI 48909-7926

JAN 23 2013

FACILITY ID NUMBER (if known): 9055

NUMBER OF TANKS AT FACILITY: 2

NUMBER OF CONTINUATION SHEETS ATTACHED: Ø

I. OWNERSHIP OF TANKS

IF THIS IS A NEW OWNER'S ADDRESS, PLEASE CHECK ☐

OWNER NAME (Corporation/Individual, etc.): L & B mini Mart

MAILING ADDRESS: 975 Rochester

CITY: Rochester hills | STATE: MI | ZIP: 48307

COUNTRY (Please Specify): ☑ USA ☐ OTHER

AREA CODE & PHONE NUMBER: [redacted]

II. LOCATION OF TANKS

IF INFORMATION IS THE SAME AS SECTION I, PLEASE CHECK ☐

FACILITY NAME OR SITE IDENTIFIER:

STREET ADDRESS (P.O. Box Not Acceptable):

CITY: | STATE: MI | ZIP:

COUNTY:

AREA CODE & PHONE NUMBER: ( )

[redacted]

LONGITUDE (West):

NOV 05 2013

III. TYPE OF OWNER

☐ FEDERAL ☑ COMMERCIAL

☐ STATE GOVERNMENT ☐ PRIVATE

☐ LOCAL GOVERNMENT ARE TANKS LOCATED ON LAND WITHIN A RESERVATION? ☐ YES ☐ NO

IF TANKS ARE LOCATED WITHIN A RESERVATION, DOES A NATIVE AMERICAN TRIBE OWN TANKS? ☐ YES ☐ NO

IF TANKS ARE OWNED BY A TRIBE, NAME OF TRIBE:

IV. TYPE OF FACILITY

☑ PUBLIC GAS STATION	☐ LOCAL GOVERNMENT	☐ CONTRACTOR
☐ PRIVATE GAS STATION	☐ STATE GOVERNMENT	☐ TRUCKING/TRANSPORT
☐ MARINE GAS STATION	☐ FEDERAL/NON-MILITARY	☐ UTILITIES
☐ PETROLEUM DISTRIBUTOR	☐ FEDERAL-MILITARY	☐ RESIDENTIAL
☐ AIRLINE AND/OR AIRCRAFT OWNER	☐ COMMERCIAL	☐ FARM
☐ AUTO DEALERSHIP	☐ INDUSTRIAL	☐ OTHER (Explain)
☐ RAILROAD	☐ HOSPITAL	

V. CONTACT PERSON

Name: Mohamad Ajrouche	Job Title:	Area Code & Phone No.: 313
Class A operator Name: Mohamad Ajrouche	Company:	Area Code & Phone No.: 313
Class B operator Name: Mohamad Ajrouche	Company:	Area Code & Phone No.: 313
Alternate Class B operator (if applicable):	Company:	Area Code & Phone No.:

VI. 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	SIGNATURE	DATE
Safeway Acquisitions	Younes Beydoun	10-10-2013

EQP3021 (Rev 4/12)

LARA
LICENSING AND REGULATORY AFFAIRS
CUSTOMER DRIVEN, BUSINESS MINDED

STATE OF MICHIGAN

LICENSING AND REGULATORY AFFAIRS
BUREAU OF FIRE SERVICES STORAGE TANK DIVISION

FACILITY INSPECTION REPORT

Owner Name & Address:

Safeway Acquisitions Group LLC
8700 Brandt
Dearborn, MI 48126

Location of Tanks:

K & B Mini Mart Inc.
975 S Rochester Rd
Rochester, MI 48037
County - Oakland
Facility ID - 00009055

ATTENTION: Khalil Saad

A Reinspection was conducted on June 18, 2013, for the above-referenced facility for compliance with Part 211, Underground Storage Tank Regulations, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the Michigan Underground Storage Tank Rules (MUSTR), 2008 AACS R 29.2101 et seq.; and the applicable sections of the rules for the Storage and Handling of Flammable and Combustible Liquids, 2003 AACS R 29.5101 et seq. The inspection showed that the facility is temporarily approved.

1 Every facility having 1 or more UST systems subject to MUSTR shall have a class A and class B operator.
UST 280.13

Special Attention : Provide this office with documentation showing that the new operator training requirement has been met.

2 Dispenser shall be in clear view of attendant and be able to communicate.
UST 280.10(J) (FL/CL Part3, Section 9.4.5)

Special Attention : Provide a working intercom system so the Attendant can communicate with Customers.

Inspector was shown copy of Buck's oil invoice#50170 dated 6/21/13 for 250 gallons of wastewater/gas mixture.

Inspector provide facility with a invoice in the amount of $600 for past tank registration fees ($100/yr/tank) in regards to the 8,000 gallon DW PermaTank compartment (diesel/premium) UST believe to have been installed in August 2008.

Inspector received PASSING line leak detectors, pressure fuel lines, and impact valves test results on the diesel & gasoline systems performed on 6/16/13 by Daniel Jaber w/Dan's Service.

Inspector received copy of tank monitor printout showing PASS test results for (3) tanks on 6/16/13.

If you have additional questions concerning this matter, please contact me.

6/24/13

Date

Jerry Arnold
Hazardous Materials Storage Inspector
SE Michigan District Office
27700 Donald Court
Warren, MI 48092-2793
Phone: (586) 753-3848
Fax: (586) 753-3831
Email: arnoldj@michigan.gov

LICENSING AND REGULATORY AFFAIRS
CUSTOMER DRIVEN. BUSINESS MINDED.

STATE OF MICHIGAN

LICENSING AND REGULATORY AFFAIRS
BUREAU OF FIRE SERVICES STORAGE TANK DIVISION

FACILITY INSPECTION REPORT

Owner Name & Address:

Safeway Acquisitions Group LLC
8700 Brandt
Dearborn, MI 48126

Location of Tanks:

Express 100 Inc
975 S Rochester Rd
Rochester, MI 48037
County - Oakland
Facility ID - 00009055

ATTENTION: Khalil Saad

A Reinspection was conducted on August 9, 2013, for the above-referenced facility for compliance with Part 211, Underground Storage Tank Regulations, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the Michigan Underground Storage Tank Rules (MUSTR), 2008 AACS R 29.2101 et seq.; and the applicable sections of the rules for the Storage and Handling of Flammable and Combustible Liquids, 2003 AACS R 29.5101 et seq. The inspection showed that the facility is disapproved.

1 Every facility having 1 or more UST systems subject to MUSTR shall have a class A and class B operator.
UST 280.13

Special Attention : Provide this office with documentation showing that the new operator training requirement has been met.

2 Dispenser shall be in clear view of attendant and be able to communicate.
UST 280.10(J) (FL/CL Part3, Section 9.4.5)

Special Attention : Provide a working intercom system so the Attendant can communicate with Customers.

Inspector provide facility with a invoice in the amount of $600 for past tank registration fees ($100/yr/tank) in regards to the 8,000 gallon DW PermaTank compartment (diesel/premium) UST believe to have been installed in August 2008.

Documentation shall be furnished to the district office identified below verifying that the violation(s), cited in this inspection report have been corrected. The documentation shall be provided by September 16, 2013. If the cited violation(s) are not corrected and/or certification of compliance is not provided by the date specified, a reinspection will be conducted. The owner or operator of this facility will be subject to civil and criminal provisions pursuant to Part 211 of Act 451, including and not limited to placement of tags to the tank(s) prohibiting delivery of product if the stated violations have not been corrected.

If you have additional questions concerning this matter, please contact me.

8/12/13

Date

Jerry Arnold
Hazardous Materials Storage Inspector
SE Michigan District Office
27700 Donald Court
Warren, MI 48092-2793
Phone: (586) 753-3848
Fax: (586) 753-3831
Email: arnoldj@michigan.gov

MICHIGAN DEPARTMENT OF AGRICULTURE (MDA) RECORDS

GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF AGRICULTURE
AND RURAL DEVELOPMENT

GARY MCDOWELL
DIRECTOR

August 16, 2019

PM Environmental
Attn: Josephine Hamilton
4080 West Eleven Mile Road
Berkley, Michigan 48072

Dear Ms. Hamilton:

Your request for records dated August 14, 2019 under the Freedom of Information Act was received in our office on August 14, 2019. You requested LMD Test and Inspection reports for USTs, ASTs or pump islands for the following site: 975 South Rochester Road, Rochester Hills.

Your request is granted and enclosed are the existing, non-exempt records responsive to your request.

Even though the Freedom of Information Act permits us to charge you for our costs in copying and mailing this information, we are sending it free of charge due to the limited number of pages.

For your information, the Department's Freedom of Information Act written summary, procedures, and guidelines can be found at www.michigan.gov/mdard-foia.

Sincerely

Debby Cheresko

Debby Cheresko
Associate FOIA Coordinator

MICHIGAN DEPT OF AGRICULTURE & RURAL DEVELOPMENT
LABORATORY DIVISION
WEIGHTS AND MEASURES PROGRAM | MOTOR FUEL QUALITY PROGRAM
(517) 655 - 8202
michigan.gov/wminfo | michigan.gov/mfq

Device Grid Test Mailing Summary

Insp Date: 4/16/2019 **Business ID:** 37462
Business: K & B MINI MART INC
975 S ROCHESTER RD

ROCHESTER, MI 48307

Inspection: SM002073
Store ID:
Phone: 248-601-0050
Inspector: 019 Sean McGuire
Reason: FIELD AUDIT

Class	Actv	Sea	Not	App	Not	C-R	C-X	Pos
Liquid Measuring Device	20	20						
Pump Business	1			1				
UST	3			3				

Make	Model	Subtype	Serial #		Location	Seal #	Failed Attribs	Test	Error	Results	Prod Used	Notes
Station	N/a		37462			N/A				Approved	0.000	
WAYNE	1/V590D4/GQ	16	37462P1	Regular		IBB		Normal Flow	3	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P1	Midgrade89		N/A		Slow Flow	4	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P1	Premium93		IBB		Normal Flow	4	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P2	Regular		OWL		Normal Flow	0	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P2	Midgrade89		N/A		Slow Flow	0	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P2	Premium93		OWL		Normal Flow	-1	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P3	Regular		OWL		Normal Flow	0	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P3	Midgrade89		N/A		Slow Flow	0	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P3	Premium93		OWL		Normal Flow	-1	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P4	Regular		OWL		Normal Flow	4	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P4	Midgrade89		N/A		Slow Flow	3	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P4	Premium93		OWL		Normal Flow	0	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P5	Regular		OWL		Normal Flow	2	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P5	Midgrade89		N/A		Slow Flow	4	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P5	Premium93		OWL		Normal Flow	2	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P6	Regular		OWL		Normal Flow	2	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P6	Midgrade89		N/A		Slow Flow	2	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P6	Premium93		OWL		Normal Flow	1	Sealed	5.000	
WAYNE	1/V590D4/GQ	10	37462P7	Diesel		IBB		Normal Flow	2	Sealed	5.000	
WAYNE	1/V590D4/GQ	10	37462P8	Diesel		IBB		Normal Flow	1	Sealed	5.000	

Inspector

Acknowledged Receipt : STEVE SAAD/ MANAGER

Device Grid Test Mailing Summary

Make	Model	Subtype	Serial #		Location	Seal #	Failed Attribs	Test	Error	Results	Prod Used	Notes
Tank	N/A		37462REG			N/A				Approved	0.000	
Tank	N/A		37462PRE			N/A				Approved	0.000	
Tank	NA		37462DIESEL			N/A				Approved	0.000	

Device Product Used: 100. **Insp Product Used:** . **Tot Product Used:** 100.

Grade	Prod Used
Diesel	10.00
Midgrade89	30.00
Premium93	30.00
Regular	30.00

Mailing Address: K & B MINI MART INC
975 S ROCHESTER RD
ROCHESTER, MI 48307

Notes:
Document review conducted. All fuel returned to underground storage tanks. Card readers visually inspected. Establishment is using pressure sensitive tape to secure dispensers.

Establishment uses Oscar W. Larson and IBB Petroleum Services for repairs.

IMPORTANT: INCORRECT equipment violations must be corrected within 5 days

Inspector

Acknowledged Receipt : STEVE SAAD/ MANAGER

MICHIGAN DEPT OF AGRICULTURE & RURAL DEVELOPMENT
LABORATORY DIVISION
WEIGHTS AND MEASURES PROGRAM | MOTOR FUEL QUALITY PROGRAM
(517) 655 - 8202
michigan.gov/wminfo | michigan.gov/mfq

Device Grid Test Mailing Summary

Insp Date: 5/22/2017 **Business ID:** 37462
Business: K & B MINI MART INC
975 S ROCHESTER RD

ROCHESTER, MI 48307

Inspection: DN001504
Store ID:
Phone: 248-601-0050
Inspector: 155 DIANNE NAGGAR
Reason: FIELD AUDIT

Class	Actv	Sea	Not	App	Not	C-R	C-X	Pos
Liquid Measuring Device	20	20						
Pump Business	1			1				
UST	3			3				

Make	Model	Subtype	Serial #		Location	Seal #	Failed Attribs	Test	Error	Results	Prod Used	Notes
Station	N/a		37462			NA				Approved	0.000	
WAYNE	1/V590D4/GQ	16	37462P1	Regular		OWL		Normal Flow	0	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P1	Midgrade89		NA		Slow Flow	2	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P1	Premium93		OWL		Normal Flow	5	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P2	Regular		OWL		Normal Flow	0	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P2	Midgrade89		NA		Slow Flow	0	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P2	Premium93		OWL		Normal Flow	0	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P3	Regular		OWL		Normal Flow	0	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P3	Midgrade89		NA		Slow Flow	3	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P3	Premium93		OWL		Normal Flow	0	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P4	Regular		OWL		Normal Flow	4	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P4	Midgrade89		NA		Slow Flow	3	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P4	Premium93		OWL		Normal Flow	0	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P5	Regular		OWL		Normal Flow	4	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P5	Midgrade89		NA		Slow Flow	4	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P5	Premium93		OWL		Normal Flow	4	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P6	Regular		OWL		Normal Flow	3	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P6	Midgrade89		NA		Slow Flow	3	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P6	Premium93		OWL		Normal Flow	2	Sealed	5.000	
WAYNE	1/V590D4/GQ	10	37462P7	Diesel		OWL		Normal Flow	3	Sealed	5.000	
WAYNE	1/V590D4/GQ	10	37462P8	Diesel		OWL		Normal Flow	3	Sealed	5.000	

Inspector

Acknowledged Receipt : Mohamed Saad

Device Grid Test Mailing Summary

Make	Model	Subtype	Serial #		Location	Seal #	Failed Attribs	Test	Error	Results	Prod Used	Notes
Tank	N/A		37462REG			NA				Approved	0.000	
Tank	N/A		37462PRE			NA				Approved	0.000	
Tank	NA		37462DIESEL			NA				Approved	0.000	

Device Product Used: 100. **Insp Product Used:** . **Tot Product Used:** 100.

Grade	Prod Used
Diesel	10.00
Midgrade89	30.00
Premium93	30.00
Regular	30.00

Mailing Address: K & B MINI MART INC
975 S ROCHESTER RD
ROCHESTER, MI 48307

Notes:
FIELD AUDIT.
Performed a weights and measure test on all pumps 1 through 8. All results were positive and all pumps are approved.
All dispensed gas returned to appropriate underground storage tanks. Repair service is O.W.Larson.
Card reader system visually inspected for pumps 1 through pump 8.

IMPORTANT: INCORRECT equipment violations must be corrected within 5 days

Inspector

Acknowledged Receipt : Mohamed Saad

MICHIGAN DEPT OF AGRICULTURE & RURAL DEVELOPMENT
LABORATORY DIVISION
WEIGHTS AND MEASURES PROGRAM | MOTOR FUEL QUALITY PROGRAM
(517) 655 - 8202
michigan.gov/wminfo | michigan.gov/mfq

Device Grid Test Mailing Summary

Insp Date: 9/16/2014 **Business ID:** 37462
Business: K & B MINI MART INC
975 S ROCHESTER RD

ROCHESTER, MI 48307

Inspection: JW000706
Store ID:
Phone: 248-601-0050
Inspector: 016 John Willer
Reason: FIELD AUDIT

Class	Actv	Sea	Not	App	Not	C-R	C-X	Pos
Liquid Measuring Device	19	19						
Pump Business	1			1				
UST	3			3				

Make	Model	Subtype	Serial #		Location	Seal #	Failed Attribs	Test	Error	Results	Prod Used	Notes
Station	N/a		37462			NA				Approved	0.000	
WAYNE	1/V590D4/GQ	16	37462P1	Regular		OWL		Normal Flow	1	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P1	Midgrade89		NA		Slow Flow	3	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P1	Premium93		OWL		Normal Flow Normal Flow	6 5	Sealed	10.000	
WAYNE	1/V590D4/GQ	16	37462P2	Regular		OWL		Normal Flow	1	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P2	Midgrade89		NA		Slow Flow	1	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P2	Premium93		OWL		Normal Flow	2	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P3	Regular		OWL		Normal Flow	-1	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P3	Midgrade89		NA		Slow Flow	0	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P3	Premium93		OWL		Normal Flow	3	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P4	Regular		OWL		Normal Flow	3	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P4	Midgrade89		NA		Slow Flow	4	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P4	Premium93		OWL		Normal Flow	0	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P5	Regular		OWL		Normal Flow	3	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P5	Midgrade89		NA		Slow Flow	5	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P5	Premium93		OWL		Normal Flow	5	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P6	Regular		OWL		Normal Flow	3	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P6	Midgrade89		NA		Slow Flow	4	Sealed	5.000	
WAYNE	1/V590D4/GQ	16	37462P6	Premium93		OWL		Normal Flow	5	Sealed	5.000	
WAYNE	1/V590D4/GQ	10	37462P7	Diesel		OWL		Normal Flow	2	Sealed	5.000	

Inspector

Acknowledged Receipt : Mohammed Saad

Device Grid Test Mailing Summary

Make	Model	Subtype	Serial #		Location	Seal #	Failed Attribs	Test	Error	Results	Prod Used	Notes
Tank	N/A		37462REG			NA				Approved	0.000	
Tank	N/A		37462PRE			NA				Approved	0.000	
Tank	NA		37462DIESEL			NA				Approved	0.000	

Device Product Used: 100. **Insp Product Used:** . **Tot Product Used:** 100.

Grade	Prod Used
Diesel	5.00
Midgrade89	30.00
Premium93	35.00
Regular	30.00

Mailing Address: K & B MINI MART INC
975 S ROCHESTER RD
ROCHESTER, MI 48307

Notes:
Document review conducted. All fuels were returned to underground storage tanks.

Pump #08 Diesel was bagged out of service prior to arrival. The interior of the dispenser was checked for seals and leaks.

Location uses O.W.Larson and Sun93 for service work. No service company paperwork on location for review.

IMPORTANT: INCORRECT equipment violations must be corrected within 5 days

Inspector

Acknowledged Receipt : Mohammed Saad

Appendix C

PM ENVIRONMENTAL Environmental & Engineering Services

PREVIOUS SITE INVESTIGATION

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY - UNDERGROUND STORAGE TANK DIVISION

DEQ

LEAKING UNDERGROUND STORAGE TANK
FINAL ASSESSMENT 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 a 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: Shell Service Station	FACILITY ID NUMBER: 0-009055
ADDRESS: 975 Rochester Road, Rochester, Michigan COUNTY: Oakland	MERA SITE ID NUMBER:
DATE(S) RELEASE DISCOVERED: 4/8/96 (waste oil) 4/24/96 (gasoline)	CONFIRMED RELEASE NUMBER(S): C-214-96 (waste oil) C-252-96 (gasoline)
O/O NAME: Shell Oil Products Company	MUSTFA CLAIM NUMBER: NA
O/O ADDRESS: 17370 Laurel Park Drive N., Suite 200, Livonia, MI 48152	
CONTACT PERSON: Ms. Angela Porter	PHONE NUMBER: (313) 953-4300

ANSWER ALL QUESTIONS (DO NOT LEAVE BLANKS):

1. Has the UST been emptied? ☒ Yes (waste oil) ☒ No (gasoline)
(If no, explain why): Gasoline release was from the steel gasoline product lines which were removed and replaced with fiberglass lines; therefore, the gasoline USTs were not emptied in response to the release.

2. 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:

3. Have vapors been identified in any confined spaces (basement, sewers)? ☐ YES ☒ NO

4. State the number of homes where drinking water is or was affected as a result of a release from this facility: None known

5. Estimated distance and direction from point of release to nearest:

a. Private well: 150 feet south b. Municipal well: >0.5 mile c. Surface water/wetland: >0.5 mile

6. Since last report: a. cubic yards of soil remediated: 0 b. gallons of groundwater remediated: 0

7. Totals to date: a. cubic yards of soil remediated: 40 b. gallons of groundwater remediated: 0

8. 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 April 8, 1997.
(date submitted-*REQUIRED*)

Andrew J. Foerg 4-8-97
CP Original Signature - Required Date

Darryl D. Barricklow
PRINT QC Project Manager's Name

Andrew J. Foerg, P.G.
PRINT CP's Name

EnecoTech Midwest, Inc.
Consultant

39255 Country Club Drive, Suite B40, Farmington Hills, MI 48331 (810) 489-0809 (810) 489-4184
Address Phone Number Fax Number

PLEASE RETURN THIS COMPLETED REPORT AND ASSOCIATED ATTACHMENTS TO THE APPROPRIATE USTD DISTRICT OFFICE LISTED ON THE BACK OF THIS PAGE.

R:\DOCS\SHELL\810-075\FINALRPT.DOC

UNDERGROUND STORAGE TANK DIVISION OFFICES AND LOCATIONS

Determine in which county the UST release occurred. Return all completed forms and associated reports to the USTD office listed next to that county in the following table. Addresses for the USTD offices are listed below.

COUNTY	USTD OFFICE	COUNTY	USTD OFFICE	COUNTY	USTD OFFICE	COUNTY	USTD OFFICE
Alcona	Grayling	Dickinson	Marquette	Lake	Grayling	Oceana	Grand Rapids
Alger	Marquette	Eaton	Shiawassee	Lapeer	Shiawassee	Ogemaw	Grayling
Allegan	Plainwell	Emmet	Grayling	Leelanau	Grayling	Ontonagon	Marquette
Alpena	Grayling	Genesee	Shiawassee	Lenawee	Jackson	Osceola	Grayling
Antrim	Grayling	Gladwin	Grayling	Livingston	Shiawassee	Oscoda	Grayling
Arenac	Grayling	Gogebic	Marquette	Luce	Marquette	Otsego	Grayling
Baraga	Marquette	Grand Traverse	Grayling	Mackinac	Marquette	Ottawa	Grand Rapids
Barry	Plainwell	Gratiot	Shiawassee	Macomb	SE Michigan	Presque Isle	Grayling
Bay	Saginaw-Bay	Hillsdale	Jackson	Manistee	Grayling	Roscommon	Grayling
Benzie	Grayling	Houghton	Marquette	Marquette	Marquette	Saginaw	Saginaw-Bay
Berrien	Plainwell	Huron	Saginaw-Bay	Mason	Grayling	Sanilac	Saginaw-Bay
Branch	Jackson	Ingham	Shiawassee	Mecosta	Grand Rapids	Schoolcraft	Marquette
Calhoun	Jackson	Ionia	Grand Rapids	Menominee	Marquette	Shiawassee	Shiawassee
Cass	Plainwell	Iosco	Grayling	Midland	Saginaw-Bay	St Clair	SE Michigan
Charlevoix	Grayling	Iron	Marquette	Missaukee	Grayling	St Joseph	Plainwell
Cheboygan	Grayling	Isabella	Saginaw-Bay	Monroe	SE Michigan	Tuscola	Saginaw-Bay
Chippewa	Marquette	Jackson	Jackson	Montcalm	Grand Rapids	Van Buren	Plainwell
Clare	Grayling	Kalamazoo	Plainwell	Montmorency	Grayling	Washtenaw	Jackson
Clinton	Shiawassee	Kalkaska	Grayling	Muskegon	Grand Rapids	Wayne	SE Michigan
Crawford	Grayling	Kent	Grand Rapids	Newaygo	Grand Rapids	Wexford	Grayling
Delta	Marquette	Keweenaw	Marquette	Oakland	SE Michigan		

CADILLAC OFFICE
ROUTE #1 8015 MACKINAW TRAIL
CADILLAC MI 49601

616-775-9727 (PHONE)
616-775-9671 (FAX)

JACKSON OFFICE
301 E LOUIS GLICK HIGHWAY
JACKSON MI 49201

517-780-7900 (PHONE)
517-780-7855 (FAX)

SAGINAW BAY OFFICE
503 N EUCLID AVE SUITE 9
BAY CITY MI 48706

517-684-9141 (PHONE)
517-684-9799 (FAX)

GAYLORD OFFICE
P0 BOX 667
GAYLORD MI 49735

517-732-3541 (PHONE)
517-732-0794 (FAX)

MARQUETTE OFFICE
1990 US 41 SOUTH
MARQUETTE MI 49855

906-228-6561 (PHONE)
906-228-5245 (FAX)

SHIAWASSEE OFFICE
10650 BENNETT DR
MORRICE MI 48857-9792

517-625-4600 (PHONE)
517-625-5000 (FAX)

GRAND RAPIDS OFFICE
350 OTTAWA ST NW
GRAND RAPIDS MI 49503

616-456-5071 (PHONE)
616-456-1239 (FAX)

PLAINWELL OFFICE
1342 SR-89 SUITE B
PLAINWELL MI 49080-1915

616-692-2120 (PHONE)
616-692-3050 (FAX)

SE MICHIGAN OFFICE
38980 SEVEN MILE RD
LIVONIA MI 48152

313-953-0241 (PHONE)
313-953-0243 (FAX)

GRAYLING OFFICE
1955 NORTH I-75 BL
GRAYLING MI 49738

517-348-6371 (PHONE)
517-348-8825 (FAX)

TABLE OF CONTENTS

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(continued)

LIST OF ATTACHMENTS

(Include as Required and Check Box if Attached)
Attachments 1, 2, 6-12, 16-18, and 22-28 are to be submitted if applicable.
Attachments 3-5, 13-15, and 19-21 are found in the back of this document and should be completed and submitted when necessary.

ATTACHMENT NUMBER		DESCRIPTION
1	☐	Site Map Showing Extent of Remaining Free Product
2	☐	Free Product Recovery System Schematic
3	☒	Field Screening Results Table for Soils
4	☒	Laboratory Results Table for Soils
5	☒	Tier I RBSL / Tier II or Tier III SSTL Comparison Table for Soils
6	☒	Site Map Showing Soil Sampling Locations, Maximum Contaminant Concentrations, and Sampling Depths
7	☐	Site Map(s) Showing Vertical and Horizontal Distribution of Contaminants in Soil
8	☒	Cross Sections
9	☒	Soil Boring Logs
10	☒	Well Construction Diagrams
11	☒	Groundwater Flow Map Showing Water Level Measurement Locations
12	☐	Description of Hydrogeologic Factors That Could Influence Groundwater Flow
13	☐	Field Screening Results Table for Groundwater
14	☒	Laboratory Results Table for Groundwater
15	☒	Tier I RBSL / Tier II or Tier III SSTL Comparison Table for Groundwater
16	☒	Site Map Showing Groundwater Sampling Locations, Maximum Contaminant Concentrations, and Location of Contaminant Plume
17	☐	Cross Sections
18	☐	Presentation of Time Series Groundwater Results
19	☐	Field Screening Results Tables for Other Media
20	☐	Laboratory Results Tables for Other Media
21	☐	Tier I RBSL / Tier II or Tier III SSTL Comparison Tables for Other Media
22	☐	Site Map Showing Sampling Locations and Maximum Contaminant Concentrations for Other Media
23	☐	Calculations Supporting the Development of the Tier I and Tier II or Tier III SSTLs
24	☐	Schematic of the Remedial System to Be Employed
25	☐	Maps Depicting Capture Zones, System Layout and Anticipated System Rates
26	☒	Performance Monitoring Plan
27	☒	Implementation Schedule for the Corrective Action
28	☐	Map Locating the Individuals and Population Segments Provided Public Notice

1.0 REPORTING AND RESPONSE TO RELEASES INVOLVING FREE PRODUCT

A. Has free product been encountered subsequent to submission of the Initial Assessment Report? ☐ Yes ☒ No

If "No", skip to Section 2.0. If "Yes", continue with question "B" below.

B. Date and Time Free Product Was Discovered:

C. Date and Time Free Product Fax Transmittal Sheet Submitted:

D. Has there ever been free product in the on-site or off-site soils? ☐ Yes ☐ No

E. Is there currently free product in the on-site or off-site soils? ☐ Yes ☐ No

F. Is there currently free product in or around buried underground utilities? ☐ Yes ☐ No

G. Has there ever been free product on/in the groundwater? ☐ Yes ☐ No

H. Is there currently free product on/in the groundwater? ☐ Yes ☐ No

I. What initial response actions were performed at this site to address the presence of free product?

PURPOSE OF INITIAL RESPONSE ACTIONS	WERE ACTIONS TAKEN? (Yes/Date or No)	IF "Yes", DESCRIBE THE ACTIONS TAKEN AND THEIR RESULTS IF "No", INDICATE WHY NOT
To identify the presence of free product [324.21307(2)(c)]		
To recover free product in a manner that minimizes the spread of contamination into previously uncontaminated zones [324.21307(2)(c)(i)]		
To utilize recovery and disposal techniques appropriate to site conditions [324.21307(2)(c)(i)]		
To properly treat recovery by-products as required by law (identify the type of treatment applied and the expected effluent quality) [324.21307(2)(c)(i)]		

PURPOSE OF INITIAL RESPONSE ACTIONS	WERE ACTIONS TAKEN? (Yes/Date or No)	IF "Yes", DESCRIBE THE ACTIONS TAKEN AND THEIR RESULTS. IF "No", INDICATE WHY NOT
To properly dispose of recovery by-products as required by law [324.21307(2)(c)(i)]		
To handle any flammable products in a safe and competent manner to prevent fires and explosions [324.21307(2)(c)(iii)]		

J. Complete the following table relating to free product recovery:

LOCATION OF OBSERVED FREE PRODUCT (Specify ID No.)	THICKNESS OF FREE PRODUCT OBSERVED (nearest 1/8")	TYPE OF FREE PRODUCT OBSERVED	LNAPL OR DNAPL*?	QUANTITY OF FREE PRODUCT RECOVERED (gallons)
IN WELLS				
IN BOREHOLES				
IN EXCAVATIONS				
OTHER LOCATIONS (Specify)				
TOTAL FREE PRODUCT RECOVERED TO DATE				

*LNAPL = Light Non-Aqueous Phase Liquid; DNAPL = Dense Non-Aqueous Phase Liquid

K. Has the extent of free product been defined? ☐ Yes ☐ No

L. If "Yes", include the extent of free product on the site map included as Attachment No. 1.

M. Describe the free product recovery system that was or is being used ☐ or is proposed ☐ *(include a schematic as Attachment No. 2, if appropriate):*

N. If the free product recovery system is currently "proposed", provide the planned installation date:

O. Has the recovered free product been properly disposed? ☐ Yes ☐ No

P. If "No", specify:

Q. Provide the name of the person or persons responsible for implementing the free product removal measures:
Company Name
Company Address
Company Telephone No.
Contact Person
Contact Telephone No.

2.0 DELINEATION OF THE EXTENT OF CONTAMINATION

A. Were additional site assessment activities conducted subsequent to the submission of the Initial Assessment Report? ☒ Yes ☐ No

B. If "Yes", what environmental media were further investigated?
(Check all that apply):

☒ Soil ☒ Groundwater ☐ Air ☐ Surface Water

☐ Sediments ☐ Biota ☐ Other *(Specify)*: _____

C. Was the Work Plan implemented as outlined in the Initial Assessment Report? ☒Yes ☐No

D. If "No", describe the changes made to the sampling and analysis plan in detail and provide justification for why they were made *(attach additional sheets, as needed)*:

2.1 SITE AND AREA MAPS

Area and site map(s), drawn to scale, may be used to effectively present a variety of information required to be included in this Final Assessment Report. It may not be possible to include all required information on one map. Multiple maps may be attached, with each highlighting a different type of information. However, use of multiple maps should be minimized. Placement of information on the site map(s) should be done in a clear and legible manner. The area map should show the location of the site boundaries in relation to the nearest major roads.

The base site map on which to display information required for the Final Assessment Report should include the following, as appropriate:

- *Location of each underground storage tank and associated piping in the leaking underground storage tank system (prior to excavation if tanks have been removed)*
- *Location of the release and the component of the underground storage tank system from which the release occurred*
- *Location of any other existing and former underground storage tanks at the site*
- *Approximate location of fill ports, dispensers, and other pertinent system components*
- *Location of nearby buildings, roadways, paved areas, or other structures*
- *Location of nearby surface waters or wetlands*

- *Location and depth of nearby underground sewers and utility lines*
- *Location of all wells within 100 feet of the property boundary*

2.2 SOIL CONDITIONS AND CHARACTERISTICS

A. Is soil contamination present? ☒ Yes ☐ No

NOTE: If "Yes", complete questions "B" through "H". If "No", skip to Section 2.3.

B. Total volume of soil remediated or disposed to date: 40 yds^3

C. Describe any soil remediation or disposal activities performed to date: To date, soils associated with limited excavation activities that occurred during the waste oil UST removal, gasoline UST replacement, product line replacement activities, and site assessment activities were disposed of at Browning-Ferris Industries, Arbor Hills Landfill located in Northville, Michigan.

D. Attach Field Screening Results (See Attachment No. 3) and Laboratory Results (See Attachment No. 4) tables showing the results of all soil sampling performed to date for the listed parameters. *(NOTE: The USTD may request copies of the laboratory data sheets, chain-of-custody forms, and all available QA/QC*

E. Provide in the Comparison Table for Soils (See Attachment No. 5) the maximum contaminant concentrations detected to date in the remaining soils for each listed parameter. *(NOTE: Enter "ND" with the appropriate method detection limit when the parameter was not detected, and enter "NA" when the chemical was not analyzed. In areas where remediation has occurred, do not include sample results for areas where the soil has been subsequently removed or the characteristics of the soil left in place have been altered due to the remediation.)*

F. Show the maximum concentrations, sample depths, and horizontal extent of soil contamination in relation to the soil sampling locations on a site map. *(See Attachment No. 6.)*

G. Describe the vertical extent and distribution of the soil contaminants using depth-coded site maps (See Attachment No. 6), cross sections (Attachment No. 8), and/or boring logs (See Attachment No. 9):
In general, site lithology consists of fill material to two feet below ground surface (bgs). Underlying the fill material is a silty clay to approximately four feet bgs. The silty clay is underlain by silty sands and clayey silts ranging from four to ten feet bgs. A silty clay was identified at the maximum depth explored of twelve feet bgs. Petroleum hydrocarbon impacts appear to be isolated to soils between zero and ten feet bgs.

Based upon review of potable well log records from the surrounding area, the lithology beneath the site is comprised of clays to approximately sixty feet bgs, where a sand unit of approximately two to ten feet is found. Beneath the sand are various layers of hardpan, gravel, and clays to one hundred forty feet bgs or more. Area potable water wells are screened beneath this clay, rangeing from about 140 to 190 feet bgs.

H. Was any on-site soil contamination not related to the release discovered during the site characterization activities performed subsequent to the submission of the Initial Assessment Report?
☐ Yes ☒ No

If "Yes", answer question "I"; otherwise, skip to Section 2.3.

I. Provide the following information:

ON-SITE CONTAMINANTS NOT RELATED TO THE RELEASE	SOURCE OF THIS CONTAMINATION (If Known)	LOCATION OF THIS CONTAMINATION

2.3 GROUNDWATER CONDITIONS AND CHARACTERISTICS

A. Has groundwater been encountered at the site? ☒ Yes ☐ No

B. If "No", provide the total depth investigated and the date of investigation:
Depth of Investigation: _____ ft BGS
Date of Investigation: _____/_____/_____

If "No", skip to Section 2.4; otherwise, continue with Section 2.3.

C. Is the groundwater potable? ☐ Yes ☒ No
D. Is the groundwater currently a source of drinking water? ☐ Yes ☒ No
E. Is groundwater being used for a purpose other than potable drinking use? ☐ Yes ☒ No
F. Is more than one groundwater unit present beneath the site? ☒ Yes ☐ No ☐ Unknown

Hydrogeologic Characteristics (*if appropriate*):
G. Average depth to groundwater (as measured in site well(s)): ~3.0 ft BGS
H. Depth to bottom of water-bearing layer: ~8.0 ft BGS
I. Depth to a potable groundwater unit: ~68* ft BGS
* Water was indicated in some area well logs at approximately 70 feet however, the potable water wells are set in water bearing units > 140 feet bgs.

J. Attach copies of boring logs (See Attachment No. 9) and well construction diagrams (See Attachment No. 10) for all monitoring wells.

Groundwater Flow Rate and Direction:
K. Predominant soil type in water-bearing stratum (*e.g., sand, silt*): silty sand/clayey silt
L. Effective porosity of water-bearing stratum 0.15 $cm^{3\ void}/cm^{3\ soil}$
M. Hydraulic conductivity (☐measured ☒ estimated): $1x10^{-6}$ cm/sec
N. Lateral hydraulic flow gradient (*attach a site map with groundwater flow direction and elevation data as Attachment No. 11 - USGS datum preferred*): 0.02 ft/ft to the south
O. Effective groundwater flow rate: 0.1 ft/yr

P. Identify hydrogeologic conditions that could influence flow direction *(describe here or attach description as Attachment No. 12:* Preferential pathways within fill materials associated with underground utilities may influence groundwater flow direction.

Q. Is there any indication of a vertical flow gradient? ☐ Yes ☒ No

R. If "Yes", describe: _____

S. Has the groundwater been affected by the release? ☒ Yes ☐ No
If "No", skip to Section 2.4; otherwise, continue with Section 2.3.

T. Has there been more than one groundwater unit contaminated by the release?
☐ Yes ☒ No

U. If "Yes", attach additional sheets answering questions "G" through "R" for each groundwater unit.

V. Describe any groundwater remediation activities performed to date:

W. Total volume of groundwater remediated to date: 0 gallons

X. Does the known plume currently extend off-site? ☒ Yes * ☐ No ☐ Unknown

* Below Groundwater Direct Contact Criteria.

Y. Attach Field Screening Results (Attachment No. 13) and Laboratory Results (See Attachment No. 14) tables showing the results of all groundwater sampling performed to date for the listed parameters. *(NOTE: The USTD may request copies of the laboratory data sheets, chain-of-custody forms, and all available QA/QC information.)*

Z. Provide in the Comparison Table for Groundwater (See Attachment No. 15) the maximum contaminant concentrations detected to date in the on-site or off-site groundwater for each listed parameter. *(NOTE: Enter "ND" with the appropriate method detection limit when the parameter was not detected, and enter "NA" when the chemical was not analyzed . In areas where remediation has occurred, do not include sample results for areas where the groundwater has been subsequently altered due to remediation.)*

AA. Show the maximum concentrations and the estimated aerial horizontal extent of the contaminated plume in relation to the groundwater sampling locations on the site map and include as Attachment No. 16 (See Attachment No. 16).

BB. Describe the vertical extent and distribution of the groundwater contaminants using depth-coded cross sections (Attachment No. 17) that show screened intervals of the monitoring wells. Cross sections locations should be included on the site map.

CC. Were multiple groundwater sampling events conducted at the site? ☐ Yes ☒No

DD. If "Yes", include a chronological summary of the results for each sampling location using the data tables provided in Attachment No. 14 and include as Attachment No. 18.

2.4 CONDITIONS AND CHARACTERISTICS IN OTHER ENVIRONMENTAL MEDIA

A. Is contamination present in any environmental media other than soil or groundwater?

☐ Yes ☒ No

NOTE: If "Yes", answer questions "B" through "I". If "No", skip to Section 3.0.

B. What other environmental media were investigated as part of this corrective action? (*Check all that apply*):

☐ Air ☐ Surface Water ☐ Sediment

☐ Biota ☐ Other (*Specify*): _____

NOTE: For each environmental media checked, answer questions "C" through "I".

C. Total volume of each of the other specified media remediated or disposed to date (*Specify units*): _____

D. Describe any remediation, treatment or disposal activities performed to date relative to each of the other specified media: _____

_____

_____

E. Attach Field Screening Results (Attachment No. 19) and Laboratory Results (Attachment No. 20) tables showing the results of all sampling performed to date for the listed parameters in the other specified environmental media. *(NOTE: The USTD may request copies of the laboratory data sheets, chain-of-custody forms, and all available QA/QC information.)*

F. Provide in the Comparison Table for Other Environmental Media (Attachment No. 21) the maximum contaminant concentrations detected to date in each other specified environmental media for each listed parameter. *(NOTE: Enter "ND" with the appropriate method detection limit when the parameter was not detected, and enter "NA" when the chemical was not analyzed. In areas where remediation has occurred, do not include sample results for areas where the material has been subsequently removed or the characteristics of the material left in place have been altered due to the remediation.)*

G. Show the maximum concentrations, sample depths, and extent of contamination in the other specified environmental media (*as appropriate*) in relation to the sampling locations on the site map included as Attachment No. 22.

H. Describe the extent and distribution of the contaminants in the other specified media: _____

_____

_____

_____

I. If there is known contamination in the other specified media not related to the release, complete the following:

ON-SITE CONTAMINANTS NOT RELATED TO THE RELEASE	SOURCE OF THIS CONTAMINATION (If Known)	LOCATION OF THIS CONTAMINATION

3.0 SITE CLASSIFICATION

A. Indicate the current Site Classification Level *(See Attachment No. 10 of the "Guidance Document for Risk-Based Corrective Action at Leaking Underground Storage Tanks"):*

- ☐ Class 1: Immediate threat to human health, safety, or sensitive environmental receptors
- ☐ Class 2: Short-term threat to human health, safety, or sensitive environmental receptors
- ☒ Class 3: Long-term threat to human health, safety, or sensitive environmental receptors
- ☐ Class 4: No demonstrable long-term threat to human health, safety, or sensitive environmental receptors

NOTE: Regardless of the classification level, all reports must be submitted within the legislative time frame unless an alternate schedule is approved in writing by the USTD.

B. Date of most recent classification or reclassification: 7/5/96 (Initial Abatement Report)

C. Is this classification a reclassification performed subsequent to the submission of the Initial Assessment Report? ☐ Yes ☒

D. If "Yes", describe the conditions that have changed significantly since the prior classification to justify the reclassification:_____

4.0 RESULTS OF THE TIER II OR TIER III EVALUATION

4.1 CONFIRMATION OF EXPOSURE PATHWAYS AND SCENARIOS

A. Have any of the following site characteristics or conditions, transport mechanisms, exposure routes, or potential receptors at the site or the surrounding area been newly identified to be present or changed significantly in character since the submission of the Initial Assessment Report? ☒ Yes ☐ No

B. If "Yes", check all that are newly identified or significantly changed since the submission of the Initial Assessment Report:

Site Characteristics or Conditions

- ☐ Neighboring Land Use or Local Zoning Changes
- ☐ New or Discontinued Uses of Groundwater At or Near the Site
- ☐ Changes in On-Site Facility Operations
- ☐ Construction of New Structures or Utilities At or Near the Site

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
- ☐ Stormwater/Surface Water Transport
- ☐ Utility Corridors
- ☐ Other *(Specify)*: _____

Potential Exposure Route(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)*: Direct Contact of Groundwater with Skin.

Potential Receptor(s)

- ☐ Resident
- ☐ Commercial Worker III*
- ☐ Commercial Worker IV*
- ☐ Industrial Worker
- ☐ Construction Worker
- ☐ Sensitive Habitat
- ☐ Structures
- ☐ 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"

C. For each item checked above, briefly describe the change and its potential impact on the selection of exposure route(s) and potential receptors for the Tier II or Tier III evaluation relative to the Tier I or Tier II evaluation included in the Initial Assessment Report (*use additional attached sheets, if necessary*): The existence of

impacted groundwater on-site subsequent to the Initial Assessment Report identifies the potential for non-potable use of impacted water and the possibility of "Direct Contact of Groundwater with Skin".

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 include:

1. *inhalation of 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. *groundwater discharging to wetlands*

D. List the most plausible potential residential exposure pathway(s) for the site:
The most plausible residential exposure pathway would result from the inhalation of vapors which may migrate to the atmosphere.

E. List the most plausible potential commercial exposure pathway(s) for the site:
The most plausible commercial exposure pathway would result from direct contact with impacted soil/groundwater by a construction worker during excavation activities.

F. List the most plausible potential industrial exposure pathway(s) for the site:
No plausible industrial exposure pathway is believed to exist.

G. List the most plausible potential sensitive habitat exposure pathway(s) for the site:
No plausible sensitive habitat exposure pathway is believed to exist.

4.2 JUSTIFICATION FOR ALTERNATE ASSUMPTIONS OR MODELING PARAMETER SELECTIONS

A. Has a site-specific Tier II or Tier III evaluation been conducted for this Final 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 the "Guidance Document For Risk-Based Corrective Action At Leaking Underground Storage Tanks". *(If a Tier II evaluation was performed and described in the Initial Assessment Report, explicitly indicate where different assumptions or site-specific information were used in this Tier II or Tier III evaluation and why the change was justified.)*

ASSUMPTION	DEFAULT TIER I OR PRIOR TIER II SELECTION	ALTERNATE SELECTION	JUSTIFICATION OR BASIS FOR SUBSTITUTION *(Attach sheets if needed)*

C. Include the calculations supporting the development of the relevant Tier I RBSLs and Tier II or Tier III SSTLs as Attachment No. 23.

4.3 IDENTIFICATION OF TIER I RISK-BASED SCREENING LEVELS OR TIER II / TIER III SITE-SPECIFIC TARGET LEVELS AND COMPARISON TO SITE DATA

A. For each contaminated medium, complete a Tier I RBSL / Tier II or Tier III SSTL Comparison Table (Attachment No. 5 for soil, Attachment No. 15 for groundwater and Attachment No. 21 for other media, as appropriate) by:

1. Checking the box associated with the applicable land use scenario;

2. Checking the boxes associated with the contaminants currently present at the site;

3. 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;

4. Entering the lowest applicable RBSL value 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*];
5. Comparing the contaminant-specific maximum concentration to the corresponding RBSL or SSTL criterion; and

6. Identifying and recording whether or not there is an exceedence of the RBSL or the SSTL.

B. Tier I RBSL / Tier II or Tier III SSTL Comparison Tables are attached for the following *(Check all that apply):*

	ENVIRONMENTAL MEDIUM		
LAND USE	**SOIL**	**GROUNDWATER**	**OTHER** *(Specify)*
Residential	☒	☒	☐
Commercial III	☐	☐	☐
Commercial IV	☐	☐	☐
Industrial	☐	☐	☐

4.4 PROPOSED FOLLOW-UP ACTIVITIES

A. Based on the results of the Tier II or III evaluation, indicate the follow-up activities proposed for the site:

☐ Site conditions do not exceed the relevant Tier I RBSLs or the calculated Tier II/ Tier III SSTLs do not rely on institutional controls	Proceed with site closure. **No further sections of Final Assessment Report need to be completed.**
☒ Site conditions exceed some or all of the relevant Tier I RBSLs or Tier II/Tier III SSTLs	Propose final corrective action to achieve Tier I RBSLs or Tier II/Tier III SSTLs. **Continue with Section 5.0.**

5.0 FEASIBILITY ANALYSIS

A. As appropriate, given the site conditions, complete the following comparison table of the potentially applicable corrective actions that were considered for the facility to reduce the volume, toxicity and/or mobility of the released regulated substances (*both on-site and off-site, as applicable*), noting the principal advantages and disadvantages of each listed alternative. *(Indicate explicitly, where appropriate, the relative estimated net present value cost of each alternative corrective action, its indicated effectiveness and feasibility, and the time needed to implement and complete the alternative. Attach additional sheets, if necessary.)*

CORRECTIVE ACTION ALTERNATIVES	PRINCIPAL ADVANTAGES	PRINCIPAL DISADVANTAGES
Soil, Groundwater, and Vapor Monitoring. *	Current soil and groundwater impacts are below Tier I residential RBSLs (direct contact) with the exception of xylenes in soil and PNAs in water. Vapor pathways can be initiated; natural attenuation can be monitored.	None

* No remedial alternatives were considered. See Section 5.0 B.

B. Identify and briefly describe the preferred alternative. *(Attach additional sheets, if needed. Document the rationale for selecting this option by discussing how the selected remedial action will:*

- *Be protective of human health and the environment*
- *Comply with applicable or relevant and appropriate requirements*
- *Meet the requirements of the Risk-Based Corrective Action process*
- *Be a permanent solution (to the maximum extent possible)*
- *Be cost-effective)*

Petroleum hydrocarbon impacts to soil and groundwater appear to be below the appropriate Tier I Residential RBSLs (direct contact) for this site (with the exception of xylenes in soil at location S-2 (2.5' bgs), and PNA constituents detected in groundwater at PH-2). Monitoring will allow the collection of soil, groundwater, and vapor data to assess natural attenuation. This approach is consistent with the requirements of the RBCA process, is in compliance with ARARs, and should result in a closure which is protective of human health and the environment. Should future evaluations indicate remediation is necessary, a revised FAR will be submitted.

C. Has a pilot study been conducted to demonstrate the performance of any component or subsystem associated with the corrective action? ☐ Yes ☒ No

D. If "Yes", describe the pilot study or testing that was conducted and present the results *(attach additional sheets, if necessary)*: _____

E. If a pilot study or testing was not conducted, explain why they were not needed: No active remediation is proposed.

6.0 CORRECTIVE ACTION PLAN

6.1 DESCRIPTION OF THE CORRECTIVE ACTION

A. Describe the overall program and the primary components of the selected corrective action to be implemented at the facility (*attach additional sheets, if necessary*):
A soil, goundwater, and vapor monitoring program will be implemented to assess natural attenuation.

B. Include a schematic drawing of the remedial system to be employed (Attachment No. 24).

C. Include maps depicting capture zones/zones of influence, system layout, and anticipated system rates (Attachment No. 25).

D. From Attachment No. 12 to the "Guidance Document for Risk-Based Corrective Action at Leaking Underground Storage Tanks" (*entitled "Guidance for Parameters, Analytical Methods, Sample Handling, Quality Control, and Cleanup Limits for Petroleum Hydrocarbon Releases"*), specify and justify the indicator parameters to be used (*if applicable*) to evaluate the implementation of the Corrective Action Plan. *(For each indicator parameter, identify the corresponding cleanup goal and the basis of the cleanup goal.)*

INDICATOR PARAMETER / Rationale for Selection	**IDENTIFIED CLEANUP GOAL**	**UNITS (ug/kg or ug/l)**	**BASIS OF THE CLEANUP GOAL**
Benzene	9,300 GW 88,000 soil	ug/l ug/kg	Direct contact Direct contact
Toluene	526,000 GW 6020000 soil	ug/l ug/kg	Solubility Soil saturation
Ethylbenzene	169,000 GW 380,000 soil	ug/l ug/kg	Solubility Soil saturation
Xylenes	186,000 GW 400,000 soil	ug/l ug/kg	Solubility Soil saturation
MTBE	1,700,000 GW 3,600,000 soil	ug/l ug/kg	Direct contact Direct contact
PNA	Reference Operational Memorandum #4 (Direct Contact)	ug/l ug/kg	Direct contact of appropriate Csat criteria

6.2 AMBIENT AIR QUALITY MONITORING ACTIVITIES

A. Will ambient air quality be monitored during the implementation of the corrective action?
☐ Yes ☒ No

B. If "No", explain why air monitoring is not needed: No active corrective action is proposed; the impacted area is directly below an operating gasoline service station.

C. If "Yes", describe the air quality monitoring to be conducted during the corrective action:

PARAMETERS TO BE MONITORED	ACTION LEVEL (Basis for Action Level)	MONITORING DEVICE TO BE USED	MONITORING FREQUENCY	PROCEDURE TO BE FOLLOWED IF ACTION LEVEL EXCEEDED

6.3 PLANS FOR OPERATION AND MAINTENANCE

A. Does any equipment or system associated with the corrective action need to be operated or maintained in order for the RBSLs or SSTLs to be met? ☐ Yes ☒ No

(NOTE: The USTD may request that operation and maintenance information and procedures for this equipment or systems be developed as identified in Section 21309(2)(b).)

6.4 PLANS FOR PERFORMANCE MONITORING

A. Does meeting the cleanup goals depend on the performance of a treatment system or a system for controlling the further release or migration of contaminants? ☐ Yes ☒ No

* The site currently meets (with the exception of total xylenes in soil and some PNA constituents in groundwater) Tier I RBSLs (direct contact) therefore, additional monitoring is proposed to assess natural attenuation.

If "No", skip to Section 6.5.

B. Identify the environmental media to be monitored during the corrective action *(Check all that apply)*:

ENVIRONMENTAL MEDIA TO BE MONITORED	ON-SITE	OFF-SITE
Soil	☒	☒
Groundwater	☒	☒
Surface Water		

Other *(Specify)*: Vapor	☒	

C. Provide the following information regarding the plan for performance monitoring which is included as Attachment No. 26:

REQUIRED INFORMATION OR CONTENTS	INCLUDED IN THE MONITORING PLAN? (Yes or No)	IDENTIFY SECTION(S) / PAGE(S) WITHIN THE MONITORING PLAN WHERE THE SPECIFIED INFORMATION IS PRESENTED
Location of monitoring points (Include a site map with locations marked) [324.21309a(2)(c)(i)]	Yes	1
Monitoring frequency and schedule [324.21309a(2)(c)(iii)]	Yes	1
Monitoring methodology and sample collection procedures [324.21309a(2)(c)(iv)]	Yes	1
Monitoring parameters to be used as indicators, and the rationale for their selection [324.21309a(2)(c)(v)]	Yes	1
Laboratory name, analytical method to be employed, method detection limits, and practical quantitation limits [324.21309a(2)(c)(vi)]	Yes	1
Quality assurance/ quality control (QA/QC) procedures and measures to be employed [324.21309a(2)(c)(vii)]	Yes	2
Description of how the monitoring data will be presented and analyzed to demonstrate the effectiveness of the corrective action [324.21309a(2)(c)(viii) and (xi)]	Yes	2
Operation and maintenance provisions for the monitoring activities [324.21309a(2)(c)(x)]	No	N/A
Any contingency planning to address ineffective monitoring [324.21309a(2)(c)(ix)]	No	N/A
Other information requested by USTD [324.21309a(2)(c)(xii)] *(Specify, if applicable)*:_____	No	N/A

NOTE: The USTD must be notified immediately if ineffective corrective action is indicated by monitoring activities.

6.5 SCHEDULE FOR IMPLEMENTATION OF THE CORRECTIVE ACTION

A. Attach the schedule for implementing the corrective action (*Include as Attachment No. 27. Reflect sufficient detail, a breakdown of the overall program into subcomponents, and the identification of key interim milestones (e.g., proposed submittal dates for Public Notice, Notice of Corrective Action, etc.) to demonstrate that the corrective action is implementable and has been adequately planned.)*

B. Date Confirmed Release Report Submitted: 4 / 8 / 96
C. Date Initial Assessment Report Submitted: 7 / 5 / 96
D. Date of Subsequent or Other Releases (*if appropriate*): 4 / 28 / 96

E. Proposed Corrective Action Start Date: 6 / 8 / 97

F. Dates of Key Interim Milestones (*Specify*):
G. Proposed Remedial Activity Completion Date: 11/98
H. Expected Performance Monitoring Completion Date: 11/98

6.6 NOTICES AND RESTRICTIONS

A. Will the corrective action plan require the use of institutional controls to restrict land use or resources?
☐ Yes ☒ No

If "No", skip to Section 6.7; otherwise, answer questions "B" through "F" below.

B. What notices or restrictions will be filed based on the planned corrective action?
(*Check all that apply)*

☐ Public Notice [324.21309a(3)] ☐ Notice of Corrective Action [324.21310a(1)]

☐ Restrictive Covenant [324.21310a(2)] ☐ Other Mechanisms [324.21310a(3)]

C. Will USTD guidance be used to establish the form and content of the required notice(s) as provided in Attachment 20 of the "Guidance Document for Risk-Based Corrective Action at Leaking Underground Storage Tanks"? ☐ Yes ☐ No

D. If "No", provide an explanation: _____

_____

E. Describe all land use and/or resource limitations associated with the planned corrective action:

_____

F. Identify the individuals or segments of the public to be provided notice of the proposed land use restrictions or limitations to be placed on resource use. (*Include a map showing location(s) of the individuals or segments of the public to be notified, if appropriate, as Attachment No. 28*):

6.7 FINANCIAL ASSURANCE MECHANISM

A. Has a financial assurance agreement, as provided for in R29.2161 to R29.2169 of the Michigan Administrative Code, been included for approval by the USTD to assure the effectiveness and integrity of the corrective action? ☒ Yes ☐ No

B. If "No", provide an explanation: _____

If "Yes", provide the following:

C. Date the financial assurance mechanism was submitted to USTD: 7 / 15 / 96
D. Amount of the financial assurance mechanism: $ 2,000,000
E. Coverage of the financial assurance mechanism
(check all that apply):

☒ Monitoring ☐ Operation and Maintenance
☒ Oversight ☐ Other (*Specify*):_____

6.8 PERMITTING AND APPROVAL REQUIREMENTS

A. Will the corrective action result in any discharge during its implementation?
☐ Yes ☒ No

If "No", no more information is necessary; if "Yes", continue with questions "B" and "C".

B. Describe the activity(s) representing the source of the discharge:

C. Provide the following information regarding the planned discharges:

SOURCE OF THE DISCHARGE	LOCATION OF THE DISCHARGE POINT (Attach a Site Map, if applicable)	WILL TREATMENT BE PERFORMED PRIOR TO DISCHARGE? IF SO, DESCRIBE.	ARE PERMITS REQUIRED FOR DISCHARGE? IF SO, DESCRIBE WHAT STEPS HAVE BEEN TAKEN TO OBTAIN THEM.

ATTACHMENT 26

Monitoring Plan
Shell Oil Products Company
975 Rochester Road
Rochester, Michigan

This performance monitoring plan has been developed for the above referenced site as directed by Michigan Public Act 451, Section 21309a(2)(c).

Monitoring Locations and Frequency

Groundwater and soil monitoring will be conducted to monitor natural attenuation at the site. The locations to be monitored are depicted on a site map (Attachment 25). Groundwater samples will be collected from these monitoring wells on a quarterly basis beginning June 1997. Soil samples will be collected from borings advanced at the monitoring points on an annual basis beginning September 1997. Samples will continue to be collected until such time that it is determined that: corrective action has been successful (at which time closure verification will be initiated), or corrective action has been unsuccessful and an alternative remedial approach is proposed. A schedule, assuming corrective action is complete in 18 months, is attached (Attachment 27).

Groundwater and Soil Sample Collection Procedures

Before collecting groundwater samples, three casing volumes of water will be removed from the wells. To insure sample integrity, monitoring wells will be purged and sampled using one disposable polyethylene bailer per well. Groundwater samples will be transferred from the bailer to laboratory prepared sample containers, placed on ice, and transported to an analytical laboratory under chain-of-custody protocol.

Soil samples will be collected by advancing a boring in the impacted area. The soil borings will be advanced to the water-table and a soil sample will be collected from the interval of the vadose zone indicating the highest organic vapor levels (based upon PID screening). The soil sample will be placed in a laboratory prepared sample container, placed on ice, and transported to an analytical laboratory under chain-of-custody protocol.

Monitoring Parameters and Analytical Methods/MDLs

Groundwater and soil samples will be analyzed for the following.

PARAMETER	ANALYTICAL METHOD	METHOD DETECTION LIMIT
Benzene	USEPA 8020 or similarly approved method from MERA Memo #6	5 ppb (GW) / 10 ppb (soil)
Toluene	USEPA 8020 or similarly approved method from MERA Memo #6	1 ppb (GW) / 10 ppb (soil)
Ethylbenzene	USEPA 8020 or similarly approved method from MERA Memo #6	1 ppb (GW) / 10 ppb (soil)
Xylenes	USEPA 8020 or similarly approved method from MERA Memo #6	3 ppb (GW) / 30 ppb (soil)
MTBE	USEPA 8020 or similarly approved method from MERA Memo #6	50 ppb (GW) / 100 ppb (soil)
PNA	USEPA 8310 or similarly approved method from MERA Memo #6.	5 ppb (GW) / 330 ppb (soil)

These parameters have been identified as indicators for gasoline releases by the MDEQ's *Guidance for Parameters, Analytical Methods, Sample Handling, Quality Control, and Cleanup Limits for Petroleum Hydrocarbon Releases* (June 30, 1995) draft guidance document, and appear to be appropriate based upon previous site investigations.

The analytical laboratory is currently identified as Southern Petroleum Laboratories (SPL) in Traverse City, Michigan.

Quality Assurance and Quality Control Measures

EnecoTech's Quality Assurance/Quality Control (QA/QC) program will be adhered to during all phases of the investigation. QA/QC procedures include, but are not limited to:

- Decontamination of sampling equipment before and between sampling events;
- Chain-of-custody protocol for laboratory analyses;
- Proper calibration of field equipment; and
- Documentation of all field activities.

Additionally, a copy of SPLs QA/QC Program is attached for review.

Data Evaluations

Upon completion of the laboratory analysis, EnecoTech will review the sample results to determine if concentrations are above or below the RBSLs. The results will be reviewed to determine general trends. The results of EnecoTech's evaluations will be presented to the MDEQ on a quarterly basis in a Monitoring Summary Report. The report will include a copy of the analytical reports, site maps depicting analytical results, and a summary of findings.

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY - UNDERGROUND STORAGE TANK DIVISION

FINAL ASSESSMENT REPORT

ATTACHMENT NO. 3
FIELD SCREENING RESULTS - SOIL
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

Sample ID	BS-1		BS-2		NSW		SSW		ESW	
Sample Depth (feet BGS)	8.0		8.0		4.0		4.0		4.0	
Date Collected	4/15/96		4/15/96		4/15/96		4/15/96		4/15/96	
Date Analyzed	4/15/96		4/15/96		4/15/96		4/15/96		4/15/96	
Collection Method*	GS		GS		GS		GS		GS	
Screening Instrument	PID		PID		PID		PID		PID	
CONSTITUENT	Result	D.L	Result	D.L	Result	D.L	Result	D.L	Result	D.L
Total Organics (ppm)	ND	1	ND	1	ND	1	ND	1	ND	1
Benzene (ppb)										
Ethylbenzene (ppb)										
Toluene (ppb)										
Total Xylenes (ppb)										
Other *(Specify)*										
Sample ID	WSW		S-1		S-2		S-3		S-4	
Sample Depth (feet BGS)	4.0		2.5		2.5		2.0		2.0	
Date Collected	4/15/96		4/18/96		4/18/96		4/18/96		4/18/96	
Date Analyzed	4/15/96		4/18/96		4/18/96		4/18/96		4/18/96	
Collection Method*	GS		GS		GS		GS		GS	
Screening Instrument	PID		PID		PID		PID		PID	
CONSTITUENT	Result	D.L	Result	D.L	Result	D.L	Result	D.L	Result	D.L
Total Organics (ppm)	ND	1	668	1	2491	1	1849	1	3.0	1
Benzene (ppb)										
Ethylbenzene (ppb)										
Toluene (ppb)										
Total Xylenes (ppb)										
Other *(Specify)*										

BGS = Below Ground Surface
* Collection Method Codes *(List all that aply):* Grab Sample (GS), Split Spoon (SS)m Hand Auger (HA), Geoprobe (GP), Continuous Corer (CC), Soil Gas (SG), Cone Penetrometer (CP), Hydropunch (HP)
*If other (OT) specify here:*_____
MDL = Method Detection Limit

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FINAL ASSESSMENT REPORT (CONTINUED)

ATTACHMENT NO. 3
FIELD SCREENING RESULTS - SOIL
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

Sample ID	PH-1		PH-2		PH-3		PH-3		PH-4	
Sample Depth (feet BGS)	4-6		2-4		2-4		10-12		2-4	
Date Collected	10/17/96		10/17/96		10/17/96		10/18/96		10/17/96	
Date Analyzed	10/17/96		10/17/96		10/17/96		10/18/96		10/17/96	
Collection Method*	GP		GP		GP		GP		GP	
Screening Instrument	PID		PID		PID		PID		PID	
CONSTITUENT	Result	D.L	Result	D.L	Result	D.L	Result	D.L	Result	D.L
Total Organics (ppm)	4	0.1	545	0.1	ND	0.1	ND	0.1	ND	0.1
Benzene (ppb)										
Ethylbenzene (ppb)										
Toluene (ppb)										
Total Xylenes (ppb)										
Other *(Specify)*										
Sample ID	PH-4		PH-5		PH-5		PH-6		PH-6	
Sample Depth (feet BGS)	10-12		2-4		10-12		2-4		10-12	
Date Collected	10/17/96		10/18/96		10/18/96		10/18/96		10/18/96	
Date Analyzed	10/17/96		10/18/96		10/18/96		10/18/96		10/18/96	
Collection Method*	GP		GP		GP		GP		GP	
Screening Instrument	PID		PID		PID		PID		PID	
CONSTITUENT	Result	D.L	Result	D.L	Result	D.L	Result	D.L	Result	D.L
Total Organics (ppm)	ND	0.1	5	0.1	ND	0.1	ND	0.1	ND	0.1
Benzene (ppb)										
Ethylbenzene (ppb)										
Toluene (ppb)										
Total Xylenes (ppb)										
Other *(Specify)*										

BGS = Below Ground Surface
* Collection Method Codes *(List all that aply):* Grab Sample (GS), Split Spoon (SS)m Hand Auger (HA), Geoprobe (GP), Continuous Corer (CC), Soil Gas (SG), Cone Penetrometer (CP), Hydropunch (HP)
*If other (OT) specify here:*_____
MDL = Method Detection Limit

FINAL ASSESSMENT REPORT

ATTACHMENT NO. 3
FIELD SCREENING RESULTS - SOIL
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

Sample ID	PH-7		PH-7		PH-8		PH-9		PH-9	
Sample Depth (feet BGS)	2-4		10-12		2-4		4-6		10-12	
Date Collected	10/18/96		10/18/96		10/17/96		10/17/96		10/17/96	
Date Analyzed	10/18/96		10/18/96		10/17/96		10/17/96		10/17/96	
Collection Method*	GP		GP		GP		GP		GP	
Screening Instrument	PID		PID		PID		PID		PID	
CONSTITUENT	Result	D.L	Result	D.L	Result	D.L	Result	D.L	Result	D.L
Total Organics (ppm)	ND	0.1	ND	0.1	250	0.1	4	0.1	ND	0.1
Benzene (ppb)										
Ethylbenzene (ppb)										
Toluene (ppb)										
Total Xylenes (ppb)										
Other *(Specify)*										
Sample ID	PH-10		PH-10		PH-11		PH-12			
Sample Depth (feet BGS)	2-4		10-12		2-4		2-4			
Date Collected	10/17/96		10/17/96		10/17/96		10/17/96			
Date Analyzed	10/17/96		10/17/96		10/17/96		10/17/96			
Collection Method*	GP		GP		GP		GP			
Screening Instrument	PID		PID		PID		PID			
CONSTITUENT	Result	D.L	Result	D.L	Result	D.L	Result	D.L	Result	D.L
Total Organics (ppm)	ND	0.1	ND	0.1	10	0.1	4	0.1		
Benzene (ppb)										
Ethylbenzene (ppb)										
Toluene (ppb)										
Total Xylenes (ppb)										
Other *(Specify)*										

3BGS = Below Ground Surface
* Collection Method Codes *(List all that aply):* Grab Sample (GS), Split Spoon (SS)m Hand Auger (HA), Geoprobe (GP), Continuous Corer (CC), Soil Gas (SG), Cone Penetrometer (CP), Hydropunch (HP)
*If other (OT) specify here:*_____
MDL = Method Detection Limit

FINAL ASSESSMENT REPORT (CONTINUED)

ATTACHMENT NO. 4
LABORATORY RESULTS - SOIL
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

VOLATILES										
Sample ID	BS-1		BS-2		NSW		SSW		ESW	
Sample Depth (feet BGS)	8.0		8.0		4.0		4.0		4.0	
Date Collected	4/15/96		4/15/96		4/15/96		4/15/96		4/15/96	
Date Extracted										
Date Analyzed	4/27/96		4/28/96		4/27/96		4/27/96		4/27/96	
Analytical Method No.	8020		8020		8020		8020		8020	
Collection Method*	GS		GS		GS		GS		GS	
CONSTITUENT (ug/kg)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Benzene	ND	5	ND	5	ND	5	ND	5	ND	5
☒ Toluene	ND	5	ND	5	ND	5	ND	5	ND	5
☒ Ethylbenzene	ND	5	ND	5	ND	5	ND	5	ND	5
☒ Total Xylenes	ND	5	ND	5	ND	5	ND	5	ND	5
☐ MTBE										
VOLATILES										
Sample ID	WSW		S-1		S-2		S-3		S-4	
Sample Depth (feet BGS)	4.0		2.5		2.5		2.0		2.0	
Date Collected	4/15/96		4/18/96		4/18/96		4/18/96		4/18/96	
Date Extracted										
Date Analyzed	4/27/96		4/24/96		4/24/96		4/24/96		4/23/96	
Analytical Method No.	8020		8020		8020		8020		8020	
Collection Method*	GS		GS		GS		GS		GS	
CONSTITUENT (ug/kg)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Benzene	ND	5	8,700	610	14,000	1,200	28,000	560	ND	5
☒ Toluene	ND	5	20,000	610	32,000	1,200	47,000	560	ND	5
☒ Ethylbenzene	ND	5	42,000	610	150,000	1,200	71,000	560	ND	5
☒ Total Xylenes	ND	5	173,000	610	510,000	1,200	320,000	560	ND	5
☒ MTBE	NA	NA	7,700	610	4,000	1,200	15,000	560	11	5

BGS = Below Ground Surface
* Collection Method Codes *(List all that aply):* Grab Sample (GS), Split Spoon (SS)m Hand Auger (HA), Geoprobe (GP), Continuous Corer (CC), Soil Gas (SG), Cone Penetrometer (CP), Hydropunch (HP)
*If other (OT) specify here:*_____
MDL = Method Detection Limit

ATTACHMENT NO. 4
LABORATORY RESULTS - SOIL
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

VOLATILES										
Sample ID	PH-1		PH-2		PH-3		PH-3		PH-4	
Sample Depth (feet BGS)	4-6		2-4		2-4		10-12		2-4	
Date Collected	10/17/96		10/17/96		10/18/96		10/18/96		10/17/96	
Date Extracted										
Date Analyzed	10/29/96		10/28/96		10/29/96		10/29/96		10/29/96	
Analytical Method No.	8020A		8020A		8020A		8020A		8020A	
Collection Method*	GP		GP		GP		GP		GP	
CONSTITUENT (ug/kg)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Benzene	ND	5	25,000	550	ND	5	ND	5	ND	5
☒ Toluene	ND	5	160,000	550	ND	5	ND	5	ND	5
☒ Ethylbenzene	ND	5	86,000	550	ND	5	ND	5	ND	5
☒ Total Xylenes	ND	5	420,000	550	ND	5	ND	5	ND	5
☒ MTBE	6	5	18,000	550	ND	5	ND	5	5	5
VOLATILES										
Sample ID	PH-4		PH-5		PH-5		PH-6		PH-6	
Sample Depth (feet BGS)	10-12		2-4		10-12		2-4		10-12	
Date Collected	10/17/96		10/18/96		10/18/96		10/18/96		10/18/96	
Date Extracted										
Date Analyzed	10/29/96		10/26/96		10/26/96		10/29/96		10/28/96	
Analytical Method No.	8020A		8020A		8020A		8020A		8020A	
Collection Method*	GP		GP		GP		GP		GP	
CONSTITUENT (ug/kg)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Benzene	ND	5	ND	5	ND	5	ND	5	ND	5
☒ Toluene	ND	5	ND	5	ND	5	ND	5	ND	5
☒ Ethylbenzene	ND	5	ND	5	ND	5	ND	5	ND	5
☒ Total Xylenes	ND	5	ND	5	ND	5	ND	5	ND	5
☒ MTBE	ND	5	ND	5	ND	5	ND	5	ND	5

2BGS = Below Ground Surface
* Collection Method Codes *(List all that aply):* Grab Sample (GS), Split Spoon (SS)m Hand Auger (HA), Geoprobe (GP), Continuous Corer (CC), Soil Gas (SG), Cone Penetrometer (CP), Hydropunch (HP)
*If other (OT) specify here:*_____
MDL = Method Detection Limit

FINAL ASSESSMENT REPORT

ATTACHMENT NO. 4
LABORATORY RESULTS - SOIL
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

VOLATILES										
Sample ID	PH-7		PH-7		PH-8		PH-9		PH-9	
Sample Depth (feet BGS)	2-4		10-12		2-4		4-6		10-12	
Date Collected	10/18/96		10/18/96		10/17/96		10/17/96		10/17/96	
Date Extracted										
Date Analyzed	10/26/96		10/28/96		10/29/96		10/29/96		10/29/96	
Analytical Method No.	8020A		10/28/96		8020A		8020A		8020A	
Collection Method*	GP		GP		GP		GP		GP	
CONSTITUENT (ug/kg)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Benzene	ND	5	ND	5	27	5	7	5	8	5
☒ Toluene	ND	5	ND	5	ND	5	ND	5	6	5
☒ Ethylbenzene	ND	5	ND	5	150	5	ND	5	ND	5
☒ Total Xylenes	ND	5	ND	5	134	5	ND	5	ND	5
☒ MTBE	ND	5	ND	5	30	5	13	5	10	5
VOLATILES										
Sample ID	PH-10		PH-10		PH-11		PH-12		MW-3	
Sample Depth (feet BGS)	2-4		10-12		2-4		2-4		2-4	
Date Collected	10/17/96		10/17/96		10/17/96		10/17/96		12/4/96	
Date Extracted										
Date Analyzed	10/29/96		10/26/96		10/29/96		10/29/96		12/17/96	
Analytical Method No.	8020A		8020A		8020A		8020A		8020A	
Collection Method*	GP		GP		GP		GP		SS	
CONSTITUENT (ug/kg)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Benzene	ND	5	ND	5	6	5	18	5	71	6
☒ Toluene	ND	5	ND	5	7	5	ND	5	8	6
☒ Ethylbenzene	ND	5	ND	5	ND	5	ND	5	490	6
☒ Total Xylenes	ND	5	ND	5	15	5	ND	5	209	6
☒ MTBE	ND	5	7	5	5	5	21	5	90	6

3BGS = Below Ground Surface
* Collection Method Codes *(List all that aply):* Grab Sample (GS), Split Spoon (SS)m Hand Auger (HA), Geoprobe (GP), Continuous Corer (CC), Soil Gas (SG), Cone Penetrometer (CP), Hydropunch (HP)
*If other (OT) specify here:*_____
MDL = Method Detection Limit

ATTACHMENT NO. 4
LABORATORY RESULTS - SOIL
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

VOLATILES										
Sample ID	MW-3		MW-8		MW-8					
Sample Depth (feet BGS)	8-10		2-4		10-12					
Date Collected	12/4/96		12/4/96		12/4/96					
Date Extracted										
Date Analyzed	12/15/96		12/15/96		12/15/96					
Analytical Method No.	8020A		8020A		8020A					
Collection Method*	SS		SS		SS					
CONSTITUENT (ug/kg)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Benzene	5	5	5	5	ND	5				
☒ Toluene	ND	5	ND	5	ND	5				
☒ Ethylbenzene	ND	5	ND	5	ND	5				
☒ Total Xylenes	ND	5	ND	5	ND	5				
☒ MTBE	ND	5	ND	5	ND	5				
VOLATILES										
Sample ID										
Sample Depth (feet BGS)										
Date Collected										
Date Extracted										
Date Analyzed										
Analytical Method No.										
Collection Method*										
CONSTITUENT (ug/kg)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☐ Benzene										
☐ Toluene										
☐ Ethylbenzene										
☐ Total Xylenes										
☐ MTBE										

4BGS = Below Ground Surface
* Collection Method Codes *(List all that aply):* Grab Sample (GS), Split Spoon (SS)m Hand Auger (HA), Geoprobe (GP), Continuous Corer (CC), Soil Gas (SG), Cone Penetrometer (CP), Hydropunch (HP)
*If other (OT) specify here:*_____
MDL = Method Detection Limit

ATTACHMENT NO. 4
LABORATORY RESULTS-SOIL
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

VOLATILES										
Sample ID	BS-1		BS-2		NSW		SSW		ESW	
Sample Depth (feet BGS)	8.0		8.0		4.0		4.0		4.0	
Date Collected	4/15/96		4/15/96		4/15/96		4/15/96		4/15/96	
Date Extracted										
Date Analyzed	4/22/96		4/22/96		5/3/96		5/3/96		5/3/96	
Analytical Method No.	8310		8310		8310		8310		8310	
Collection Method*	GS		GS		GS		GS		GS	
CONSTITUENT (ug/kg)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Acenaphthene	ND	230	ND	230	ND	230	ND	240	ND	240
☒Acenaphthylene	ND	230	ND	230	ND	230	ND	240	ND	240
☒ Anthracene	ND	230	ND	230	ND	230	ND	240	ND	240
☒ Benzo(a)anthracene	ND	230	ND	230	ND	230	320	240	ND	240
☒ Benzo(a)pyrene	ND	230	ND	230	ND	230	360	240	ND	240
☒ Benzo(b)fluoranthene	ND	230	ND	230	ND	230	320	240	ND	240
☒ Benzo(g,h,i)perylene	ND	230	ND	230	ND	230	ND	240	ND	240
☒ Benzo(k)fluoranthene	ND	230	ND	230	ND	230	ND	240	ND	240
☒ Chrysene	ND	230	ND	230	ND	230	ND	240	ND	240
☒ Dibenzo(a,h)anthracene	ND	230	ND	230	ND	230	ND	240	ND	240
☒ Fluoranthene	ND	230	ND	230	ND	230	550	240	270	240
☒ Fluorene	ND	230	ND	230	ND	230	4,100	240	1,300	240
☒ Indeno(1,2,3- cd)pyrene	ND	230	ND	230	ND	230	290	240	ND	240
☒ Naphthalene	ND	230	ND	230	ND	230	ND	240	ND	240
☒ Phenanthrene	ND	230	ND	230	ND	230	ND	240	ND	240
☒ Pyrene	ND	230	ND	230	ND	230	500	240	250	240
☒ 2-Methylnaphthalene	ND	230	ND	230	ND	230	ND	240	ND	240

BGS = Below Ground Surface
* Collection Method Codes *(List all that aply):* Grab Sample (GS), Split Spoon (SS)m Hand Auger (HA), Geoprobe (GP), Continuous Corer (CC), Soil Gas (SG), Cone Penetrometer (CP), Hydropunch (HP)
*If other (OT) specify here:*_____
MDL = Method Detection Limit
* B = Compound present in method blank.

ATTACHMENT NO. 4
LABORATORY RESULTS-SOIL
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

VOLATILES										
Sample ID	WSW									
Sample Depth (feet BGS)	4.0									
Date Collected	4/15/96									
Date Extracted										
Date Analyzed	5/3/96									
Analytical Method No.	8310									
Collection Method*	GS									
CONSTITUENT (ug/kg)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Acenaphthene	ND	230								
☒Acenaphthylene	ND	230								
☒ Anthracene	ND	230								
☒ Benzo(a)anthracene	ND	230								
☒ Benzo(a)pyrene	ND	230								
☒ Benzo(b)fluoranthene	ND	230								
☒ Benzo(g,h,i)perylene	ND	230								
☒ Benzo(k)fluoranthene	ND	230								
☒ Chrysene	ND	230								
☒ Dibenzo(a,h)anthracene	ND	230								
☒ Fluoranthene	ND	230								
☒ Fluorene	470	230								
☒ Indeno(1,2,3- cd)pyrene	ND	230								
☒ Naphthalene	ND	230								
☒ Phenanthrene	ND	230								
☒ Pyrene	ND	230								
☒ 2-Methylnaphthalene	ND	230								

BGS = Below Ground Surface
* Collection Method Codes *(List all that aply):* Grab Sample (GS), Split Spoon (SS)m Hand Auger (HA), Geoprobe (GP), Continuous Corer (CC), Soil Gas (SG), Cone Penetrometer (CP), Hydropunch (HP)
*If other (OT) specify here:*_____
MDL = Method Detection Limit
* B = Compound present in method blank.

FINAL ASSESSMENT REPORT (CONTINUED)

ATTACHMENT NO. 4
LABORATORY RESULTS - SOIL
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

METALS										
Sample ID	BS-1		BS-2		NSW		SSW		ESW	
Sample Depth (feet BGS)	8.0		8.0		4.0		4.0		4.0	
Date Collected	4/15/96		4/15/96		4/15/96		4/15/96		4/15/96	
Date Extracted										
Date Analyzed	4/27/96		4/27/96		4/27/96		4/27/96		4/27/96	
Analytical Method No.	7131/7191/7421		7131/7191/7421		7131/7191/7421		7131/7191/7421		7131/7191/7421	
Collection Method*	GS		GS		GS		GS		GS	
CONSTITUENT (ug/kg)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Cadmium	140	20	90	20	80	20	190	20	210	20
☐ Chromium III										
☒ Chromium VI	17,800	450	16,400	460	50,300	2,330	50,300	2,390	47,300	2,360
☒ Total Lead	4,570	110	4,850	120	5,500	120	15,400	240	31,600	240
METALS										
Sample ID	WSW		PH-4		PH-6		PH-7			
Sample Depth (feet BGS)	4.0		2-4		2-4		2-4			
Date Collected	4/15/96		10/17/96		10-18/96		10/18/96			
Date Extracted										
Date Analyzed	4/27/96		10/29/96		10/29/96		10/29/96			
Analytical Method No.	7131/4191/7421		7191		7191		7191			
Collection Method*	GS		GP		GP		GP			
CONSTITUENT (ug/kg)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Cadmium	60	20								
☐ Chromium III										
☒ Chromium VI	39,400	2,310	15,200	470	20,900	470	44,700	2,340		
☒ Total Lead	5,110	120								

BGS = Below Ground Surface
* Collection Method Codes *(List all that aply):* Grab Sample (GS), Split Spoon (SS)m Hand Auger (HA), Geoprobe (GP), Continuous Corer (CC), Soil Gas (SG), Cone Penetrometer (CP), Hydropunch (HP)
*If other (OT) specify here:*_____
MDL = Method Detection Limit
* B = Compound present in method blank.

FINAL ASSESSMENT REPORT (CONTINUED)

ATTACHMENT NO. 4
LABORATORY RESULTS - SOIL
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

PCBs										
Sample ID	BS-1		BS-2		NSW		SSW		ESW	
Sample Depth (feet BGS)	8.0		8.0		4.0		4.0		4.0	
Date Collected	4/15/96		4/15/96		4/15/96		4/15/96		4/15/96	
Date Extracted										
Date Analyzed	4/29/96		4/29/96		4/29/96		4/29/96		4/29/96	
Analytical Method No.	8080		8080		8080		8080		8080	
Collection Method*	GS		GS		GS		GS		GS	
CONSTITUENT (ug/kg)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Aroclor 1016	ND	220	ND	230	ND	230	ND	240	ND	240
☒ Aroclor 1221	ND	220	ND	230	ND	230	ND	240	ND	240
☒ Aroclor 1232	ND	220	ND	230	ND	230	ND	240	ND	240
☒ Aroclor 1242	ND	220	ND	230	ND	230	ND	240	ND	240
☒ Aroclor 1248	ND	220	ND	230	ND	230	ND	240	ND	240
☒ Aroclor 1254	ND	220	ND	230	ND	230	ND	240	ND	240
☒ Aroclor 1260	ND	220	ND	230	ND	230	ND	240	ND	240

PCBs										
Sample ID	WSW									
Sample Depth (feet BGS)	4.0									
Date Collected	4/15/96									
Date Extracted										
Date Analyzed	4/29/96									
Analytical Method No.	8080									
Collection Method*	GS									
CONSTITUENT (ug/kg)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Aroclor 1016	ND	230								
☒ Aroclor 1221	ND	230								
☒ Aroclor 1232	ND	230								
☒ Aroclor 1242	ND	230								
☒ Aroclor 1248	ND	230								
☒ Aroclor 1254	ND	230								
☒ Aroclor 1260	ND	230								

BGS = Below Ground Surface
* Collection Method Codes *(List all that aply):* Grab Sample (GS), Split Spoon (SS)m Hand Auger (HA), Geoprobe (GP), Continuous Corer (CC), Soil Gas (SG), Cone Penetrometer (CP), Hydropunch (HP)
*If other (OT) specify here:*_____
MDL = Method Detection Limit
* B = Compound present in method blank.

ATTACHMENT NO. 4
LABORATORY RESULTS - SOIL
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

HALOGENATED HYDROCARBONS										
Sample ID	BS-1		BS-2		NSW		SSW		ESW	
Sample Depth (feet BGS)	8.0		8.0		4.0		4.0		4.0	
Date Collected	4/15/96		4/15/96		4/15/96		4/15/96		4/15/96	
Date Extracted										
Date Analyzed	4/27/96		4/27/96		4/28/96		4/27/96		4/27/96	
Analytical Method No.	8010		8010		8010		8010		8010	
Collection Method*	GS		GS		GS		GS		GS	
CONSTITUENT (ug/kg)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Dichlorodifluoromethane	ND	1	ND	1	ND	1	ND	1	ND	1
☒ Chloromethane	ND	0.80	ND	0.80	ND	0.80	ND	0.80	ND	0.80
☒ Vinyl Chloride	ND	1.80	ND	1.80	ND	1.80	ND	1.80	ND	1.80
☒ Bromomethane	ND	1	ND	1	ND	1	ND	1	ND	1
☒ Chloroethane	ND	5.20	ND	5.20	ND	5.20	ND	5.20	ND	5.20
☒ Trichlorofluoromethane	ND	1.00	ND	1.00	ND	1.00	ND	1.00	ND	1.00
☒ 1,1-Dichloroethene	ND	1.30	ND	1.30	ND	1.30	ND	1.30	ND	1.30
☒ Methylene Chloride	6 B	0.80	4 B	0.80	8 B	0.80	5 B	0.80	4 B	0.80
☒ trans-1,2-Dichloroethene	ND	1.00	ND	1.00	ND	1.00	ND	1.00	ND	1.00
☒ 1,1-Dichloroethane	ND	0.70	ND	0.70	ND	0.70	ND	0.70	ND	0.70
☒ Chloroform	ND	0.50	ND	0.50	ND	0.50	ND	0.50	ND	0.50
☒ 1,1,1-Trichloroethane	ND	0.30	ND	0.30	ND	0.30	ND	0.30	ND	0.30
☒ Carbon Tetrachloride	ND	1.20	ND	1.20	ND	1.20	ND	1.20	ND	1.20
☒ 1,2-Dichloroethane	ND	0.30	ND	0.30	ND	0.30	ND	0.30	ND	0.30
☒Trichloroethene	ND	1.20	ND	1.20	ND	1.20	ND	1.20	ND	1.20
☒ 1,2-Dichloropropane	ND	0.40	ND	0.40	ND	0.40	ND	0.40	ND	0.40
☒ Bromodichloromethane	ND	1.00	ND	1.00	ND	1.00	ND	1.00	ND	1.00
☒ cis-1,3-Dichloropropene	ND	1.00	ND	1.00	ND	1.00	ND	1.00	ND	1.00
☒ trans-1,3-Dichloropropene	ND	3.40	ND	3.40	ND	3.40	ND	3.40	ND	3.40
☒ 1,1,2-Trichloroethane	ND	0.20	ND	0.20	ND	0.20	ND	0.20	ND	0.20
☒ Tetrachloroethene	ND	0.30	ND	0.30	ND	0.30	ND	0.30	1	0.30
☒ Dibromochloromethane	ND	0.90	ND	0.90	ND	0.90	ND	0.90	ND	0.90
☒ Chlorobenzene	ND	2.50	ND	2.50	ND	2.50	ND	2.50	ND	2.50
☒ Bromoform	ND	2.00	ND	2.00	ND	2.00	ND	2.00	ND	2.00
☒ 1,1,2,2-Tetrachloroethane	ND	0.30	ND	0.30	ND	0.30	ND	0.30	ND	0.30
☒ 1,3-Dichlorobenzene	ND	3.20	ND	3.20	ND	3.20	ND	3.20	ND	3.20
☒ 1,4-Dichlorobenzene	ND	2.40	ND	2.40	ND	2.40	ND	2.40	ND	2.40
☒ 1,2-Dichlorobenzene	ND	1.50	ND	1.50	ND	1.50	ND	1.50	ND	1.50

BGS = Below Ground Surface
* Collection Method Codes *(List all that aply):* Grab Sample (GS), Split Spoon (SS)m Hand Auger (HA), Geoprobe (GP), Continuous Corer (CC), Soil Gas (SG), Cone Penetrometer (CP), Hydropunch (HP)
*If other (OT) specify here:*_____
MDL = Method Detection Limit
* B = Compound present in method blank.

ATTACHMENT NO. 4
LABORATORY RESULTS - SOIL
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

HALOGENATED HYDROCARBONS										
Sample ID	WSW									
Sample Depth (feet BGS)	4.0									
Date Collected	4/15/96									
Date Extracted										
Date Analyzed	4/27/96									
Analytical Method No.	8010									
Collection Method*	GS									
CONSTITUENT (ug/kg)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Dichlorodifluoromethane	ND	1								
☒ Chloromethane	ND	0.80								
☒ Vinyl Chloride	ND	1.80								
☒ Bromomethane	ND	1								
☒ Chloroethane	ND	5.20								
☒ Trichlorofluoromethane	ND	1.00								
☒ 1,1-Dichloroethene	ND	1.30								
☒ Methylene Chloride	6 B	0.80								
☒ trans-1,2-Dichloroethene	ND	1.00								
☒ 1,1-Dichloroethane	ND	0.70								
☒ Chloroform	ND	0.50								
☒ 1,1,1-Trichloroethane	ND	0.30								
☒ Carbon Tetrachloride	ND	1.20								
☒ 1,2-Dichloroethane	ND	0.30								
☒Trichloroethene	ND	1.20								
☒ 1,2-Dichloropropane	ND	0.40								
☒ Bromodichloromethane	ND	1.00								
☒ cis-1,3-Dichloropropene	ND	1.00								
☒ trans-1,3-Dichloropropene	ND	3.40								
☒ 1,1,2-Trichloroethane	ND	0.20								
☒ Tetrachloroethene	ND	0.30								
☒ Dibromochloromethane	ND	0.90								
☒ Chlorobenzene	ND	2.50								
☒ Bromoform	ND	2.00								
☒ 1,1,2,2-Tetrachloroethane	ND	0.30								
☒ 1,3-Dichlorobenzene	ND	3.20								
☒ 1,4-Dichlorobenzene	ND	2.40								
☒ 1,2-Dichlorobenzene	ND	1.50								

BGS = Below Ground Surface
* Collection Method Codes *(List all that aply):* Grab Sample (GS), Split Spoon (SS)m Hand Auger (HA), Geoprobe (GP), Continuous Corer (CC), Soil Gas (SG), Cone Penetrometer (CP), Hydropunch (HP)
*If other (OT) specify here:*_____
MDL = Method Detection Limit
* B = Compound present in method blank.

ATTACHMENT NO. 5
TIER I RBSL/TIER II OR TIER III SSTL COMPARISON TABLE FOR SOILS
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

☒ **Residential** ☐ **Commercial III** ☐ **Commercial IV** ☐ **Industrial**

Exposure Codes

A. Direct Contact **B. Soil Leaching to Potable Groundwater**

Contaminant	Sample ID with Maximum Detected Concentration	Corresponding Sample Date	Maximum Detected Concentration (ug/kg)	Applicable Criterion with Exposure Codes (ug/kg)		Criterion Exceeded? (Yes or No)	
				Tier I RBSL (A)	Tier II/III SSTL	Tier I RBSL	Tier II/III SSTL
VOLATILES							
☒ Benzene	S-3 (2.5)	4/18/96	28,000	88,000		NO	
☒ Toluene	PH-2 (2-4)	10/17/96	160,000	620,000 *		NO	
☒ Ethylbenzene	S-2 (2.5)	4/18/96	150,000	380,000 *		NO	
☒ Total Xylenes	S-2 (2.5)	4/18/96	510,000	400,000 *		YES	
☒ MTBE	PH-2 (2-4)	10/17/96	18,000	3,600,000		NO	
POLYNUCLEAR AROMATICS (PNAs)							
☒ Acenaphthene	ALL	4/15/96	ND (240)	76,000,000		NO	
☒ Acenaphthylene	ALL	4/15/96	ND (240)	1,500,000		NO	
☒ Anthracene	ALL	4/15/96	ND (240)	420,000,000		NO	
☒ Benzo(a)anthracene	SSW (4.0)	4/15/96	320	14,000		NO	
☒ Benzo(a)pyrene	SSW (4.0)	4/15/96	360	1,400		NO	
☒ Benzo(b)fluoranthene	SSW (4.0)	4/15/96	320	14,000		NO	
☒ Benzo(g,h,i)perylene	ALL	4/15/96	ND (240)	1,500,000		NO	
☒ Benzo(k)fluoranthene	ALL	4/15/96	ND (240)	140,000		NO	
☒ Chrysene	ALL	4/15/96	ND (240)	1,400,000		NO	
☒ Dibenzo(a,h)anthracene	ALL	4/15/96	ND (240)	1,400		NO	
☒ Fluoranthene	SSW (4.0)	4/15/96	550	51,000,000		NO	
☒ Fluorene	SSW (4.0)	4/15/96	4,100	25,000,000		NO	
☒ Indeno(1,2,3- cd)pyrene	SSW (4.0)	4/15/96	290	14,000		NO	
☒ Naphthalene	ALL	4/15/96	ND (240)	15,000,000		NO	
☒ Phenanthrene	ALL	4/15/96	ND (240)	1,500,000		NO	
☒ Pyrene	SSW (4.0)	4/15/96	500	32,000,000		NO	
☒ 2-Methylnaphthalene	ALL	4/15/96	ND (240)	15,000,000		NO	

* No Direct Contact Criteria is available; Soil Saturation Criteria from Operational Memorandum #4 were utilized.

ATTACHMENT NO. 5
TIER I RBSL/TIER II OR TIER III SSTL COMPARISON TABLE FOR SOILS
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

☒ **Residential** ☐ **Commercial III** ☐ **Commercial IV** ☐ **Industrial**

Exposure Codes

A. Direct Contact **B. Soil Leaching to Potable Groundwater**

Contaminant	Sample ID with Maximum Detected Concentration	Corresponding Sample Date	Maximum Detected Concentration (ug/kg)	Applicable Criterion with Exposure Codes (ug/kg)		Criterion Exceeded? (Yes or No)	
				Tier I RBSL (A)	Tier II/III SSTL	Tier I RBSL	Tier II/III SSTL
METALS							
☒ Cadmium	ESW (4.0)	4/15/96	210	210,000		NO	
☐ Chromium III							
☒ Chromium VI	NSW/SSW (4.0)	4/15/96	50,300	2,000, 000		NO	
☒ Total Lead	ESW (4.0)	4/15/96	31,600	400,000		NO	
PCBs							
☒ Aroclor 1016	ALL	4/15/96	ND (240)	330 *		NO	
☒ Aroclor 1221	ALL	4/15/96	ND (240)	330 *		NO	
☒ Aroclor 1232	ALL	4/15/96	ND (240)	330 *		NO	
☒ Aroclor 1242	ALL	4/15/96	ND (240)	330 *		NO	
☒ Aroclor 1248	ALL	4/15/96	ND (240)	330 *		NO	
☒ Aroclor 1254	ALL	4/15/96	ND (240)	330 *		NO	
☒ Aroclor 1260	ALL	4/15/96	ND (240)	330 *		NO	

* - The Method Detection Limit of 330 ug/kg is the default RBSL value.

ATTACHMENT NO. 5
TIER I RBSL/TIER II OR TIER III SSTL COMPARISON TABLE FOR SOILS
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

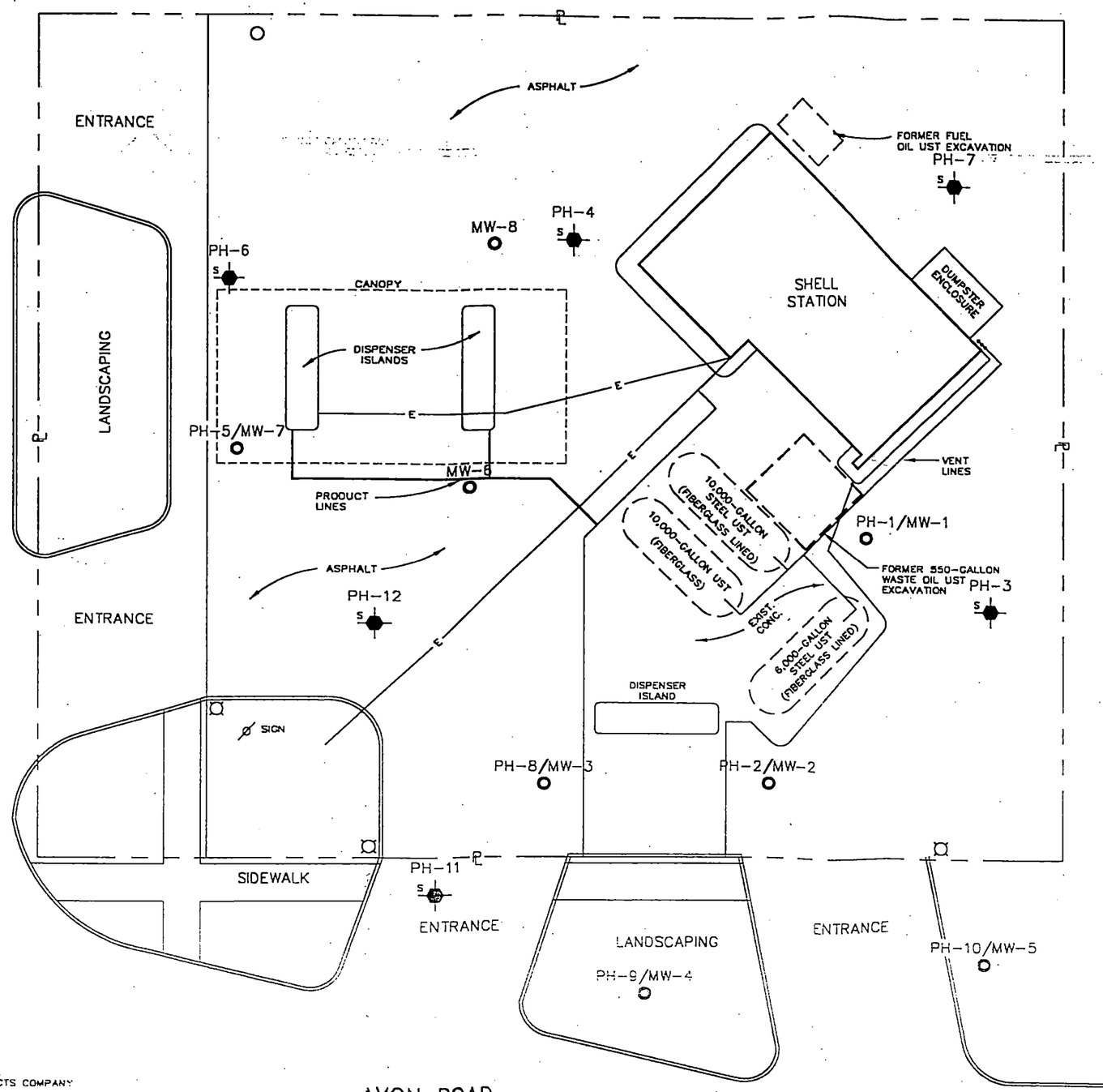
☒ **Residential** ☐ **Commercial III** ☐ **Commercial IV** ☐ **Industrial**

Exposure Codes

A. Direct Contact **B. Soil Leaching to Potable Groundwater**

Contaminant	Sample ID with Maximum Detected Concentration	Corresponding Sample Date	Maximum Detected Concentration (ug/kg)	Applicable Criterion with Exposure Codes (ug/kg)		Criterion Exceeded? (Yes or No)	
				Tier I RBSL (A)	Tier II/III SSTL	Tier I RBSL	Tier II/III SSTL
HALOGENATED HYDROCARBONS							
CONSTITUENT (ug/kg)							
☒ Dichlorodifloromethane	ALL	4/15/96	ND (1)	3,500,000		NO	
☒ Chloromethane	ALL	4/15/96	ND (.8)	200,000		NO	
☒ Vinyl Chloride	ALL	4/15/96	ND (1.8)	1,200		NO	
☒ Bromomethane	ALL	4/15/96	ND (1)	150,000		NO	
☒ Chloroethane	ALL	4/15/96	ND (5.20)	670,000		NO	
☒ Trichlorofluoromethane	ALL	4/15/96	ND (1)	1,500,000		NO	
☒ 1,1-Dichloroethene	ALL	4/15/96	ND (1.3)	110,000		NO	
☒ Methylene Chloride	NSW (4.0)	4/15/96	8 (B) *	340,000		NO	
☒ trans-1,2-Dichloroethene	ALL	4/15/96	ND (1.0)	1,900,000		NO	
☒ 1,1-Dichloroethane	ALL	4/15/96	ND (.7)	1,100,000		NO	
☒ Chloroform	ALL	4/15/96	ND (.5)	420,000		NO	
☒ 1,1,1-Trichloroethane	ALL	4/15/96	ND (.3)	1,100,000		NO	
☒ Carbon Tetrachloride	ALL	4/15/96	ND (1.2)	20,000		NO	
☒ 1,2-Dichloroethane	ALL	4/15/96	ND (.3)	28,000		NO	
☒Trichloroethene	ALL	4/15/96	ND (1.2)	160,000		NO	
☒ 1,2-Dichloropropane	ALL	4/15/96	ND (0.4)	38,000		NO	
☒ Bromodichloromethane	ALL	4/15/96	ND (1.0)	41,000		NO	
☒ cis-1,3-Dichloropropene	ALL	4/15/96	ND (1.0)	14,000		NO	
☒ trans-1,3-Dichloropropene	ALL	4/15/96	ND (3.4)	14,000		NO	
☒ 1,1,2-Trichloroethane	ESW (4.0)	4/15/96	ND (0.2)	45,000		NO	
☒ Tetrachloroethene	ALL	4/15/96	1	50,000		NO	
☒ Dibromochloromethane	ALL	4/15/96	ND (0.9)	31,000		NO	
☒ Chlorobenzene	ALL	4/15/96	ND (2.5)	660,000		NO	
☒ Bromoform	ALL	4/15/96	ND(2.0)	320,000		NO	
☒ 1,1,2,2-Tetrachloroethane	ALL	4/15/96	ND (0.3)	13,000		NO	
☒ 1,3-Dichlorobenzene	ALL	4/15/96	ND(3.2)	10,000,000		NO	
☒ 1,4-Dichlorobenzene	ALL	4/15/96	ND (2.4)	110,000		NO	
☒1,2-Dichlorobenzene	ALL	4/15/96	ND (1.5)	590,000		NO	

* - (B) Compound present in laboratory method blank.



0 10 20
SCALE IN FEET

LEGEND

- PROPERTY BOUNDARY
- UST UNDERGROUND STORAGE TANK
- AREA LIGHT
- —E— ELECTRICAL CONDUIT RUNS
- PROBEHOLE (PH)
- MONITORING WELL (MW)
- FORMER POTABLE GROUNDWATER WELL

BASEMAP SOURCE:
SHELL OIL PRODUCTS COMPANY
CR-979
DATE: 5/25/79

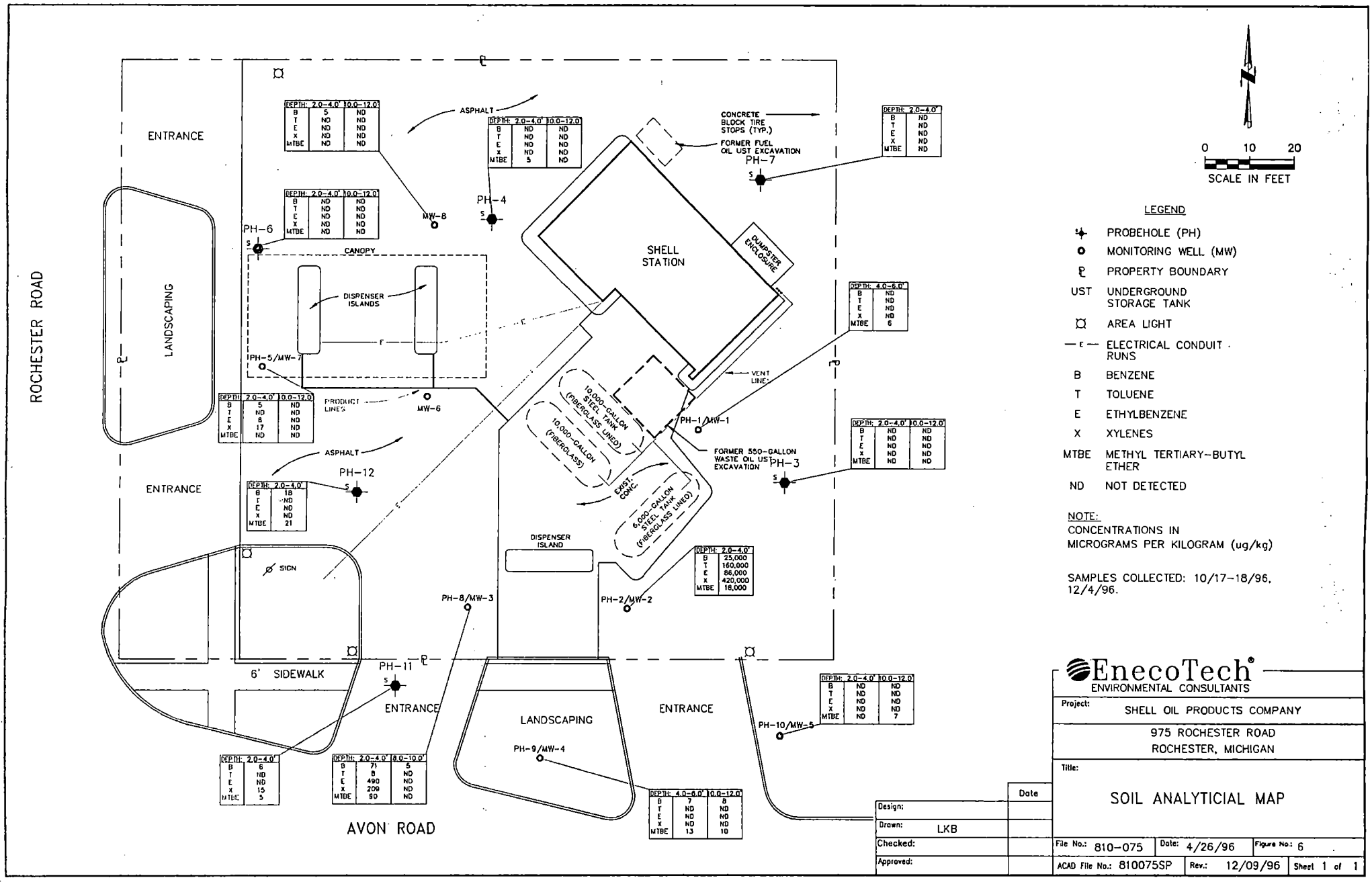
EnecoTech®
ENVIRONMENTAL CONSULTANTS

Project:
SHELL OIL PRODUCTS COMPANY
975 ROCHESTER ROAD
ROCHESTER, MICHIGAN

Title:
SITE MAP

		Date
Design:	DDB	4/96
Drawn:	LKB	4/96
Checked:		
Approved:		

File No.: 810-075 Date: 4/26/96 Figure No.
ACAD File No.: 810075SP Rev 2/97 Sheet



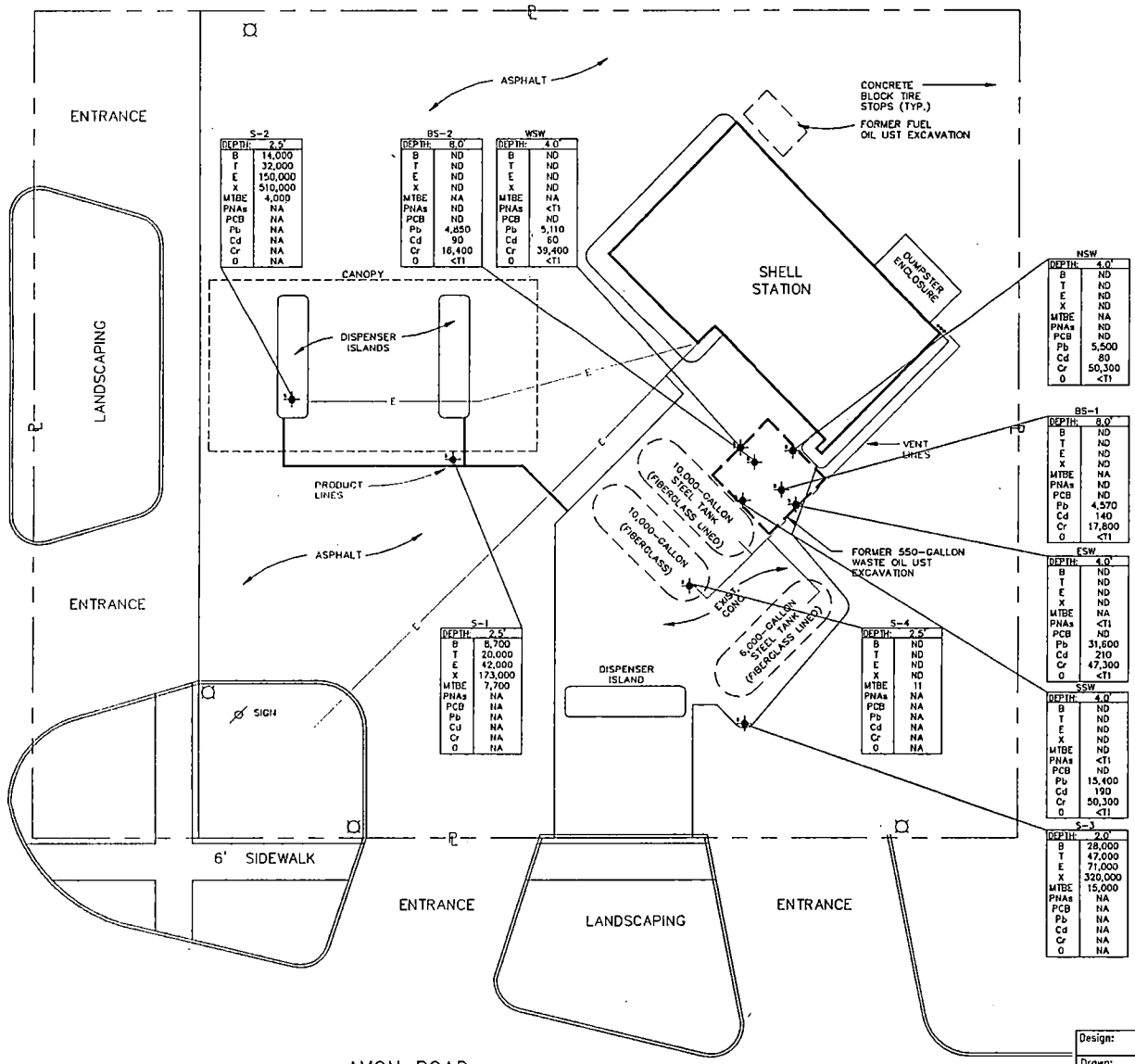
EnecoTech®
ENVIRONMENTAL CONSULTANTS

Project: SHELL OIL PRODUCTS COMPANY
975 ROCHESTER ROAD
ROCHESTER, MICHIGAN

Title: SOIL ANALYTICIAL MAP

		Date
Design:		
Drawn:	LKB	
Checked:		
Approved:		

File No.: 810-075 | Date: 4/26/96 | Figure No.: 6
ACAD File No.: 810075SP | Rev.: 12/09/96 | Sheet 1 of 1



0 10 20
SCALE IN FEET

LEGEND

✦	SAMPLE LOCATION
℄	PROPERTY BOUNDARY
UST	UNDERGROUND STORAGE TANK
☐	AREA LIGHT
—E—	ELECTRICAL CONDUIT RUNS
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	XYLENES
MTBE	METHYL TERTIARY BUTYL ETHER
PNAs	POLYNUCLEAR AROMATIC HYDROCARBONS
PCB	POLYCHLORINATED BIPHENYLS
Pb	LEAD
Cd	CADMIUM
Cr	CHROMIUM
O	ORGANIC SOLVENTS
ND	NOT DETECTED
NA	NOT ANALYZED
<T1	BELOW TIER 1 RESIDENTIAL CRITERIA

NOTE

CONCENTRATIONS IN MICROGRAMS PER KILOGRAM (ug/kg)

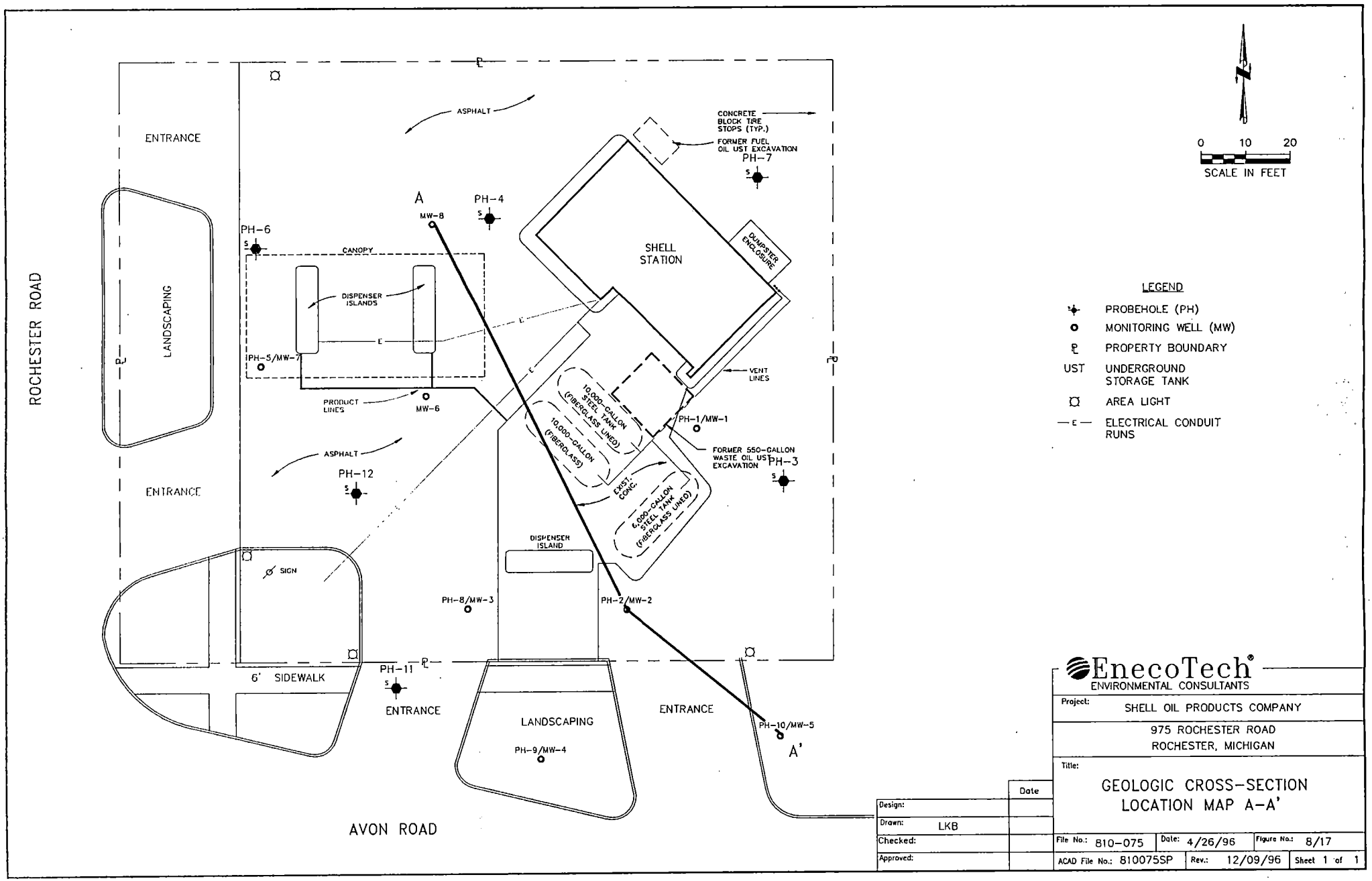
EnecoTech®
ENVIRONMENTAL CONSULTANTS

Project: SHELL OIL PRODUCTS COMPANY
975 ROCHESTER ROAD
ROCHESTER, MICHIGAN

Title:
SOIL ANALYTICIAL MAP (UST REMOVAL/LINE UPGRADE)

	Date
Design:	
Drawn: LKB	
Checked:	
Approved:	

File No.: 810-075 | Date: 4/26/96 | Figure No.: 6/7
ACAD File No.: 810075SP | Rev.: 12/09/96 | Sheet 1 of 1



EnecoTech®
ENVIRONMENTAL CONSULTANTS

Project:	SHELL OIL PRODUCTS COMPANY
	975 ROCHESTER ROAD ROCHESTER, MICHIGAN
Title:	GEOLOGIC CROSS-SECTION LOCATION MAP A-A'

		Date
Design:		
Drawn:	LKB	
Checked:		
Approved:		

File No.: 810-075	Date: 4/26/96	Figure No.: 8/17	
ACAD File No.: 810075SP	Rev.: 12/09/96	Sheet 1 of 1	

DEQ MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY - UNDERGROUND STORAGE TANK DIVISION

LEAKING UNDERGROUND STORAGE TANK SUPPLEMENTAL REPORT COVER SHEET

Authorized by the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), Part 213.

INSTRUCTIONS: Complete this form with all applicable information. Attach this form to all supplemental LUST submittals; this includes all reports other than the Initial Assessment, Final Assessment, and Closure Reports. The Certified Underground Storage Tank Professional (CP) MUST sign below.

IDENTIFY TYPE OF SUPPLEMENTAL REPORT:

FACILITY NAME: Shell Service Station	FACILITY ID NUMBER: 0-009055
STREET ADDRESS: 975 Rochester Road	MERA SITE ID NUMBER:
CITY: Rochester STATE: MI ZIP CODE: 48037	COUNTY: Oakland
DATE(S) RELEASE(S) DISCOVERED: 4/08/96 (Waste Oil) 4/24/96 (Gasoline)	CONFIRMED RELEASE NUMBER(S): C-214-96 (Waste Oil) C-252-96 (Gasoline)
O/O NAME: Shell Oil Products Company	MUSTFA CLAIM NUMBER: NA
O/O STREET ADDRESS: 17370 Laurel Park Drive N., Suite 200, Livonia STATE: MI ZIP CODE: 48152	
CONTACT PERSON: Ms. Angela Porter	PHONE NUMBER: (313) 953-4300

ANSWER ALL QUESTIONS

1. Type(s) of product released: Waste Oil (4/08/96); Gasoline (4/24/96)
2. Free product present: a. Currently? ___ YES _X_ NO If YES, total gallons recovered since last report:
   b. Previously? ___ YES _X_ NO If YES, total gallons recovered to date:
3. Have vapors been identified in any confined spaces (basement, sewers)? ___ YES _X_ NO
4. Estimated depth to groundwater: ~ 3.0 feet Estimated groundwater flow direction: south
5. Estimated distance and direction from point of release to nearest:
   a. Private well: 150 feet south b. Municipal well: <0.5 mile c. Surface water/wetland: >0.5 mile
6. Since last report: a. cubic yards of soil remediated: 0 b. gallons of groundwater remediated: 0
7. Totals to date: a. cubic yards of soil remediated: 40 b. gallons of groundwater remediated: 0
8. 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 July 28, 1997.
(date submitted-Required)

Andrew J. Foerg — 7-28-97
CP Original Signature - Required — Date

Darryl D. Barricklow
PRINT QC Project Manager's Name

Andrew J. Foerg, P.G.
PRINT CP's Name

EnecoTech Midwest, Inc.
NAME OF CONSULTING FIRM

39255 Country Club Drive, Suite B-40, Farmington Hills, Michigan 48331
ADDRESS

(248) 489-0809 — PHONE NO.
(248) 489-4184 — FAX NO.

JUL 31 1997
UNDERGROUND STORAGE TANK DIV
SENT DISTRICT OFFICE

Please return this completed report cover sheet and associated attachments to the appropriate USTD District Office listed on the back of this page.

EQP3849 (2/96)

UNDERGROUND STORAGE TANK DIVISION OFFICES AND LOCATIONS

Determine in which county the UST release occurred. Return all completed forms and associated reports to the USTD office listed next to that county in the following table. Addresses for the USTD offices are listed below.

COUNTY	USTD OFFICE	COUNTY	USTD OFFICE	COUNTY	USTD OFFICE	COUNTY	USTD OFFICE
Alcona	Grayling	Dickinson	Marquette	Lake	Grayling	Oceana	Grand Rapids
Alger	Marquette	Eaton	Shiawassee	Lapeer	Shiawassee	Ogemaw	Grayling
Allegan	Plainwell	Emmet	Grayling	Leelanau	Grayling	Ontonagon	Marquette
Alpena	Grayling	Genesee	Shiawassee	Lenawee	Jackson	Osceola	Grayling
Antrim	Grayling	Gladwin	Grayling	Livingston	Shiawassee	Oscoda	Grayling
Arenac	Grayling	Gogebic	Marquette	Luce	Marquette	Otsego	Grayling
Baraga	Marquette	Grand Traverse	Grayling	Mackinac	Marquette	Ottawa	Grand Rapids
Barry	Plainwell	Gratiot	Shiawassee	Macomb	SE Michigan	Presque Isle	Grayling
Bay	Saginaw-Bay	Hillsdale	Jackson	Manistee	Grayling	Roscommon	Grayling
Benzie	Grayling	Houghton	Marquette	Marquette	Marquette	Saginaw	Saginaw-Bay
Berrien	Plainwell	Huron	Saginaw-Bay	Mason	Grayling	Sanilac	Saginaw-Bay
Branch	Jackson	Ingham	Shiawassee	Mecosta	Grand Rapids	Schoolcraft	Marquette
Calhoun	Jackson	Ionia	Grand Rapids	Menominee	Marquette	Shiawassee	Shiawassee
Cass	Plainwell	Iosco	Grayling	Midland	Saginaw-Bay	St Clair	SE Michigan
Charlevoix	Grayling	Iron	Marquette	Missaukee	Grayling	St Joseph	Plainwell
Cheboygan	Grayling	Isabella	Saginaw-Bay	Monroe	SE Michigan	Tuscola	Saginaw-Bay
Chippewa	Marquette	Jackson	Jackson	Montcalm	Grand Rapids	Van Buren	Plainwell
Clare	Grayling	Kalamazoo	Plainwell	Montmorency	Grayling	Washtenaw	Jackson
Clinton	Shiawassee	Kalkaska	Grayling	Muskegon	Grand Rapids	Wayne	SE Michigan
Crawford	Grayling	Kent	Grand Rapids	Newaygo	Grand Rapids	Wexford	Grayling
Delta	Marquette	Keweenaw	Marquette	Oakland	SE Michigan		

CADILLAC OFFICE
ROUTE #1 8015 MACKINAW TRAIL
CADILLAC MI 49601

616-775-9727 (PHONE)
616-775-9671 (FAX)

JACKSON OFFICE
301 E LOUIS GLICK HIGHWAY
JACKSON MI 49201

517-780-7900 (PHONE)
517-780-7855 (FAX)

SAGINAW BAY OFFICE
503 N EUCLID AVE SUITE 9
BAY CITY MI 48706

517-684-9141 (PHONE)
517-684-9799 (FAX)

GAYLORD OFFICE
P0 BOX 667
GAYLORD MI 49735

517-732-3541 (PHONE)
517-732-0794 (FAX)

MARQUETTE OFFICE
1990 US 41 SOUTH
MARQUETTE MI 49855

906-228-6561 (PHONE)
906-228-5245 (FAX)

SHIAWASSEE OFFICE
10650 BENNETT DR
MORRICE MI 48857-9792

517-625-4600 (PHONE)
517-625-5000 (FAX)

GRAND RAPIDS OFFICE
350 OTTAWA ST NW
GRAND RAPIDS MI 49503

616-456-5071 (PHONE)
616-456-1239 (FAX)

PLAINWELL OFFICE
1342 SR-89 SUITE B
PLAINWELL MI 49080-1915

616-692-2120 (PHONE)
616-692-3050 (FAX)

SE MICHIGAN OFFICE
38980 SEVEN MILE RD
LIVONIA MI 48152

313-953-0241 (PHONE)
313-432-1295 (FAX)

GRAYLING OFFICE
1955 NORTH I-75 BL
GRAYLING MI 49738

517-348-6371 (PHONE)
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EnecoTech
ENVIRONMENTAL CONSULTANTS

July 28, 1997

Mr. Paul Owens
Michigan Department of Environmental Quality
Underground Storage Tank Division
38980 Seven Mile Road
Livonia, Michigan 48152

0400810075

CERTIFIED MAIL: July 28, 1997 (P 432 168 296)

SUBJECT: **Shell Service Station**
975 Rochester Road
Rochester, Michigan
WIC#: 221-8070-0704

Dear Mr. Owens:

As proposed in the Final Assessment Report dated April 8, 1997, EnecoTech Midwest, Inc. (EnecoTech), on behalf of Shell Oil Products Company (Shell) has prepared the following Monitoring Summary Report for the Michigan Department of Environmental Quality (MDEQ), Underground Storage Tank Division (USTD) for the groundwater monitoring event conducted at the subject site on June 4, 1997.

Scope-of-Work

Activities conducted during the monitoring event included:

- Gauging of groundwater in select monitoring wells for evaluation of groundwater flow direction;
- Purging of select monitoring wells for the collection of groundwater samples;
- Collection and submittal, under chain-of-custody documentation, of groundwater samples for laboratory analysis of benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tertiary-butyl ether (MTBE) using modified USEPA Method 8020A; and
- Screening of utility corridors adjacent to the site by utilizing a photoionization detector to monitor potential organic vapors in utility manways and catch basins.

Summary

Results of the groundwater gauging activity and subsequent evaluation indicate that the groundwater flow at the subject site is generally toward the southeast. A Groundwater Elevation Map is presented in Attachment A, with the Historical Groundwater Elevation Data in presented in Table 1.

Analytical results, depicted on Attachment B, Groundwater Analytical Map, indicate that petroleum hydrocarbon impacts to groundwater are below the Risk Based Corrective Action, Tier I, Groundwater Direct Contact Criteria in all monitoring wells. Laboratory analytical results for groundwater samples collected from monitoring wells MW-2, 3, 6, and 7 indicate a decline in BTEX/MTBE concentrations. Laboratory analytical results for monitoring wells MW-4 and 5 indicate slight increases in BTEX/MTBE concentrations from the December 1996 monitoring event. The general decline in BTEX/MTBE concentrations appears to demonstrate that natural attenuation is occurring at the site.

Results of the organic vapor screening activities, presented in Attachment C, Organic Vapor Screening Results, indicate that potential organic vapors from petroleum hydrocarbon impacts are not measureable in the adjacent utility corridors.

The next scheduled monitoring activity, as specified in the FAR dated April 8, 1997, will be conducted during September 1997. The next scheduled monitoring summary report will be submitted in October 1997.

Should you have any questions. please call our office at (248) 489-0809.

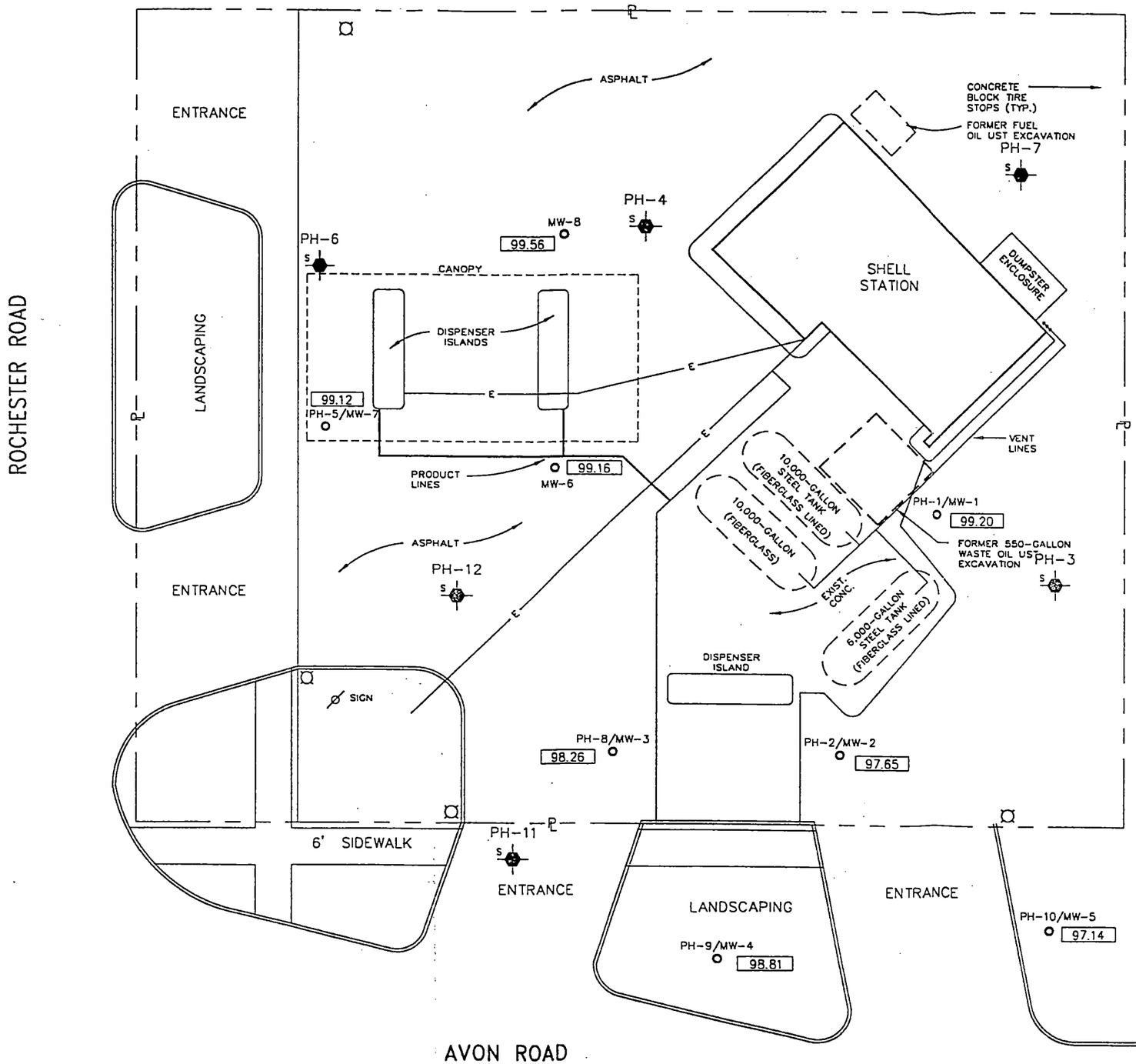
Sincerely,

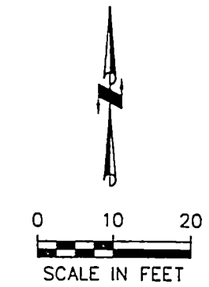
ENECOTECH MIDWEST, INC.

Brian Palys
Senior Staff Geologist

Darryl D. Barricklow
Project Scientist

ATTACHMENT A
Groundwater Elevation Map
and
Groundwater Elevation Data

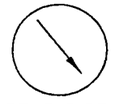




LEGEND

- PROBEHOLE (PH)
- MONITORING WELL (MW)
- PROPERTY BOUNDARY
- UST UNDERGROUND STORAGE TANK
- AREA LIGHT
- ELECTRICAL CONDUIT RUNS
- XX.XX GROUNDWATER ELEVATION 6/4/97

*NOTE: GROUNDWATER FLOW DIRECTION BASED UPON GROUNDWATER ELEVATION DATA IN ON-SITE MONITORING WELLS.



APPARENT DIRECTION OF GROUNDWATER FLOW

EnecoTech®
ENVIRONMENTAL CONSULTANTS

Project:
SHELL OIL PRODUCTS COMPANY
975 ROCHESTER ROAD
ROCHESTER, MICHIGAN

Title:
GROUNDWATER ELEVATION MAP

	Date
Design:	
Drawn: MRP	
Checked:	
Approved:	

File No.: 810-075 | Date: 4/26/96 | Figure No.:
ACAD File No.: 810075SP | Rev.: 4/1/97 | Sheet 1 of 1

TABLE 1

GROUNDWATER ELEVATION DATA

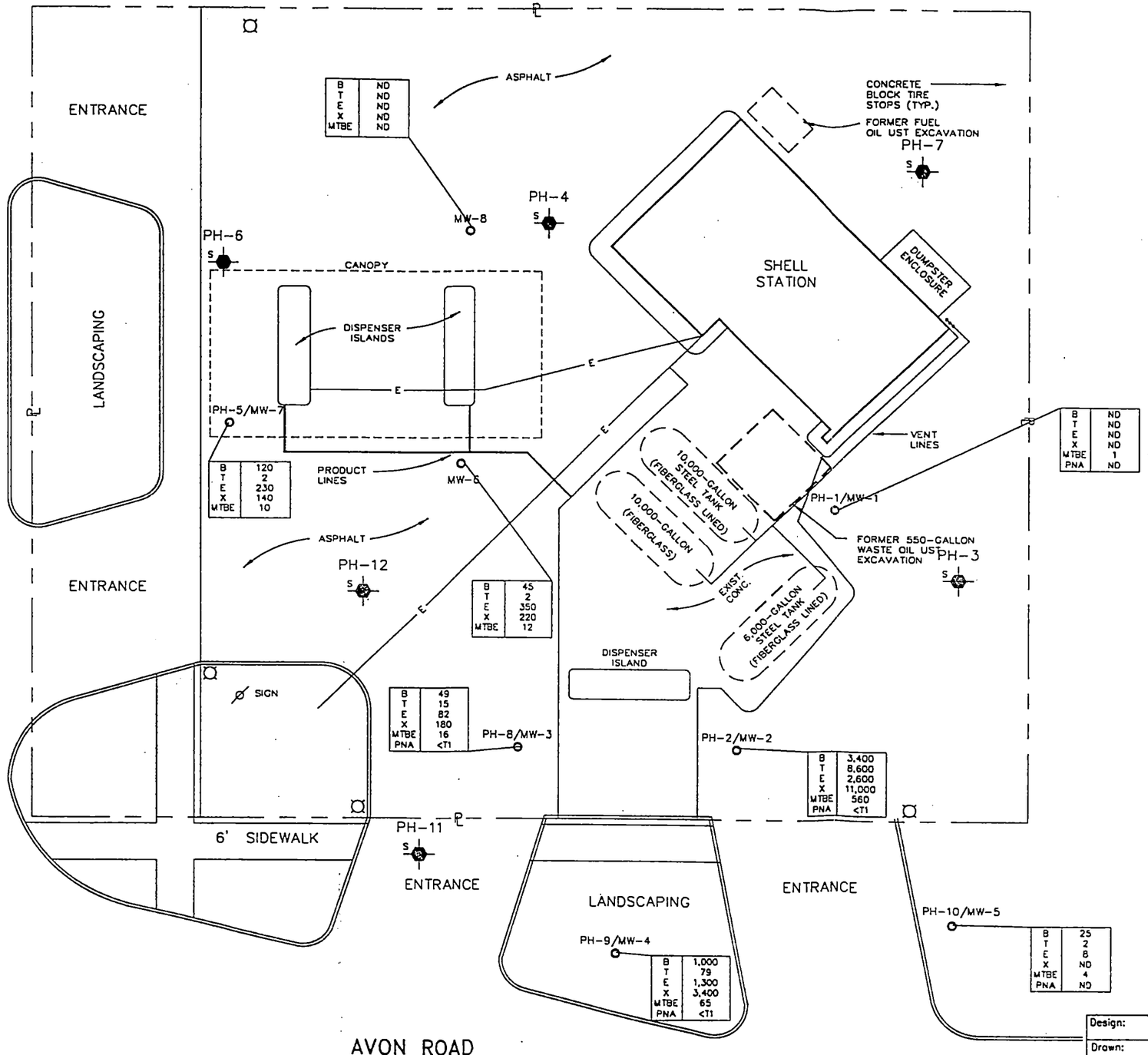
SHELL SERVICE STATION
975 ROCHESTER ROAD
ROCHESTER, MICHIGAN
PROJECT NO. 0400810075

Units = feet

LOCATION	TOC ELEVATION	GAUGING DATE			
		12/9/96		6/4/97	
		DTW	ELEV.	DTW	ELEV.
MW-1	101.40	2.98	98.42	2.20	99.20
MW-2	100.14	2.67	97.47	2.49	97.65
MW-3	100.02	2.48	97.54	1.76	98.26
MW-4	100.44	3.47	96.97	1.63	98.81
MW-5	98.70	2.16	96.54	1.56	97.14
MW-6	101.56	3.18	98.38	2.40	99.16
MW-7	102.00	3.63	98.37	2.88	99.12
MW-8	102.16	2.87	99.29	2.60	99.56

MW = Monitoring Well
DTW = Depth To Water
TOC = Top Of Casing

ATTACHMENT B
Groundwater Analytical Map
and
Historical Groundwater Data



0 10 20

SCALE IN FEET

LEGEND

- PROBEHOLE (PH)
- MONITORING WELL (MW)
- PROPERTY BOUNDARY
- UST — UNDERGROUND STORAGE TANK
- AREA LIGHT
- —E— ELECTRICAL CONDUIT RUNS
- B — BENZENE
- T — TOLUENE
- E — ETHYLBENZENE
- X — XYLENES
- MTBE — METHYL TERTIARY-BUTYL ETHER
- PNAs — POLYNUCLEAR AROMATIC HYDROCARBONS
- <T1 — LESS THAN TIER 1 (DC)
- NS — NOT SAMPLED
- ND — NOT DETECTED

NOTE:
CONCENTRATIONS IN MICROGRAMS PER LITER (ug/L)
SAMPLES COLLECTED 6/4/97.

EnecoTech®
ENVIRONMENTAL CONSULTANTS

Project:
SHELL OIL PRODUCTS COMPANY
975 ROCHESTER ROAD
ROCHESTER, MICHIGAN

Title:
GROUNDWATER ANALYTICIAL MAP

	Date
Design:	
Drawn: LKB	
Checked:	
Approved:	

File No.: 810-075 | Date: 4/26/96 | Figure No.:
ACAD File No.: 810075SP | Rev.: 12/09/96 | Sheet 1 of 1

HISTORICAL GROUNDWATER DATA
LABORATORY RESULTS - GROUNDWATER
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

GROUNDWATER SAMPLING EVENT 10/17/96

VOLATILES										
Sample ID	PH-1 (W)		PH-2 (W)		PH-3 (W)		PH-4 (W)		PH-5 (W)	
Sample Depth (feet BGS)	3-8		3-8		3-8		3-8		3-8	
Date Collected	10/17/96		10/17/96		10/18/96		10/17/96		10/18/96	
Date Extracted										
Date Analyzed	10/22/96		10/26/96		10/22/96		10/22/96		10/28/96	
Analytical Method No.	8020A		8020A		8020A		8020A		8020A	
Collection Method*	GP		GP		GP		GP		GP	
CONSTITUENT (ug/L)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Benzene	ND	1	5,700	100	ND	1	ND	1	130	1
☒ Toluene	ND	1	17,000	100	ND	1	ND	1	2	1
☒ Ethylbenzene	ND	1	3,200	100	ND	1	ND	1	140	1
☒ Total Xylenes	ND	1	16,000	100	ND	1	ND	1	69	1
☒ MTBE	ND	1	130	100	ND	1	ND	1	26	1
VOLATILES										
Sample ID	PH-6 (W)		PH-7 (W)		PH-11 (W)					
Sample Depth (feet BGS)	3-8		3-8		3-8					
Date Collected	10/18/96		10/18/96		10/17/96					
Date Extracted										
Date Analyzed	10/29/96		10/22/96		10/29/96					
Analytical Method No.	8020A		8020A		8020A					
Collection Method*	GP		GP		GP					
CONSTITUENT (ug/L)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Benzene	ND	1	ND	1	ND	1				
☒ Toluene	ND	1	ND	1	1	1				
☒ Ethylbenzene	ND	1	ND	1	ND	1				
☒ Total Xylenes	ND	1	ND	1	ND	1				
☒ MTBE	ND	1	ND	1	10	1				

R:\DOCS\SHELL\810-075\MSR97-7.TBL

BGS = Below Ground Surface
* Collection Method Codes *(List all that apply)*: Grab Sample (GS), Split Spoon (SS), Hand Auger (HA), Geoprobe (GP), Continuous Corer (CC), Soil Gas (SG), Cone Penetrometer (CP), Hydropunch (HP)
If Other (OT), specify here: _____
MDL = Method Detection Limit

HISTORICAL GROUNDWATER
LABORATORY RESULTS - GROUNDWATER
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

GROUNDWATER SAMPLING EVENT 10/17/96

METALS										
Sample ID	PH-1 (W)		PH-2 (W)		PH-3 (W)		PH-4 (W)		PH-7 (W)	
Sample Depth (feet BGS)	3-8		3-8		3-8		3-8		3-8	
Date Collected	10/17/96		10/17/96		10/18/96		10/17/96		10/18/96	
Date Extracted										
Date Analyzed	10/29-30/96		10/29-30/96		10/29-30/96		10/29-30/96		10/29-30/96	
Analytical Method No.	7131/7191/7421		7131/7191/7421		7131/7191/7421		7131/7191/7421		7131/7191/7421	
Collection Method*	GP		GP		GP		GP		GP	
CONSTITUENT (ug/l)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Cadmium	ND	0.2	ND	0.2	ND	0.2	ND	0.2	ND	0.2
☐ Chromium III										
☒ Chromium VI	ND	1	ND	1	ND	1	ND	1	ND	1
☒ Total Lead	ND	1	19	1	ND	1	ND	1	ND	1
METALS										
Sample ID										
Sample Depth (feet BGS)										
Date Collected										
Date Extracted										
Date Analyzed										
Analytical Method No.										
Collection Method*										
CONSTITUENT (ug/kg)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☐ Cadmium										
☐ Chromium III										
☐ Chromium VI										
☐ Total Lead										

BGS = Below Ground Surface
* Collection Method Codes *(List all that apply)*: Grab Sample (GS), Split Spoon (SS), Hand Auger (HA), Geoprobe (GP), Continuous Corer (CC), Soil Gas (SG), Cone Penetrometer (CP), Hydropunch (HP)
If Other (OT), specify here: _____
MDL = Method Detection Limit

HISTORICAL GROUNDWATER DATA
LABORATORY RESULTS-GROUNDWATER
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

GROUNDWATER SAMPLING EVENT 10/17/96

POLYNUCLEAR AROMATICS										
Sample ID	PH-1 (W)		PH-2 (W)		PH-3 (W)		PH-4 (W)		PH-7 (W)	
Sample Depth (feet BGS)	3-8		3-8		3-8		3-8		3-8	
Date Collected	10/17/96		10/17/96		10/18/96		10/17/96		10/18/96	
Date Extracted										
Date Analyzed	10/29/96		10/30/96		11/1/96		10/30/96		11/4/96	
Analytical Method No.	8310		8310		8310		8310		8310	
Collection Method*	GP		GP		GP		GP		GP	
CONSTITUENT (ug/L)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Acenaphthene	ND	5	ND	500	ND	5	ND	5	ND	100
☒Acenaphthylene	ND	5	12,000	500	ND	5	ND	5	200	100
☒ Anthracene	ND	5	ND	500	ND	5	ND	5	ND	100
☒ Benzo(a)anthracene	ND	5	ND	500	ND	5	ND	5	ND	100
☒ Benzo(a)pyrene	ND	5	ND	500	ND	5	ND	5	ND	100
☒ Benzo(b)fluoranthene	ND	5	ND	500	ND	5	ND	5	ND	100
☒ Benzo(g,h,i)perylene	ND	5	ND	500	ND	5	ND	5	ND	100
☒ Benzo(k)fluoranthene	ND	5	ND	500	ND	5	ND	5	ND	100
☒ Chrysene	ND	5	ND	500	ND	5	ND	5	ND	100
☒ Dibenzo(a,h)anthracene	ND	5	ND	500	ND	5	ND	5	ND	100
☒ Fluoranthene	ND	5	ND	500	ND	5	ND	5	ND	100
☒ Fluorene	ND	5	ND	500	ND	5	ND	5	ND	100
☒ Indeno(1,2,3- cd)pyrene	ND	5	ND	500	ND	5	ND	5	ND	100
☒ Naphthalene	ND	5	16,000	500	ND	5	ND	5	710	100
☒ Phenanthrene	ND	5	ND	500	ND	5	ND	5	ND	100
☒ Pyrene	ND	5	ND	500	ND	5	ND	5	ND	100
☒ 2-Methylnaphthalene	ND	5	27,000	500	ND	5	ND	5	420	100

BGS = Below Ground Surface
* Collection Method Codes *(List all that apply)*: Grab Sample (GS), Split Spoon (SS), Hand Auger (HA), Geoprobe (GP), Continuous Corer (CC), Soil Gas (SG), Cone Penetrometer (CP), Hydropunch (HP)
If Other (OT), specify here: _____
MDL = Method Detection Limit

HISTORICAL GROUNDWATER DATA
LABORATORY RESULTS - GROUNDWATER
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

GROUNDWATER SAMPLING EVENT 10/17/96

HALOGENATED HYDROCARBONS										
Sample ID	PH-1 (W)		PH-2 (W)		PH-3 (W)		PH-4 (W)		PH-7 (W)	
Sample Depth (feet BGS)	3-8		3-8		3-8		3-8		3-8	
Date Collected	10/17/96		10/17/96		10/18/96		10/17/96		10/18/96	
Date Extracted										
Date Analyzed	10/26/96		10/26/96		10/26/96		10/26/96		10/27/96	
Analytical Method No.	8010		8010		8010		8010		8010	
Collection Method*	BL		BL		BL		BL		BL	
CONSTITUENT (ug/kg)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Dichlorodifluoromethane	ND	0.5	ND	5	ND	0.5	ND	0.5	ND	0.5
☒ Chloromethane	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ Vinyl Chloride	ND	0.5	ND	5	ND	0.5	ND	0.5	ND	0.5
☒ Bromomethane	ND	I.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ Chloroethane	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ Trichlorofluoromethane	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ 1,1-Dichloroethene	ND	1.0	ND	10	ND	1.0	ND	I.0	ND	1.0
☒ Methylene Chloride	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ trans-1,2-Dichloroethene	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ 1,1-Dichloroethane	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ Chloroform	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ 1,1,1-Trichloroethane	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ Carbon Tetrachloride	ND	0.5	ND	5	ND	0.5	ND	0.5	ND	0.5
☒ 1,2-Dichloroethane	ND	0.5	ND	5	ND	0.5	ND	0.5	ND	0.5
☒ 2-chloroethylvinyl ether	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒Trichloroethene	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ 1,2-Dichloropropane	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ Bromodichloromethane	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ cis-1,3-Dichloropropene	ND	0.5	ND	5	ND	0.5	ND	0.5	ND	0.5
☒ trans-1,3-Dichloropropene	ND	0.5	ND	5	ND	0.5	ND	0.5	ND	0.5
☒ 1,1,2-Trichloroethane	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ Tetrachloroethene	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ Dibromochloromethane	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ Chlorobenzene	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ Bromoform	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ 1,1,2,2-Tetrachloroethane	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ 1,3-Dichlorobenzene	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ 1,4-Dichlorobenzene	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ 1,2-Dichlorobenzene	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0

BGS = Below Ground Surface
* Collection Method Codes *(List all that apply)*: Grab Sample (GS), Split Spoon (SS), Hand Auger (HA), Geoprobe (GP), Continuous Corer (CC), Soil Gas (SG), Cone Penetrometer (CP), Hydropunch (HP)
If Other (OT), specify here: _____
MDL = Method Detection Limit

HISTORICAL GROUNDWATER DATA
LABORATORY RESULTS - GROUNDWATER
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

GROUNDWATER SAMPLING EVENT 12/9/96

VOLATILES										
Sample ID	MW-1		MW-2		MW-3		MW-4		MW-5	
Sample Depth (feet BGS)	3-8		3-8		3-8		2.5-7.5		2.5-7.5	
Date Collected	12/9/96		12/9/96		12/9/96		12/9/96		12/9/96	
Date Extracted										
Date Analyzed	12/19/96		12/19/96		12/19/96		12/19/96		12/18/96	
Analytical Method No.	8020A		8020A		8020A		8020A		8020A	
Collection Method*	BL		BL		BL		BL		BL	
CONSTITUENT (ug/L)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Benzene	ND	1	4,600	50	110	5	390	5	22	1
☒ Toluene	ND	1	12,000	50	45	5	12	5	ND	1
☒ Ethylbenzene	ND	1	2,900	50	200	5	18	5	1	1
☒ Total Xylenes	ND	1	15,000	50	570	5	17	5	2	1
☒ MTBE	ND	1	230	50	8	5	18	5	8	1
VOLATILES										
Sample ID	MW-6		MW-7		MW-8					
Sample Depth (feet BGS)	3-8		3-8		3-8					
Date Collected	12/9/96		12/9/96		12/9/96					
Date Extracted										
Date Analyzed	12/19/96		12/19/96		12/18/96					
Analytical Method No.	8020A		8020A		8020A					
Collection Method*	BL		BL		BL					
CONSTITUENT (ug/L)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Benzene	68	5	170	1	ND	1				
☒ Toluene	ND	5	7	1	ND	1				
☒ Ethylbenzene	970	5	260	1	ND	1				
☒Total Xylenes	1,300	5	230	1	ND	1				
☒ MTBE	9	5	14	1	ND	1				

BGS = Below Ground Surface
* Collection Method Codes *(List all that apply)*: Grab Sample (GS), Split Spoon (SS), Hand Auger (HA), Geoprobe (GP), Continuous Corer (CC), Soil Gas (SG), Cone Penetrometer (CP), Hydropunch (HP)
If Other (OT), specify here: _____
MDL = Method Detection Limit

HISTORICAL GROUNDWATER DATA
LABORATORY RESULTS - GROUNDWATER
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

GROUNDWATER SAMPLING EVENT 6/4/97

VOLATILES										
Sample ID	MW-1		MW-2		MW-3		MW-4		MW-5	
Sample Depth (feet BGS)	3-8		3-8		3-8		2.5-7.5		2.5-7.5	
Date Collected	6/4/97		6/4/97		6/4/97		6/4/97		6/4/97	
Date Extracted										
Date Analyzed	6/24/97		6/24/97		6/24/97		6/24/97		6/24/97	
Analytical Method No.	8020A		8020A		8020A		8020A		8020A	
Collection Method*	BL		BL		BL		BL		BL	
CONSTITUENT (ug/L)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Benzene	ND	1	3,400	20	49	1	100	10	25	1
☒ Toluene	ND	1	8,600	20	15	1	79	10	2	1
☒ Ethylbenzene	ND	1	2,600	20	82	1	1,300	10	8	1
☒ Total Xylenes	ND	1	11,000	20	180	1	3,400	10	ND	1
☒ MTBE	1	1	560	20	16	1	65	10	4	1
VOLATILES										
Sample ID	MW-6		MW-7		MW-8					
Sample Depth (feet BGS)	3-8		3-8		3-8					
Date Collected	6/4/97		6/4/97		6/4/97					
Date Extracted										
Date Analyzed	6/24/97		6/24/97		6/24/97					
Analytical Method No.	8020A		8021400A		8020A					
Collection Method*	BL		230BL		BL					
CONSTITUENT (ug/L)	Conc	MDL	Con2c	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Benzene	45	1	120	1	ND	1				
☒ Toluene	2	1	2	1	ND	1				
☒ Ethylbenzene	350	1	230	1	ND	1				
☒Total Xylenes	220	1	140	1	ND	1				
☒ MTBE	12	1	10	1	ND	1				

BGS = Below Ground Surface
* Collection Method Codes *(List all that apply)*: Grab Sample (GS), Split Spoon (SS), Hand Auger (HA), Geoprobe (GP), Continuous Corer (CC), Soil Gas (SG), Cone Penetrometer (CP), Hydropunch (HP)
If Other (OT), specify here: _____
MDL = Method Detection Limit

HISTORICAL GROUNDWATER DATA
LABORATORY RESULTS-GROUNDWATER
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

GROUNDWATER SAMPLING EVENT 6/4/97

POLYNUCLEAR AROMATICS										
Sample ID	MW-1		MW-2		MW-3		MW-4		MW-5	
Sample Depth (feet BGS)	3-8		3-8		3-8		3-8		3-8	
Date Collected	6/4/97		6/4/97		6/4/97		6/4/97		6/4/97	
Date Extracted	6/9/97		6/9/97		6/9/97		6/9/97		6/9/97	
Date Analyzed	6/10/97		6/11/97		6/10/97		6/11/97		6/10/97	
Analytical Method No.	8310		8310		8310		8310		8310	
Collection Method*	BL		BL		BL		BL		BL	
CONSTITUENT (ug/L)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Acenaphthene	ND	5	ND	100	ND	5	ND	5	ND	5
☒Acenaphthylene	ND	5	440	100	14	5	74	5	ND	5
☒ Anthracene	ND	5	ND	100	ND	5	ND	5	ND	5
☒ Benzo(a)anthracene	ND	5	ND	100	ND	5	ND	5	ND	5
☒ Benzo(a)pyrene	ND	5	ND	100	ND	5	ND	5	ND	5
☒ Benzo(b)fluoranthene	ND	5	ND	100	ND	5	ND	5	ND	5
☒ Benzo(g,h,i)perylene	ND	5	ND	100	ND	5	ND	5	ND	5
☒ Benzo(k)fluoranthene	ND	5	ND	100	ND	5	ND	5	ND	5
☒ Chrysene	ND	5	ND	100	ND	5	ND	5	ND	5
☒ Dibenzo(a,h)anthracene	ND	5	ND	100	ND	5	ND	5	ND	5
☒ Fluoranthene	ND	5	ND	100	ND	5	ND	5	ND	5
☒ Fluorene	ND	5	ND	100	ND	5	ND	5	ND	5
☒ Indeno(1,2,3- cd)pyrene	ND	5	ND	100	ND	5	ND	5	ND	5
☒ Naphthalene	ND	5	2,100	100	37	5	16	5	ND	5
☒ Phenanthrene	ND	5	ND	100	ND	5	ND	5	ND	5
☒ Pyrene	ND	5	ND	100	ND	5	ND	5	ND	5
☒ 2-Methylnaphthalene	ND	5	890	100	17	5	94	5	ND	5

BGS = Below Ground Surface
* Collection Method Codes *(List all that apply)*: Grab Sample (GS), Split Spoon (SS), Hand Auger (HA), Geoprobe (GP), Continuous Corer (CC), Soil Gas (SG), Cone Penetrometer (CP), Hydropunch (HP)
If Other (OT), specify here: _____
MDL = Method Detection Limit

ATTACHMENT C
Organic Vapor Screening Results

TABLE 2
ORGANIC VAPOR SCREENING RESULTS

SHELL SERVICE STATION
975 ROCHESTER ROAD
ROCHESTER, MICHIGAN
PROJECT NO. 0400810075

LOCATION	DATE	PID RESULT (PPM)
SE Catch Basin - Avon Road	4/15/96 6/4/97	ND ND
SW Catch Basin - Rochester Road	4/15/96 6/4/97	ND ND
NE Catch Basin - Rochester Road	4/15/96 6/4/97	ND ND
Catch Basin - Property North of Site	4/15/96 6/4/97	ND ND

PPM = Parts per million
ND = Not Detected

DEQ MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY - UNDERGROUND STORAGE TANK DIVISION

LEAKING UNDERGROUND STORAGE TANK SUPPLEMENTAL REPORT COVER SHEET

Authorized by the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), Part 213.

INSTRUCTIONS: Complete this form with all applicable information. Attach this form to all supplemental LUST submittals; this includes all reports other than the Initial Assessment, Final Assessment, and Closure Reports. The Certified Underground Storage Tank Professional (CP) MUST sign below.

IDENTIFY TYPE OF SUPPLEMENTAL REPORT: Monitoring Summary Report

FACILITY NAME: Shell Oil Station	FACILITY ID NUMBER: 0-009055
STREET ADDRESS: 975 Rochester Road	MERA SITE ID NUMBER:
CITY: Rochester STATE: Michigan ZIP CODE: 48306	COUNTY: Oakland
DATE(S) RELEASE(S) DISCOVERED: 4/8/96 (waste oil) 4/24/96 (gasoline)	CONFIRMED RELEASE NUMBER(S): C-214-96 (waste oil) C-252-96 (gasoline)
O/O NAME: Shell Oil Products Company	MUSTFA CLAIM NUMBER:
O/O STREET ADDRESS: CITY: STATE: ZIP CODE: 17370 Laurel Park Drive N., Suite 200, Livonia, MI 48152	
CONTACT PERSON: Mr. Jamie Keuper	PHONE NUMBER: (630) 572-5885

ANSWER ALL QUESTIONS

1. Type(s) of product released: Used motor oil and gasoline

2. Free product present: a. Currently? ____ YES __X__ NO If YES, total gallons recovered since last report:
   b. Previously? ____ YES __X__ NO If YES, total gallons recovered to date:

3. Have vapors been identified in any confined spaces (basement, sewers)? ___ YES _X__ NO

4. Estimated depth to groundwater: Estimated groundwater flow direction:

5. Estimated distance and direction from point of release to nearest:
   a. Private well: Approxximately 150' b. Municipal well: > 0.5 Mile c. Surface water/wetland: > 0.5 Mile

6. Since last report: a. cubic yards of soil remediated: 0 b. gallons of groundwater remediated: 0

7. Totals to date: a. cubic yards of soil remediated: 40 b. gallons of groundwater remediated: 0

8. 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 October 8, 1997.
(date submitted-Required)

Andrew J. Foerg 10-8-97
CP Original Signature - Required Date

Darryl D. Barricklow
PRINT QC Project Manager's Name

Andrew J. Foerg, P.G.
PRINT CP's Name

EnecoTech Midwest, Inc.
NAME OF CONSULTING FIRM

39255 Country Club Drive, Suite B40, Farmington Hills, MI 48331 (248) 489-0809 (248) 489-4184
ADDRESS PHONE NO. FAX NO.

R:\DOCS\SHELL\810-075\SUPCOV1.DOC

Please return this completed report cover sheet and associated attachments to the appropriate USTD District Office listed on the back of this page.

OCT - 9 1997
UNDERGROUND STORAGE TA
-SEMI

EQP3849 (2/96)

EnecoTech Midwest, Inc.
39255 Country Club Drive • Suite B40
Farmington Hills, Michigan 48331
(248) 489-0809 • Fax (248) 489-4184

EnecoTech
ENVIRONMENTAL CONSULTANTS

October 8, 1997

Mr. Paul Owens
Michigan Department of Environmental Quality
Underground Storage Tank Division
38980 Seven Mile Road
Livonia, Michigan 48152

0400810075

CERTIFIED MAIL: October 8, 1997 (P 432 199 250)

SUBJECT: **Shell Service Station**
975 Rochester Road
Rochester, Michigan
WIC#: 221-8070-0704

Dear Mr. Owens:

As proposed in the Final Assessment Report dated April 8, 1997, EnecoTech Midwest, Inc. (EnecoTech), on behalf of Shell Oil Products Company (Shell) has prepared the following Monitoring Summary Report for the Michigan Department of Environmental Quality (MDEQ), Underground Storage Tank Division (USTD) for the groundwater monitoring event conducted at the subject site on August 31, 1997.

Scope-of-Work

Activities conducted have included:

- Gauging depth of groundwater in site monitoring wells;
- Purging of select site monitoring wells, and subsequent collection of groundwater samples;
- Submittal of groundwater samples, under chain-of-custody documentation, for laboratory analysis of benzene, toluene, ethylbenzene, xylenes (BTEX), and methyl tertiary-butyl ether (MTBE) using modified USEPA Method 8020A, and polynuclear aromatic hydrocarbons (PNAs) using USEPA Method 8310;
- Screening of utility manways and catch basins adjacent to the site, utilizing a photoionization detector, for potential organic vapors in utility corridors; and
- Review of field data and laboratory results for evaluation of natural attenuation trends, and current status of remaining petroleum hydrocarbon impacts, relative to Michigan Department of Environmental Quality, Tier 1 Direct Contact, Risk Based Screening Level values.

Summary

Results of the groundwater gauging activity conducted on August 31, 1997 are depicted in Attachment A, Groundwater Flow Map, and indicate that the groundwater flow at the subject site is generally toward the south-southeast. Historical groundwater elevation data is presented in Table 1. Historically, groundwater elevation data has indicated flow direction to be southeasterly.

Laboratory analytical results for the August 31, 1997 groundwater monitoring event are depicted in Attachment B, Groundwater Analytical Map. Results indicate that petroleum hydrocarbon impacts to groundwater are currently below the Risk Based Screening Levels (RBSLs) for Tier I Direct Contact to Groundwater Criteria for the gasoline release indicator parameters BTEX and MTBE. Laboratory analytical results for groundwater samples collected from monitoring wells MW-1, 2, 4, 5, and 7 indicate a continuing decline in BTEX/MTBE concentrations. Additionally, results indicate impact concentration declines in all monitoring well locations since the initial groundwater sample event.

Laboratory analytical results for constituents of the waste oil indicator parameter PNA continue to be uncertain, but indicate potential for concentrations to be above RBSLs for Tier I Direct Contact to Groundwater Criteria in the vicinity of monitoring well MW-2. Accurate evaluation of PNA constituent concentrations has not been achieved due to sample background interference which requires the laboratory to utilize practical quantitation limits (PQLs) in excess of the approved method detection limits (MDLs).

Results of the organic vapor screening activities, presented in Attachment C, Organic Vapor Screening Results, indicate that organic vapors are not present in the adjacent utility corridors.

Conclusion

The continued general decline in BTEX/MTBE groundwater concentrations indicates that natural attenuation is occurring at the site. Concentrations are currently below appropriate RBSL Direct Contact to Groundwater criteria. Soil impact concentrations were initially found to be below RBSL Direct Contact to Soil criteria in all source and perimeter sample locations, with the exception of xylene impacts in the shallow (2.5') soil sample designated S-2 (collected during equipment upgrade activities, directly beneath the western-most dispenser island), and in the PH-2/MW-2 (2'-4') soil sample.

Utility corridor screening activities have not detected the presence of vapors. Impact concentrations in the groundwater are currently below the RBSL for groundwater to indoor air vapor of 5,600 parts per billion (ppb) benzene which, per recent discussion with the ERD toxocologist Linda Larsen, is pending final approval. While some previously existing soil impact concentrations are above the pending 1,600 ppb benzene soil indoor air vapor

criteria, they are not believed to present a hazard at the active, paved gasoline retail facility. Further evaluation of the vapor pathway will be conducted upon final approval of the indoor air vapor criteria.

The next scheduled monitoring activity, as specified in the FAR dated April 8, 1997, will be conducted during December 1997. The next monitoring summary report will be submitted in January 1998.

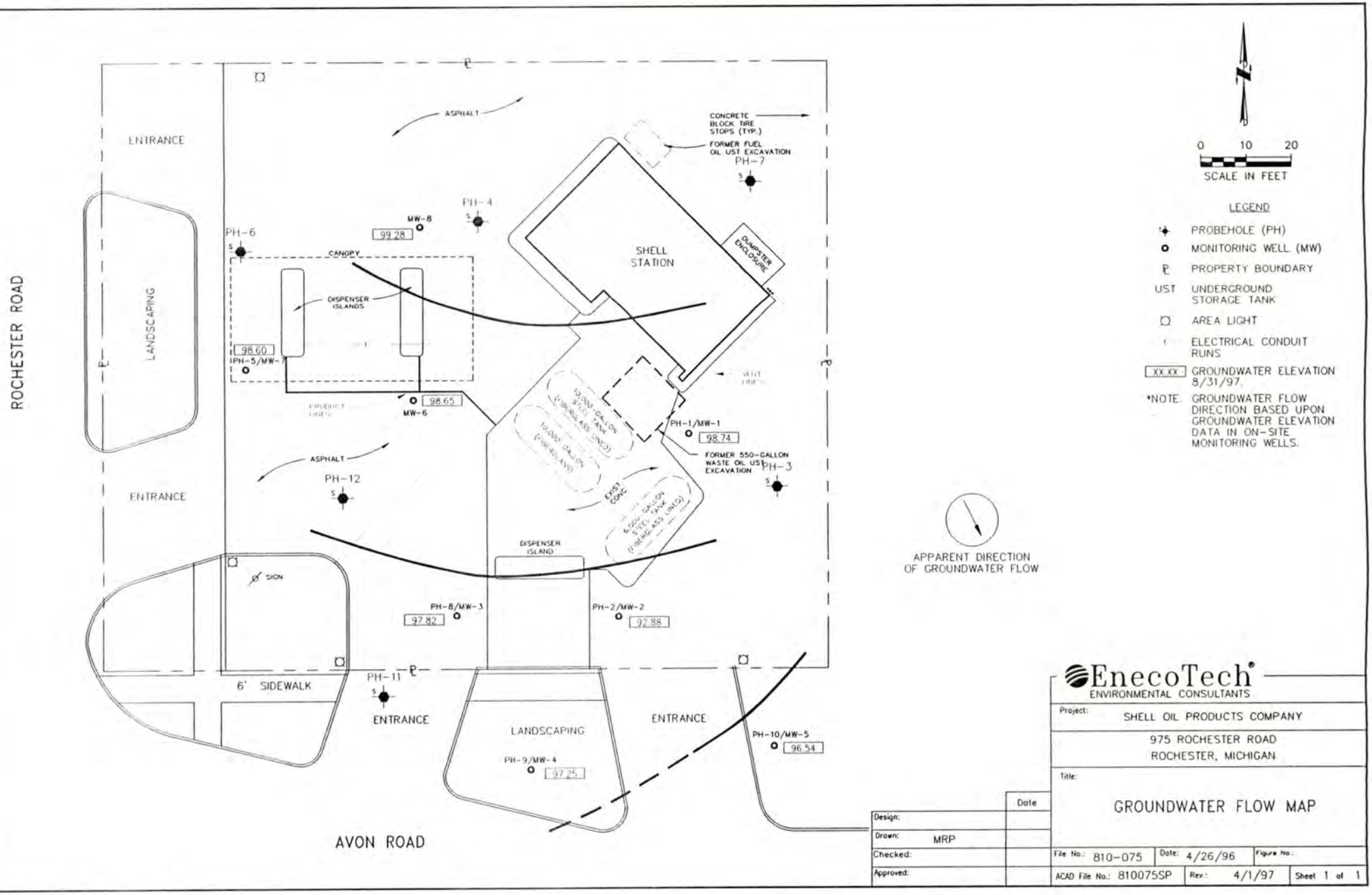
Should you have any questions. please call our office at (248) 489-0809.

Sincerely,

ENECOTECH MIDWEST, INC.

Darryl D. Barricklow
Project Scientist

ATTACHMENT A
Groundwater Elevation Map
and
Groundwater Elevation Data



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Project:	SHELL OIL PRODUCTS COMPANY	
	975 ROCHESTER ROAD ROCHESTER, MICHIGAN	
Title:	GROUNDWATER FLOW MAP	
Design:		Date
Drawn:	MRP	
Checked:		
Approved:		
File No.: 810-075	Date: 4/26/96	Figure No.:
ACAD File No.: 810075SP	Rev.: 4/1/97	Sheet 1 of 1

TABLE 1

GROUNDWATER ELEVATION DATA

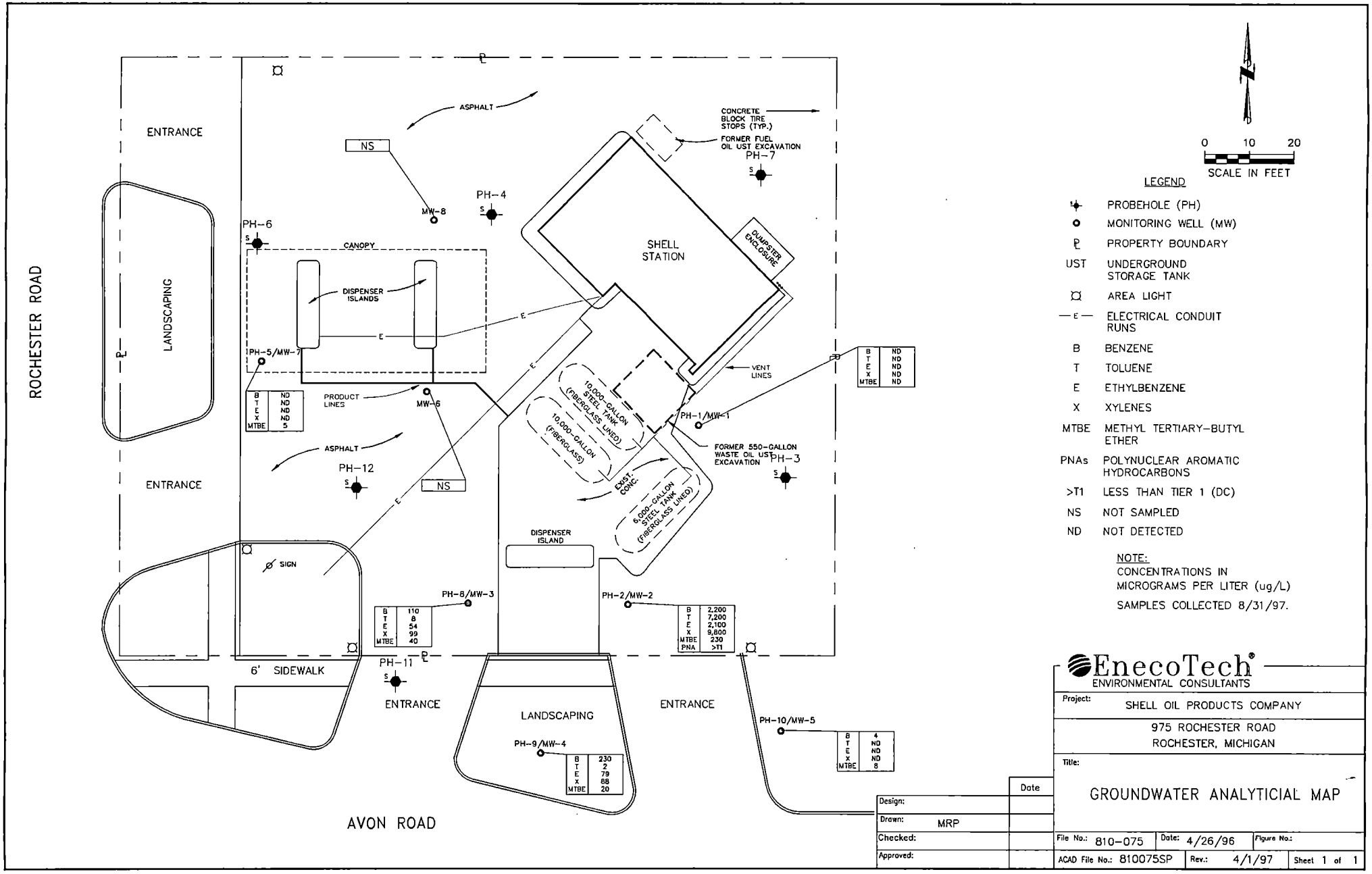
SHELL SERVICE STATION
975 ROCHESTER ROAD
ROCHESTER, MICHIGAN

Units = feet

LOCATION	TOC ELEVATION	GAUGING DATE					
		12/9/96		6/4/97		8/31/97	
		DTW	ELEV.	DTW	ELEV.	DTW	ELEV.
MW-1	101.40	2.98	98.42	2.20	99.20	2.66	98.74
MW-2	100.14	2.67	97.47	2.49	97.65	2.26	97.88
MW-3	100.02	2.48	97.54	1.76	98.26	2.20	97.82
MW-4	100.44	3.47	96.97	1.63	98.81	3.19	97.25
MW-5	98.70	2.16	96.54	1.56	97.14	2.16	96.54
MW-6	101.56	3.18	98.38	2.40	99.16	2.91	98.65
MW-7	102.00	3.63	98.37	2.88	99.12	3.40	98.6
MW-8	102.16	2.87	99.29	2.60	99.56	2.88	99.28

MW = Monitoring Well
DTW = Depth To Water
TOC = Top Of Casing

ATTACHMENT B
Groundwater Analytical Map
and
Historical Groundwater Data



LEGEND

- PROBEHOLE (PH)
- MONITORING WELL (MW)
- P PROPERTY BOUNDARY
- UST UNDERGROUND STORAGE TANK
- AREA LIGHT
- —E— ELECTRICAL CONDUIT RUNS
- B BENZENE
- T TOLUENE
- E ETHYLBENZENE
- X XYLENES
- MTBE METHYL TERTIARY-BUTYL ETHER
- PNAs POLYNUCLEAR AROMATIC HYDROCARBONS
- >T1 LESS THAN TIER 1 (DC)
- NS NOT SAMPLED
- ND NOT DETECTED

NOTE:
CONCENTRATIONS IN MICROGRAMS PER LITER (ug/L)
SAMPLES COLLECTED 8/31/97.

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	Date
Design:	
Drawn: MRP	
Checked:	
Approved:	

Project: SHELL OIL PRODUCTS COMPANY
975 ROCHESTER ROAD
ROCHESTER, MICHIGAN

Title: GROUNDWATER ANALYTICIAL MAP

File No.: 810-075 | Date: 4/26/96 | Figure No.:
ACAD File No.: 810075SP | Rev.: 4/1/97 | Sheet 1 of 1

LABORATORY RESULTS - GROUNDWATER
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

VOLATILES										
Sample ID	PH-1 (W)		PH-2 (W)		PH-3 (W)		PH-4 (W)		PH-5 (W)	
Sample Depth (feet BGS)	3-8		3-8		3-8		3-8		3-8	
Date Collected	10/17/96		10/17/96		10/18/96		10/17/96		10/18/96	
Date Extracted										
Date Analyzed	10/22/96		10/26/96		10/22/96		10/22/96		10/28/96	
Analytical Method No.	8020A		8020A		8020A		8020A		8020A	
Collection Method*	GP		GP		GP		GP		GP	
CONSTITUENT (ug/l)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Benzene	ND	1	5,700	100	ND	1	ND	1	130	1
☒ Toluene	ND	1	17,000	100	ND	1	ND	1	2	1
☒ Ethylbenzene	ND	1	3,200	100	ND	1	ND	1	140	1
☒ Total Xylenes	ND	1	16,000	100	ND	1	ND	1	69	1
☒ MTBE	ND	1	130	100	ND	1	ND	1	26	1
VOLATILES										
Sample ID	PH-6 (W)		PH-7 (W)		PH-11 (W)					
Sample Depth (feet BGS)	3-8		3-8		3-8					
Date Collected	10/18/96		10/18/96		10/17/96					
Date Extracted										
Date Analyzed	10/29/96		10/22/96		10/29/96					
Analytical Method No.	8020A		8020A		8020A					
Collection Method*	GP		GP		GP					
CONSTITUENT (ug/l)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Benzene	ND	1	ND	1	ND	1				
☒ Toluene	ND	1	ND	1	1	1				
☒ Ethylbenzene	ND	1	ND	1	ND	1				
☒ Total Xylenes	ND	1	ND	1	ND	1				
☒ MTBE	ND	1	ND	1	10	1				

BGS = Below Ground Surface
* Collection Method Codes *(List all that aply):* Grab Sample (GS), Split Spoon (SS)m Hand Auger (HA), Geoprobe (GP), Continuous Corer (CC), Soil Gas (SG), Cone Penetrometer (CP), Hydropunch (HP)
If other (OT) specify here: BL = Bailer
MDL = Method Detection Limit

LABORATORY RESULTS - GROUNDWATER
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

Groundwater Sample Event; 12/9/96

VOLATILES										
Sample ID	MW-1		MW-2		MW-3		MW-4		MW-5	
Sample Depth (feet BGS)	3-8		3-8		3-8		2.5-7.5		2.5-7.5	
Date Collected	12/9/96		12/9/96		12/9/96		12/9/96		12/9/96	
Date Extracted										
Date Analyzed	12/19/96		12/19/96		12/19/96		12/19/96		12/18/96	
Analytical Method No.	8020A		8020A		8020A		8020A		8020A	
Collection Method*	BL		BL		BL		BL		BL	
CONSTITUENT (ug/l)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Benzene	ND	1	4,600	50	110	5	390	5	22	1
☒ Toluene	ND	1	12,000	50	45	5	12	5	ND	1
☒ Ethylbenzene	ND	1	2,900	50	200	5	18	5	1	1
☒ Total Xylenes	ND	1	15,000	50	570	5	17	5	2	1
☒ MTBE	ND	1	230	50	8	5	18	5	8	1
VOLATILES										
Sample ID	MW-6		MW-7		MW-8					
Sample Depth (feet BGS)	3-8		3-8		3-8					
Date Collected	12/9/96		12/9/96		12/9/96					
Date Extracted										
Date Analyzed	12/19/96		12/19/96		12/18/96					
Analytical Method No.	8020A		8020A		8020A					
Collection Method*	BL		BL		BL					
CONSTITUENT (ug/l)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Benzene	68	5	170	1	ND	1				
☒ Toluene	ND	5	7	1	ND	1				
☒ Ethylbenzene	970	5	260	1	ND	1				
☒Total Xylenes	1,300	5	230	1	ND	1				
☒ MTBE	9	5	14	1	ND	1				

LABORATORY RESULTS - GROUNDWATER
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

Groundwater Sample Event: 6/4/97

VOLATILES										
Sample ID	MW-1		MW-2		MW-3		MW-4		MW-5	
Sample Depth (feet BGS)	3-8		3-8		3-8		2.5-7.5		2.5-7.5	
Date Collected	6/4/97		6/4/97		6/4/97		6/4/97		6/4/97	
Date Extracted										
Date Analyzed	6/11/97		6/18/97		6/11/97		6/13/97		6/11/97	
Analytical Method No.	8020A		8020A		8020A		8020A		8020A	
Collection Method*	BL		BL		BL		BL		BL	
CONSTITUENT (ug/l)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Benzene	ND	1	3,400	20	49	1	1,000	10	25	1
☒ Toluene	ND	1	8,600	20	15	1	79	10	2	1
☒ Ethylbenzene	ND	1	2,600	20	82	1	1,300	10	8	1
☒ Total Xylenes	ND	1	11,000	20	180	1	3,400	10	ND	1
☒ MTBE	1	1	560	20	16	1	65	10	4	1
VOLATILES										
Sample ID	MW-6		MW-7		MW-8					
Sample Depth (feet BGS)	3-8		3-8		3-8					
Date Collected	6/4/97		6/4/97		6/4/97					
Date Extracted										
Date Analyzed	6/11/97		6/11/97		6/11/97					
Analytical Method No.	8020A		8020A		8020A					
Collection Method*	BL		BL		BL					
CONSTITUENT (ug/l)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Benzene	45	1	120	1	ND	1				
☒ Toluene	2	1	2	1	ND	1				
☒ Ethylbenzene	350	1	230	1	ND	1				
☒Total Xylenes	220	1	140	1	ND	1				
☒ MTBE	12	1	10	1	ND	1				

LABORATORY RESULTS - GROUNDWATER
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

Groundwater Sample Event: 8/31/97

VOLATILES										
Sample ID	MW-1		MW-2		MW-3		MW-4		MW-5	
Sample Depth (feet BGS)	3-8		3-8		3-8		2.5-7.5		2.5-7.5	
Date Collected	8/31/97		8/31/97		8/31/97		8/31/97		8/31/97	
Date Extracted										
Date Analyzed	9/4/97		9/3/97		9/4/97		9/4/97		9/4/97	
Analytical Method No.	8020A		8020A		8020A		8020A		8020A	
Collection Method*	BL		BL		BL		BL		BL	
CONSTITUENT (ug/l)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Benzene	ND	1	2,200	20	110	1	230	1	4	1
☒ Toluene	ND	1	7,200	20	8	1	2	1	ND	1
☒ Ethylbenzene	ND	1	2,100	20	54	1	79	1	ND	1
☒ Total Xylenes	ND	1	9,800	20	99	1	88	1	ND	1
☒ MTBE	ND	1	230	20	40	1	20	1	8	1
VOLATILES										
Sample ID	MW-6		MW-7		MW-8					
Sample Depth (feet BGS)	3-8		3-8		3-8					
Date Collected			8/31/97							
Date Extracted										
Date Analyzed			9/4/97							
Analytical Method No.			8020A							
Collection Method*			BL							
CONSTITUENT (ug/l)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Benzene	NS		ND	1	NS					
☒ Toluene	NS		ND	1	NS					
☒ Ethylbenzene	NS		ND	1	NS					
☒Total Xylenes	NS		ND	1	NS					
☒ MTBE	NS		5	1	NS					

LABORATORY RESULTS - GROUNDWATER
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

METALS										
Sample ID	PH-1 (W)		PH-2 (W)		PH-3 (W)		PH-4 (W)		PH-7 (W)	
Sample Depth (feet BGS)	3-8		3-8		3-8		3-8		3-8	
Date Collected	10/17/96		10/17/96		10/18/96		10/17/96		10/18/96	
Date Extracted										
Date Analyzed	10/29-30/96		10/29-30/96		10/29-30/96		10/29-30/96		10/29-30/96	
Analytical Method No.	7131/7191/7421		7131/7191/7421		7131/7191/7421		7131/7191/7421		7131/7191/7421	
Collection Method*	GP		GP		GP		GP		GP	
CONSTITUENT (ug/l)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Cadmium	ND	0.2	ND	0.2	ND	0.2	ND	0.2	ND	0.2
☐ Chromium III										
☒ Chromium VI	ND	1	ND	1	ND	1	ND	1	ND	1
☒ Total Lead	ND	1	19	1	ND	1	ND	1	ND	1
METALS										
Sample ID										
Sample Depth (feet BGS)										
Date Collected										
Date Extracted										
Date Analyzed										
Analytical Method No.										
Collection Method*										
CONSTITUENT (ug/l)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☐ Cadmium										
☐ Chromium III										
☐ Chromium VI										
☐ Total Lead										

LABORATORY RESULTS-GROUNDWATER
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

POLYNUCLEAR AROMATICS										
Sample ID	PH-1 (W)		PH-2 (W)		PH-3 (W)		PH-4 (W)		PH-7 (W)	
Sample Depth (feet BGS)	3-8		3-8		3-8		3-8		3-8	
Date Collected	10/17/96		10/17/96		10/18/96		10/17/96		10/18/96	
Date Extracted										
Date Analyzed	10/29/96		10/30/96		11/1/96		10/30/96		11/4/96	
Analytical Method No.	8310		8310		8310		8310		8310	
Collection Method*	GP		GP		GP		GP		GP	
CONSTITUENT (ug/l)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Acenaphthene	ND	5	ND	500	ND	5	ND	5	ND	100
☒Acenaphthylene	ND	5	12,000	500	ND	5	ND	5	200	100
☒ Anthracene	ND	5	ND	500	ND	5	ND	5	ND	100
☒ Benzo(a)anthracene	ND	5	ND	500	ND	5	ND	5	ND	100
☒ Benzo(a)pyrene	ND	5	ND	500	ND	5	ND	5	ND	100
☒ Benzo(b)fluoranthene	ND	5	ND	500	ND	5	ND	5	ND	100
☒ Benzo(g,h,i)perylene	ND	5	ND	500	ND	5	ND	5	ND	100
☒ Benzo(k)fluoranthene	ND	5	ND	500	ND	5	ND	5	ND	100
☒ Chrysene	ND	5	ND	500	ND	5	ND	5	ND	100
☒ Dibenzo(a,h)anthracene	ND	5	ND	500	ND	5	ND	5	ND	100
☒ Fluoranthene	ND	5	ND	500	ND	5	ND	5	ND	100
☒ Fluorene	ND	5	ND	500	ND	5	ND	5	ND	100
☒ Indeno(1,2,3- cd)pyrene	ND	5	ND	500	ND	5	ND	5	ND	100
☒ Naphthalene	ND	5	16,000	500	ND	5	ND	5	710	100
☒ Phenanthrene	ND	5	ND	500	ND	5	ND	5	ND	100
☒ Pyrene	ND	5	ND	500	ND	5	ND	5	ND	100
☒ 2-Methylnaphthalene	ND	5	27,000	500	ND	5	ND	5	420	100

BGS = Below Ground Surface
* Collection Method Codes *(List all that aply):* Grab Sample (GS), Split Spoon (SS)m Hand Auger (HA), Geoprobe (GP), Continuous Corer (CC), Soil Gas (SG), Cone Penetrometer (CP), Hydropunch (HP)
If other (OT) specify here: BL = Bailer
MDL = Method Detection Limit

LABORATORY RESULTS-GROUNDWATER
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

POLYNUCLEAR AROMATICS										
Sample ID	MW-2									
Sample Depth (feet BGS)	3-8									
Date Collected	8/31/97									
Date Extracted	9/5/97									
Date Analyzed	9/9/97									
Analytical Method No.	8310									
Collection Method*	BL									
CONSTITUENT (ug/l)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Acenaphthene	ND	100								
☒Acenaphthylene	290	100								
☒ Anthracene	ND	100								
☒ Benzo(a)anthracene	ND	100								
☒ Benzo(a)pyrene	ND	100								
☒ Benzo(b)fluoranthene	ND	100								
☒ Benzo(g,h,i)perylene	ND	100								
☒ Benzo(k)fluoranthene	ND	100								
☒ Chrysene	ND	100								
☒ Dibenzo(a,h)anthracene	ND	100								
☒ Fluoranthene	ND	100								
☒ Fluorene	ND	100								
☒ Indeno(1,2,3- cd)pyrene	ND	100								
☒ Naphthalene	1,100	100								
☒ Phenanthrene	ND	100								
☒ Pyrene	ND	100								
☒ 2-Methylnaphthalene	420	100								

BGS = Below Ground Surface
* If applicable
** Footnote and define all Collection Method Codes used in this table: GS = Grab Sample
MDL = Method Detection Limit

LABORATORY RESULTS-GROUNDWATER
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

POLYNUCLEAR AROMATICS										
Sample ID	MW-1		MW-2		MW-3		MW-4		MW-5	
Sample Depth (feet BGS)	3-8		3-8		3-8		2.5-7.5		2.5-7.5	
Date Collected	6/4/97		6/4/97		6/4/97		6/4/97		6/4/97	
Date Extracted	6/9/97		6/9/97		6/9/97		6/9/97		6/9/97	
Date Analyzed	6/10/97		6/11/97		6/10/97		6/10/97		6/10/97	
Analytical Method No.	8310		8310		8310		8310		8310	
Collection Method*	BL		BL		BL		BL		BL	
CONSTITUENT (ug/l)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Acenaphthene	ND	5	440	100	14	5	74	5	ND	5
☒Acenaphthylene	ND	5	ND	100	ND	5	ND	5	ND	5
☒ Anthracene	ND	5	ND	100	ND	5	ND	5	ND	5
☒ Benzo(a)anthracene	ND	5	ND	100	ND	5	ND	5	ND	5
☒ Benzo(a)pyrene	ND	5	ND	100	ND	5	ND	5	ND	5
☒ Benzo(b)fluoranthene	ND	5	ND	100	ND	5	ND	5	ND	5
☒ Benzo(g,h,i)perylene	ND	5	ND	100	ND	5	ND	5	ND	5
☒ Benzo(k)fluoranthene	ND	5	ND	100	ND	5	ND	5	ND	5
☒ Chrysene	ND	5	ND	100	ND	5	ND	5	ND	5
☒ Dibenzo(a,h)anthracene	ND	5	ND	100	ND	5	ND	5	ND	5
☒ Fluoranthene	ND	5	ND	100	ND	5	ND	5	ND	5
☒ Fluorene	ND	5	ND	100	ND	5	ND	5	ND	5
☒ Indeno(1,2,3- cd)pyrene	ND	5	ND	100	ND	5	ND	5	ND	5
☒ Naphthalene	ND	5	2,100	100	37	5	16	5	ND	5
☒ Phenanthrene	ND	5	ND	100	ND	5	ND	5	ND	5
☒ Pyrene	ND	5	ND	100	ND	5	ND	5	ND	5
☒ 2-Methylnaphthalene	ND	5	890	100	17	5	94	5	ND	5

BGS = Below Ground Surface
* If applicable
** Footnote and define all Collection Method Codes used in this table: GS = Grab Sample
MDL = Method Detection Limit

BGS = Below Ground Surface
* If applicable
** Footnote and define all Collection Method Codes used in this table: GS = Grab Sample
MDL = Method Detection Limit

LABORATORY RESULTS - GROUNDWATER
FACILITY NAME Shell Service Station
FACILITY ID NUMBER 0-009055

HALOGENATED HYDROCARBONS										
Sample ID	PH-1 (W)		PH-2 (W)		PH-3 (W)		PH-4 (W)		PH-7 (W)	
Sample Depth (feet BGS)	3-8		3-8		3-8		3-8		3-8	
Date Collected	10/17/96		10/17/96		10/18/96		10/17/96		10/18/96	
Date Extracted										
Date Analyzed	10/26/96		10/26/96		10/26/96		10/26/96		10/27/96	
Analytical Method No.	8010		8010		8010		8010		8010	
Collection Method*	BL		BL		BL		BL		BL	
CONSTITUENT (ug/kg)	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
☒ Dichlorodifluoromethane	ND	0.5	ND	5	ND	0.5	ND	0.5	ND	0.5
☒ Chloromethane	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ Vinyl Chloride	ND	0.5	ND	5	ND	0.5	ND	0.5	ND	0.5
☒ Bromomethane	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ Chloroethane	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ Trichlorofluoromethane	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ 1,1-Dichloroethene	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ Methylene Chloride	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ trans-1,2-Dichloroethene	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ 1,1-Dichloroethane	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ Chloroform	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ 1,1,1-Trichloroethane	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ Carbon Tetrachloride	ND	0.5	ND	5	ND	0.5	ND	0.5	ND	0.5
☒ 1,2-Dichloroethane	ND	0.5	ND	5	ND	0.5	ND	0.5	ND	0.5
☒ 2-chloroethylvinyl ether	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒Trichloroethene	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ 1,2-Dichloropropane	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ Bromodichloromethane	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ cis-1,3-Dichloropropene	ND	0.5	ND	5	ND	0.5	ND	0.5	ND	0.5
☒ trans-1,3-Dichloropropene	ND	0.5	ND	5	ND	0.5	ND	0.5	ND	0.5
☒ 1,1,2-Trichloroethane	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ Tetrachloroethene	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ Dibromochloromethane	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ Chlorobenzene	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ Bromoform	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ 1,1,2,2-Tetrachloroethane	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ 1,3-Dichlorobenzene	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ 1,4-Dichlorobenzene	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0
☒ 1,2-Dichlorobenzene	ND	1.0	ND	10	ND	1.0	ND	1.0	ND	1.0

BGS = Below Ground Surface
* Collection Method Codes *(List all that aply):* Grab Sample (GS), Split Spoon (SS)m Hand Auger (HA), Geoprobe (GP), Continuous Corer (CC), Soil Gas (SG), Cone Penetrometer (CP), Hydropunch (HP)
If other (OT) specify here: BL = Bailer
MDL = Method Detection Limit

ATTACHMENT C
Organic Vapor Screening Results

TABLE 2
ORGANIC VAPOR SCREENING RESULTS

SHELL SERVICE STATION
975 ROCHESTER ROAD
ROCHESTER, MICHIGAN

LOCATION	DATE	PID RESULT (PPM)
SE Catch Basin - Avon Road	4/15/96 6/4/97 8/31/97	ND ND ND
SW Catch Basin - Rochester Road	4/15/96 6/4/97 8/31/97	ND ND ND
NE Catch Basin - Rochester Road	4/15/96 6/4/97 8/31/97	ND ND ND
Catch Basin - Property North of Site	4/15/96 6/4/97 8/31/97	ND ND ND

PPM = Parts per million
ND = Not Detected

Groundwater Monitoring / Site Status Report

975 Rochester Road
Rochester, Michigan
WIC # 221-6983-0100

Prepared for:

Stace R. Bieber, P.G.
Environmental Geologist
Shell Oil Products US
9436 Maltby Road
Brighton, MI 48116

Prepared by:

Groundwater & Environmental Services, Inc.
9436 Maltby Road
Brighton, MI 48116

January 22, 2003

DEQ

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY - STORAGE TANK DIVISION

LEAKING UNDERGROUND STORAGE TANK
SUPPLEMENTAL REPORT COVER SHEET

INSTRUCTIONS: Complete this form with all applicable information. Attach this form to all supplemental Leaking Underground Storage Tank (LUST) submittals; this includes all reports other than the Initial Assessment, Final Assessment, and Closure Reports. The Certified Underground Storage Tank Professional (CP) MUST sign below. Please return this completed report cover sheet to the appropriate STD District Office listed on page 2. Use of this form to provide the listed information is voluntary.

IDENTIFY TYPE OF SUPPLEMENTAL REPORT: GROUNDWATER MONITORING / SITE STATUS REPORT

FACILITY NAME: **Shell Rochester @ Avon (221-6983-0100)**	FACILITY ID NUMBER: **0-009055**
STREET ADDRESS: **975 Rochester Road** CITY: **Rochester**	
STATE: **MI** ZIP CODE: **48037**	COUNTY: **Oakland**
DATE(S) RELEASE(S) DISCOVERED: **04/08/1996, 04/24/1996**	CONFIRMED RELEASE NUMBER(S): **C-0214-96, C-0252-96**
O/O NAME: **Shell Oil Products US**	
O/O STREET ADDRESS: **9436 Maltby Road, Brighton** STATE: **MI**	ZIP CODE: **48116**
CONTACT PERSON: **Stace R. Bieber, P.G. (Shell Oil Products US)**	PHONE NUMBER: **(248) 670-1471**

RECEIVED
JAN 24 2003
REMEDIATION & REDEVELOPMENT DIV.
SEMI DISTRICT OFFICE

ANSWER ALL QUESTIONS

1. Type(s) of product released: **Unleaded Gasoline and Waste Oil**

2. Free product present:
   a. Currently? ☐YES ☒NO
   b. Previously? ☐YES ☒NO
   If YES, total gallons recovered since last report:
   If YES, total gallons recovered to date:

3. Have vapors been identified in any confined spaces (basement, sewers)? ☐YES ☒NO

4. Estimated depth to groundwater: **Approximately 4 feet** | Estimated groundwater flow direction: **Radial**

5. Estimated distance and direction from point of release to nearest:
   a. Private well: **150 feet south** b. Municipal well: **< ½ Radial Mile** c. Surface water/wetland: **> ½ Mile North**

6. Since last report: a. cubic yards of soil remediated: **Zero** b. gallons of groundwater remediated: **Zero**

7. Totals to date: a. cubic yards of soil remediated: **Approximately 40 yd^3** b. gallons of groundwater remediated: **Zero**

8. Michigan RBCA Site Classification (1-4): **3**

9. Has contamination migrated off-site above Tier 1 Residential RBSLs ☐YES ☒NO
   If YES, have off-site impacted parties been notified (per Section 21309a(3) of Part 213 ☐YES ☒NO

10. MTBE | Has MTBE been detected in any sample? ☒YES ☐NO | Is any sample above 40 ppb? ☒YES ☐NO

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 Storage Tank Division (STD) on 1/23/03.
(date submitted-Required)

CP ORIGINAL SIGNATURE - REQUIRED	DATE 1/23/03	**Jeffrey Berntsen** PRINT QC PROJECT MANAGER'S NAME
Kirk Pompilius, P.G. PRINT CP'S NAME		**Groundwater & Environmental Services, Inc. (GES)** NAME OF CONSULTING FIRM
9436 Maltby Road, Brighton, MI 48116 ADDRESS	**(810) 227-0002** PHONE NO.	**(810) 227-0008** FAX NO.

DEQ STORAGE TANK DIVISION OFFICES AND LOCATIONS

Determine in which county/city the UST is located and which Storage Tank Division (STD) office serves that county/city, then locate the proper STD address/phone listed below.

COUNTY	STD OFFICE	COUNTY	STD OFFICE	COUNTY	STD OFFICE	COUNTY	STD OFFICE
Alcona	Gaylord	Dickinson	Marquette	Lake	Cadillac	Oceana	Grand Rapids
Alger	Marquette	Eaton	Shiawassee	Lapeer	Shiawassee	Ogemaw	Saginaw-Bay
Allegan	Kalamazoo	Emmet	Gaylord	Leelanau	Cadillac	Ontonagon	Marquette
Alpena	Gaylord	Genesee	Shiawassee	Lenawee	Jackson	Osceola	Cadillac
Antrim	Gaylord	Gladwin	Saginaw-Bay	Livingston	Shiawassee	Oscoda	Gaylord
Arenac	Saginaw-Bay	Gogebic	Marquette	Luce	Marquette	Otsego	Gaylord
Baraga	Marquette	Grand Traverse	Cadillac	Mackinac	Marquette	Ottawa	Grand Rapids
Barry	Grand Rapids	Gratiot	Shiawassee	Macomb	SE Michigan	Presque Isle	Gaylord
Bay	Saginaw-Bay	Hillsdale	Jackson	Manistee	Cadillac	Roscommon	Gaylord
Benzie	Cadillac	Houghton	Marquette	Marquette	Marquette	Saginaw	Saginaw-Bay
Berrien	Kalamazoo	Huron	Saginaw-Bay	Mason	Cadillac	Sanilac	Saginaw-Bay
Branch	Kalamazoo	Ingham	Shiawassee	Mecosta	Grand Rapids	Schoolcraft	Marquette
Calhoun	Kalamazoo	Ionia	Grand Rapids	Menominee	Marquette	Shiawassee	Shiawassee
Cass	Kalamazoo	Iosco	Saginaw-Bay	Midland	Saginaw-Bay	St Clair	SE Michigan
Charlevoix	Gaylord	Iron	Marquette	Missaukee	Cadillac	St Joseph	Kalamazoo
Cheboygan	Gaylord	Isabella	Saginaw-Bay	Monroe	Jackson	Tuscola	Saginaw-Bay
Chippewa	Marquette	Jackson	Jackson	Montcalm	Grand Rapids	Van Buren	Kalamazoo
Clare	Saginaw-Bay	Kalamazoo	Kalamazoo	Montmorency	Gaylord	Washtenaw	Jackson
Clinton	Shiawassee	Kalkaska	Cadillac	Muskegon	Grand Rapids	Wayne*	SE Michigan
Crawford	Gaylord	Kent	Grand Rapids	Newaygo	Grand Rapids	*Detroit	Detroit
Delta	Marquette	Keweenaw	Marquette	Oakland	SE Michigan	*Highland Park	Detroit
						*Hamtramck	Detroit
						Wexford	Cadillac

CADILLAC DISTRICT OFFICE
120 W CHAPIN ST
CADILLAC MI 49601-2158

(PHONE) 231-775-3960
(FAX) 231-775-1511

DETROIT FIELD OFFICE
300 RIVERPLACE, SUITE 3600
DETROIT MI 48207

(PHONE) 313-392-6480
(FAX) 313-392-6488

GAYLORD FIELD OFFICE
2100 WEST M-32
GAYLORD MI 49735

(PHONE) 989-705-3415
(FAX) 989-731-6181

GRAND RAPIDS DISTRICT OFFICE
350 OTTAWA AVE N.W. UNIT 10
GRAND RAPIDS MI 49503-2341

(PHONE) 616-356-0500
(FAX) 616-356-0202

JACKSON DISTRICT OFFICE
301 E LOUIS B. GLICK HIGHWAY
JACKSON MI 49201-1556

(PHONE) 517-780-7690
(FAX) 517-780-7855

KALAMAZOO DISTRICT OFFICE
7953 ADOBE ROAD
KALAMAZOO MI 49009-5026

(PHONE) 616-567-3500
(FAX) 616-567-9440

MARQUETTE DISTRICT OFFICE
1990 US 41 SOUTH
MARQUETTE MI 49855-9198

(PHONE) 906-228-6568
(FAX) 906-228-5245

SAGINAW-BAY DISTRICT OFFICE
503 N EUCLID AVE SUITE 1
BAY CITY MI 48706-2965

(PHONE) 989-686-8025 ext. 8377
(FAX) 989-684-9799

SE MICHIGAN DISTRICT OFFICE
38980 SEVEN MILE RD
LIVONIA MI 48152-1006

(PHONE) 734-953-1450
(FAX) 734-432-1295

SHIAWASSEE DISTRICT OFFICE
10650 BENNETT DR
MORRICE MI 48857-9792

(PHONE) 517-625-5515
(FAX) 517-625-5000

MAIN OFFICE
333 S. CAPITOL AVE, PO BOX 30157
LANSING MI 48909-7657
(PHONE) 517-373-8168
(FAX) 517-335-2245 or 517-335-0146
E-MAIL: deq-std-tanks@state.mi.us
WEB SITE: http://www.deq.state.mi.us/std/
REPORT UNDERGROUND STORAGE TANK RELEASES: 800-642-4878

Groundwater Monitoring / Site Status Report
January 2003
Shell Retail Station
975 Rochester Road@ Avon
Rochester, MI 48313
WIC: 221-6983-0100
Facility ID: 0-009055

Groundwater & Environmental Services, Inc. (GES) was retained by Shell Oil Products US (Shell), to prepared this Groundwater Monitoring / Site Status Report addressing the following confirmed releases at the Shell branded retail gasoline facility at 975 Rochester Road, Rochester, Oakland County Michigan (site):

- C-0214-96 on 04/08/1996; and
- C-0252-96 on 04/24/1996

This report summarizes recently completed site activities, provides explanations of proposed future activities based on the current site data and presents data obtained from the recent activities.

Based on a detailed evaluation of current site conditions and a review of previously completed regulatory documents, GES considers the site to fulfill Class 3 requirements per the newly drafted MDEQ Operational Memorandum No. 5, dated 07/10/95, Revised 08/28/02. Furthermore, GES considers direct contact with impacted subsurface soils and groundwater as well as hydrocarbon volatilization to indoor air to be applicable exposure pathways at the site.

Recently Completed Activities

In January 2001, GES assumed environmental consulting services at the site. Upon receiving the site, GES conducted a detailed review of all available site data.

In May 2001, and April 2002, GES sampled on-site monitoring wells to determine prevailing site conditions.

In March 2002, GES obtained a permit from the Road Commission of Oakland County to access both the northern and southern rights-of-way of Avon Road.

On November 12 and 13, 2002, GES directed the installation and construction of five (5) monitoring well locations on-site along the southern property boundary and within both the northern and southern rights-of-way of Avon Road.

Proposed 2003 Activities

- Sample all monitoring wells;
- Evaluate closure potential or update FAR

Recently Collected Data

Refer to Appendix A for scaled site maps depicting the site, it's prominent features, respective property boundaries, and current monitoring well locations.

Refer to Appendix B for the boring log and monitoring well diagrams prepared for the soil borings and monitoring wells completed on site under GES' direction in November 2002.

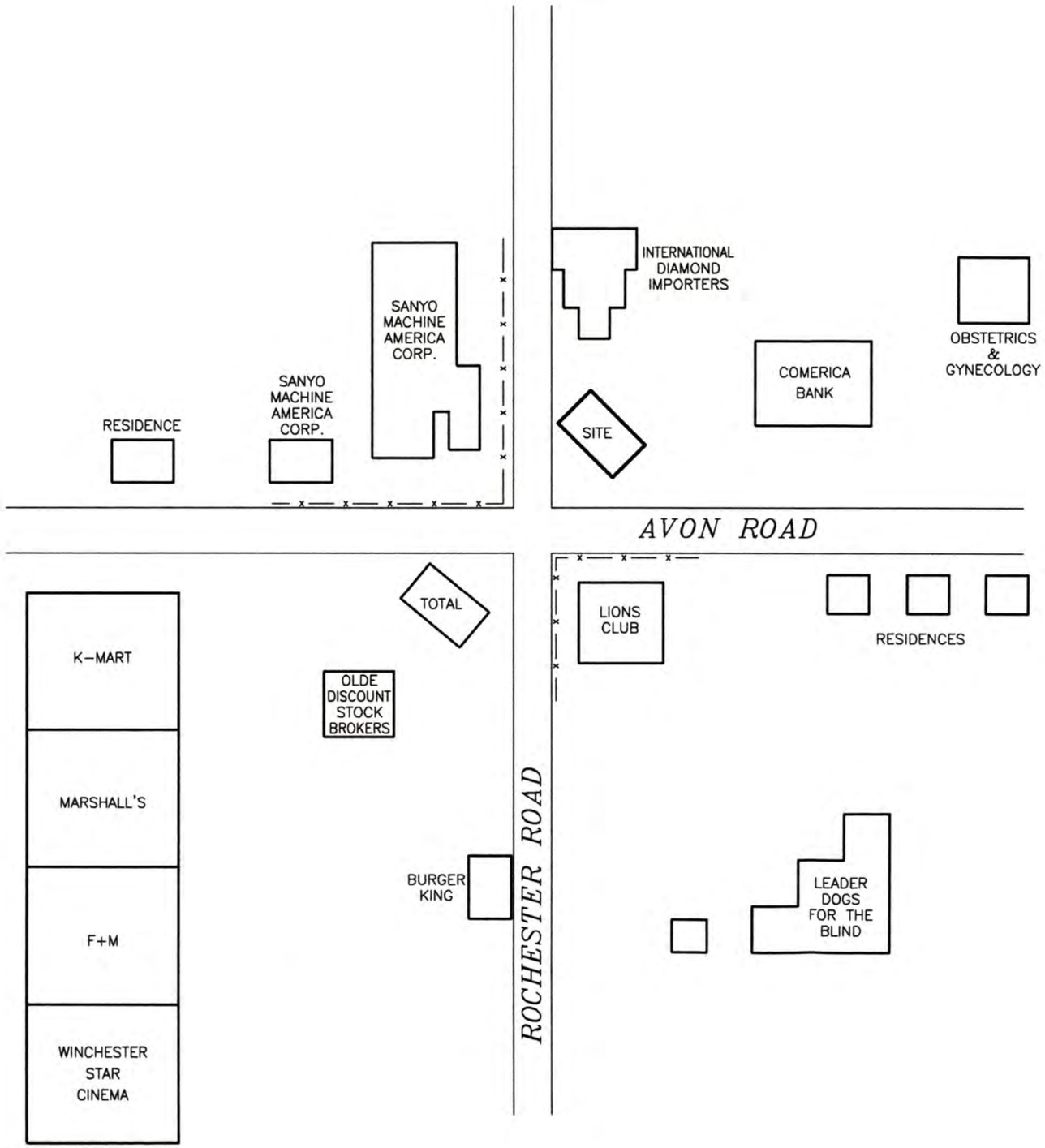
Refer to Appendix C for analytical data tables presenting the laboratory analytical data generated from on-site soil and groundwater samples as compared to the applicable Tier 1 Residential and Commercial III RBSLs per MDEQ Part 213 Operational Memorandum No. 4, Attachment 2, Revision 5, dated June 2000.

See Appendices.

APPENDIX A

Appendix A

Site Maps



DRAFTED BY: J.S.M. (WALL)	LOCAL AREA MAP
CHECKED BY:	SHELL SERVICE STATION WIC #221-8070-0704 975 ROCHESTER ROAD ROCHESTER HILLS, MICHIGAN
REVIEWED BY:	
NORTH	Groundwater & Environmental Services, Inc. 9436 MALTBY ROAD, BRIGHTON, MICHIGAN 48116
NOT TO SCALE	DATE 12-31-02 / FIGURE

M:\Graphics\Graphics-Detroit\Shell\8070-0704 Rochester Hills\8070-0704 rochester hills LAM.dwg, Model, 12/31/2002 01:35:47 PM, JMaul, 1:1, GES

INTERNATIONAL DIAMOND IMPORTERS

COMERICA BANK

ROCHESTER ROAD

AVON ROAD

SPEEDWAY SERVICE STATION

LEADER DOGS FOR THE BLIND

ASPHALT

CONCRETE

LANDSCAPING

SHELL SERVICE STATION

CANOPY

DUMPSTER

6' SIDEWALK

FORMER DISPENSER

PRODUCT PIPING

VENT PIPING

10,000 GALLON GASOLINE UST

6,000 GALLON GASOLINE UST

MW1 MW2 MW3 MW4 MW5 MW6 MW7 MW8 MW9 MW10 MW11 MW12 MW13

12"ø 16'DEPTH

12"ø 7'DEPTH

6"ø

LEGEND

- F/O — FORMER FUEL OIL TANK
- W/O — FORMER 550 GALLON WASTE OIL TANK
- L — LIGHT POLE
- DISPENSER ISLAND
- MONITORING WELL
- SS — UNDERGROUND SANITARY SEWER
- ST — UNDERGROUND STORM SEWER
- G — UNDERGROUND GAS LINE
- W — UNDERGROUND WATER LINE
- T — UNDERGROUND TELEPHONE
- UE — UNDERGROUND ELECTRIC
- OHU — OVERHEAD UTILITIES

DRAFTED BY: D.M.K. (WALL)	SITE MAP
CHECKED BY:	SHELL SERVICE STATION WIC #221-8070-0704 975 ROCHESTER ROAD ROCHESTER HILLS, MICHIGAN
REVIEWED BY:	Groundwater & Environmental Services, Inc. 9436 MALTBY ROAD, BRIGHTON, MICHIGAN 48116
NORTH	SCALE IN FEET: 0 30 / DATE: 1-21-03 / FIGURE:

M:\Graphics\Graphics-Detroit\Shell\8070-0704 Rochester Hills\8070-0704 rochester hills SM.dwg, 01/21/2003 09:58:05 AM, DKessler, 1:30, GES

INTERNATIONAL DIAMOND IMPORTERS

COMERICA BANK

ASPHALT

ROCHESTER ROAD

DUMPSTER

F/O

SHELL SERVICE STATION

CANOPY

CONCRETE

LANDSCAPING

PRODUCT PIPING

VENT PIPING

W/O

10,000 GALLON GASOLINE UST

10,000 GALLON GASOLINE UST

6,000 GALLON GASOLINE UST

FORMER DISPENSER

SIGN

6' SIDEWALK

AVON ROAD

SPEEDWAY SERVICE STATION

LEADER DOGS FOR THE BLIND

MW8	N/A
B	<1
T	<1
E	<1
X	<1
MTBE	<1
1,2,4-TMB	<1
1,3,5-TMB	<1
2-MeN	<1
NAPH	<1

MW7	N/A
B	<1
T	<1
E	<1
X	<1
MTBE	<1
1,2,4-TMB	<1
1,3,5-TMB	<1
2-MeN	<1
NAPH	<1

MW6	N/A
B	1
T	<1
E	67
X	2
MTBE	2
1,2,4-TMB	1
1,3,5-TMB	<1
2-MeN	2
NAPH	8

MW1	N/A
B	<1
T	<1
E	<1
X	<1
MTBE	<1
1,2,4-TMB	<1
1,3,5-TMB	<1
2-MeN	<1
NAPH	<1

MW3	N/A
B	48
T	1
E	48
X	6
MTBE	4
1,2,4-TMB	22
1,3,5-TMB	<1
2-MeN	<1
NAPH	<1

MW4	N/A
B	190
T	6
E	100
X	58
MTBE	<1
1,2,4-TMB	2
1,3,5-TMB	2
2-MeN	4
NAPH	95

MW2	N/A
B	2,500
T	2,300
E	1,500
X	6,800
MTBE	110
1,2,4-TMB	1,400
1,3,5-TMB	480
2-MeN	50
NAPH	230

MW5	N/A
B	<1
T	<1
E	<1
X	<1
MTBE	<1
1,2,4-TMB	<1
1,3,5-TMB	<1
2-MeN	<1
NAPH	<1

MW1 MW2 MW3 MW4 MW5 MW6 MW7 MW8 MW9 MW10 MW11 MW12 MW13

LEGEND

F/O	FORMER FUEL OIL TANK
W/O	FORMER 550 GALLON WASTE OIL TANK
L	LIGHT POLE
	DISPENSER ISLAND
	MONITORING WELL
MW1 / N/A / B <1 / T <1 / E <1 / X <1 / MTBE <1 / 1,2,4-TMB <1 / 1,3,5-TMB <1 / 2-MeN <1 / NAPH <1	WELL IDENTIFICATION; GROUNDWATER ELEVATION (feet); BENZENE CONCENTRATION (ug/L); TOLUENE CONCENTRATION (ug/L); ETHYLBENZENE CONCENTRATION (ug/L); XYLENES CONCENTRATION (ug/L); MTBE CONCENTRATION (ug/L); 1,2,4-TRIMETHYLBENZENE CONCENTRATION (ug/L); 1,3,5-TRIMETHYLBENZENE CONCENTRATION (ug/L); 2-METHYLNAPHTHALENE CONCENTRATION (ug/L); NAPHTHALENE CONCENTRATION (ug/L)
ug/L	MICROGRAMS PER LITER
MTBE	METHYL *tert* –BUTYL ETHER
<#	WHERE AN ANALYTE IS NOT DETECTED, A METHOD DETECTION LIMIT IS GIVEN
N/A	NOT AVAILABLE

DRAFTED BY: D.M.K. (WALL)	GROUNDWATER MONITORING MAP 3 APRIL 2002
CHECKED BY:	SHELL SERVICE STATION WIC #221-8070-0704 975 ROCHESTER ROAD ROCHESTER HILLS, MICHIGAN
REVIEWED BY:	Groundwater & Environmental Services, Inc. 9436 MALTBY ROAD, BRIGHTON, MICHIGAN 48116
NORTH	SCALE IN FEET: 0 30 / DATE: 1-21-03 / FIGURE:

M:\Graphics\Graphics-DetroitShell\8070-0704 Rochester Hills\8070-0704 rochester hills SM.dwg, 01/21/2003 09:57:25 AM, DKessler, 1:30, GES

APPENDIX B

Appendix B

Soil Boring & Monitoring Well Diagrams

Monitoring Well Log

ID NO. **MW-9**

Groundwater and Environmental Services, Inc.

PROJECT:	**Shell: Rochester @ Avon**	SURFACE ELEV.:	**NA**	TOTAL DEPTH:	**15'**
ADDRESS:	**975 Rochester Rd, Rochester Hills, MI**	WATER DEPTH	**3.5'**	CASING EL.:	**NA**
JOB NO.	**Incident # 98998040**	BOREHOLE DIA.:	**8"**	WELL DIA.:	**2"**

Logged By:	**J. Bostek**	Drilling Method:	**Hand Auger, Direct Push, 4.25" ID HSA**
Dates Drilled:	**11/12/02**	Sampling Method:	**Continuous**
Drilling Company:	**Fibertec**	Soil Class. System:	**USCS**
Drill Rig Type:	**66 DT Geoprobe**	Field Screening:	**PID 10.6 eV Lamp (ppm)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec-overy	SAMPLE LITHOLOGY	Stratigraphy	Comments	COMPLETION DETAILS
0					ASPHALT	**ASPHALT**		Concrete Flush Mount
		7.7			CLAY: Silty, sandy, moist, brown, gray and green	**SILTY, SANDY CLAY**	CL	Bentonite Seal
2	Soil sample MW-9 (2-4)' analyzed			100%	SAND: Little silt and clay, trace organics, fine, moist, black	**SAND**	SW	2" PVC Riser
		38.2			SILTY SAND: Fine, wet, brown and gray	**SILTY SAND**		#5 Sand Pack
4							SM	
		9						2" Slot 0.010" Screen
6					CLAY: Silty, very soft, moist, brown	**SILTY CLAY**		
		0		100%			CL	Well Plug
8					CLAY: Little silt, trace sand, medium stiff, miost, brown	**CLAY**		
		0						
10							CL	
		0						
12	Soil sample MW-9 (12-14)' analyzed			100%	CLAY: Silty, sandy, moist, gray	**SILTY, SANDY CLAY**		
		0						
14							CL	

Location:

Northing/Latitude: **NA**

Easting/Longitude: **NA**

Horizontal Datum: **NA**

Vertical Datum: **NA**

General Comments:

Symbol Key:

Apparent Water Level

Lab Sample Location

Monitoring Well Log

ID NO. **MW-10**

Groundwater and Environmental Services, Inc.

PROJECT:	**Shell: Rochester @ Avon**	SURFACE ELEV.:	**NA**	TOTAL DEPTH:	**15'**
ADDRESS:	**975 Rochester Rd, Rochester Hills, MI**	WATER DEPTH	**5'**	CASING EL.:	**NA**
JOB NO.	**Incident # 98998040**	BOREHOLE DIA.:	**8"**	WELL DIA.:	**2"**

Logged By:	**J. Bostek**	Drilling Method:	**Hand Auger, Direct Push, 4.25" ID HSA**
Dates Drilled:	**11/12/02**	Sampling Method:	**Continuous**
Drilling Company:	**Fibertec**	Soil Class. System:	**USCS**
Drill Rig Type:	**66 DT Geoprobe**	Field Screening:	**PID 10.6 eV Lamp (ppm)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec-overy	SAMPLE LITHOLOGY	Stratigraphy	Comments	COMPLETION DETAILS
0					CLAY: Silty, sandy, moist, brown	SILTY, SANDY CLAY	CL	Concrete Flush Mount
2		0						Bentonite Seal
					SAND: Fine to medium grained, moist, brown	SAND	SP	
				100%	CLAY: Silty, sandy, moist, brown	SILTY, SANDY CLAY	CL	2" PVC Riser
4	Soil sample MW-10 (4-6)' analyzed	0			SAND: Gravelly, fine to coarse grained, moist, brown	GRAVELLY SAND	SP	
					SILTY SAND: Clayey, trace organics, fine, moist, black and dark brown	SILTY, CLAYEY SAND	SM, SC	#5 Sand Pack
6		0			SILTY SAND: Fine, wet, brown	SILTY SAND		2" Slot 0.010" Screen
		0		100%			SM	
8								Well Plug
10		0			CLAY: Silty, sandy, very soft, moist, brown	SILTY, SANDY CLAY		
		0						
12	Soil sample MW-10 (12-14)' analyzed			100%	CLAY: Silty, sandy, soft, moist, gray		CL	
		0						
14								

Location:

Northing/Latitude: **NA**

Easting/Longitude: **NA**

Horizontal Datum: **NA**

Vertical Datum: **NA**

General Comments:

Symbol Key:

Apparent Water Level

Lab Sample Location

Monitoring Well Log

ID NO. **MW-11**

Groundwater and Environmental Services, Inc.

PROJECT:	**Shell: Rochester @ Avon**	SURFACE ELEV.:	**NA**	TOTAL DEPTH:	**15'**
ADDRESS:	**975 Rochester Rd, Rochester Hills, MI**	WATER DEPTH	**3'**	CASING EL.:	**NA**
JOB NO.	**Incident # 98998040**	BOREHOLE DIA.:	**8"**	WELL DIA.:	**2"**

Logged By:	**J. Bostek**	Drilling Method:	**Hand Auger, Direct Push, 4.25" ID HSA**
Dates Drilled:	**11/12/02**	Sampling Method:	**Continuous**
Drilling Company:	**Fibertec**	Soil Class. System:	**USCS**
Drill Rig Type:	**66 DT Geoprobe**	Field Screening:	**PID 10.6 eV Lamp (ppm)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec-overy	SAMPLE LITHOLOGY	Stratigraphy	Comments	COMPLETION DETAILS
0	Soil sample MW-11 (2-4)' analyzed	0		100%	SILTY SAND: Clayey, trace organics, fine, moist, black and dark brown	**SILTY, CLAYEY SAND**	SM, SC	Concrete Flush Mount Bentonite Seal 2" PVC Riser
2		0			SILTY SAND: Fine, wet, brown	**SILTY SAND**	SM	#5 Sand Pack
4		0			CLAY: Silty, sandy, moist, brown and gray	**SILTY, SANDY CLAY**	CL	
					SILTY SAND: Fine, wet, brown	**SILTY SAND**	SM	2" Slot 0.010" Screen
6		0		100%	CLAY: Silty, sandy, very soft, moist, brown	**SILTY, SANDY CLAY**		Well Plug
8		0						
10		0					CL	
12	Soil sample MW-11 (12-14)' analyzed	0		100%	CLAY: Silty, sandy, soft, moist, gray			
14								

Location:

Northing/Latitude: NA

Easting/Longitude: NA

Horizontal Datum: NA

Vertical Datum: NA

General Comments:

Symbol Key:

Apparent Water Level

Lab Sample Location

Monitoring Well Log

ID NO. **MW-12**

Groundwater and Environmental Services, Inc.

PROJECT:	**Shell: Rochester @ Avon**	SURFACE ELEV.:	**NA**	TOTAL DEPTH:	**13'**
ADDRESS:	**975 Rochester Rd, Rochester Hills, MI**	WATER DEPTH	**5.5'**	CASING EL.:	**NA**
JOB NO.	**Incident # 98998040**	BOREHOLE DIA.:	**8"**	WELL DIA.:	**2"**

Logged By:	**J. Bostek**	Drilling Method:	**Hand Auger, Direct Push, 4.25" ID HSA**
Dates Drilled:	**11/13/02**	Sampling Method:	**Continuous**
Drilling Company:	**Fibertec**	Soil Class. System:	**USCS**
Drill Rig Type:	**66 DT Geoprobe**	Field Screening:	**PID 10.6 eV Lamp (ppm)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec-overy	SAMPLE LITHOLOGY	Stratigraphy	Comments	COMPLETION DETAILS
0					CLAY: Silty, sandy, trace organics, moist, brown	**SILTY, SANDY CLAY**	CL	Concrete Flush Mount
		0						Bentonite Seal
2				100%	SILTY SAND: Clayey, fine, moist, black	**SILTY, CLAYEY SAND**	SM, SC	2" PVC Riser
		0			SAND: Fine, moist, brown	**SAND**	SW	
4	Soil sample MW-12 (4-6)' analyzed				CLAY: Silty, sandy, moist, brown and gray	**SILTY, SANDY CLAY**	CL	#5 Sand Pack
		0			SILTY SAND: Fine, moist, brown	**SILTY SAND**		
6					SILTY SAND: Trace clay, fine, wet, brown		SM	2" Slot 0.010" Screen
		0		100%	CLAY: Silty, sandy, very soft, moist, brown	**SILTY, SANDY CLAY**		
8								Well Plug
		0						
10	Soil sample MW-12 (10-12)' analyzed				CLAY: Silty, sandy, moist, brown		CL	
		0		100%				
12								

Location:

Northing/Latitude: **NA**

Easting/Longitude: **NA**

Horizontal Datum: **NA**

Vertical Datum: **NA**

General Comments:

Symbol Key:

Apparent Water Level

Lab Sample Location

Monitoring Well Log

ID NO. **MW-13**

Groundwater and Environmental Services, Inc.

PROJECT:	**Shell: Rochester @ Avon**	SURFACE ELEV.:	**NA**	TOTAL DEPTH:	**15'**
ADDRESS:	**975 Rochester Rd, Rochester Hills, MI**	WATER DEPTH	**5'**	CASING EL.:	**NA**
JOB NO.	**Incident # 98998040**	BOREHOLE DIA.:	**8"**	WELL DIA.:	**2"**

Logged By:	**J. Bostek**	Drilling Method:	**Hand Auger, Direct Push, 4.25" ID HSA**
Dates Drilled:	**11/13/02**	Sampling Method:	**Continuous**
Drilling Company:	**Fibertec**	Soil Class. System:	**USCS**
Drill Rig Type:	**66 DT Geoprobe**	Field Screening:	**PID 10.6 eV Lamp (ppm)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec-overy	SAMPLE LITHOLOGY	Stratigraphy	Comments	COMPLETION DETAILS
0		0		100%	SILTY SAND: Trace organics and debris (wood), fine, moist, black	SILTY SAND	SM	Concrete Flush Mount
2		0						Bentonite Seal
4	Soil sample MW-13 (4-6)' analyzed	0			CLAY: Silty, sandy, moist, brown and gray	SILTY, SANDY CLAY	CL	2" PVC Riser
6		0			SAND: Fine, moist, black and brown	SAND	SW	#5 Sand Pack
8		0		100%	SILTY SAND: Fine, wet, brown	SILTY SAND	SM	2" Slot 0.010" Screen
10		0			CLAY: Silty, sandy, moist, brown	SILTY, SANDY CLAY	CL	Well Plug
12	Soil sample MW-13 (12-14)' analyzed	0		100%	CLAY: Silty, sandy, moist, gray			
14								

Location:

Northing/Latitude: NA

Easting/Longitude: NA

Horizontal Datum: NA

Vertical Datum: NA

General Comments:

Symbol Key:

Apparent Water Level

Lab Sample Location

APPENDIX C

Appendix C

Analytical Data Tables

Table I

Historical Dissolved Unleaded Gasoline Parameters Concentrations (ug/L)
Shell Oil Products US
Shell Service Station at 975 South Rochester @ Avon, Rochester, Michigan
WIC # 221-6185-0100

Well Identification	Date Collected	Date Analyzed	COMPOUNDS (ug/L)								
			Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	2-Methylnaphthelene	Naphthalene
MW-1	05/02/2001	05/10/2001	<1	<1	<1	<	<1	<1	<1	<1	<1
MW-1	04/03/2002	04/16/2002	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW-2	05/02/2001	05/10/2001	200	140	170	540	<5	100	33	<5	17
MW-2	04/03/2002	04/17/2002	2,500	2,300	1,500	6,800	110	1,400	480	50	230
MW-3	05/02/2001	05/10/2001	50	2	54	5	1	10	<1	<1	2
MW-3	04/03/2002	04/16/2002	48	1	48	6	4	22	<1	<1	1
MW-4	05/02/2001	05/10/2001	480	23	750	1,000	<5	31	12	<6	180
MW-4	04/03/2002	04/16/2002	190	6	100	58	<1	2	2	4	95
MW-5	05/02/2001	05/10/2001	71	2	8	<1	<1	<1	<1	<1	<1
MW-5	04/03/2002	04/16/2002	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW-6	05/02/2001	05/10/2001	3	<1	54	1	4	<1	<1	2	8
MW-6	04/03/2002	04/16/2002	1	<1	67	2	2	1	<1	2	8
MW-7	05/02/2001	05/10/2001	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW-7	04/03/2002	04/16/2002	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW-8	05/02/2001	05/10/2001	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW-8	04/03/2002	04/16/2002	<1	<1	<1	<1	<1	<1	<1	<1	<1
MDEQ Tier 1 Commercial III Volatilization to Indoor Air Inhalation RBSLs[1]			36,000	530,000	170,000	190,000	47,000,000	56,000	61,000	ID	31,000
MDEQ Tier 1 Commercial III Groundwater Contact RBSLs[1]			11,000	530,000	170,000	190,000	690,000	56,000	61,000	25,000	31,000

1) MDEQ Tier 1 Risk-Based Screening Levels (RBSLs) Per Operational Memorandum No. 4, Attachment 2, Dated June 2000

ID - Inadequate data to develop RBSL

NA	- Not Analyzed
<1	- Not detected above laboratory method detection limit
2,500	- Contaminant concentration above laboratory method detection limit
NONE	- Contaminant concentration above current MDEQ Tier 1 Commercial III RBSLs

Table II

Adsorbed BTEX, MTBE, Naphthalene, 2-Methylnaphthalene, & TMB (ULG) Concentrations
Shell Oil Products US
Shell Service Station at 975 Rochester Road, Rochester, Michigan
WIC # 221-6983-0100

Parameters	MDEQ Tier 1 Residential Soil Drinking Water Protection RBSLs[1] (ug/kg)	MDEQ Tier 1 Residential Direct Contact RBSLs[1] (ug/kg)	MDEQ Tier 1 Residential Soil Groundwater Surface Water Interface Protection RBSLs[1] (ug/kg)	MDEQ Tier 1 Soil Saturation Concentrations RBSLs[1] (ug/kg)	**MDEQ Tier 1 Commercial III Soil Direct Contact RBSLs[1] (ug/kg)**	**MDEQ Tier 1 Commercial III Soil Volatilization to Indoor Air Inhalation RBSLs[1] (ug/kg)**	Sample identification, depth, date collected, date analyzed, concentration (ug/kg)									
							MW-9 2-4' 11/12/02 11/16/02	MW-9 12-14' 11/12/02 11/16/02	MW-10 4-6' 11/12/02 11/16/02	MW-10 12-14' 11/12/02 11/16/02	MW-11 2-4' 11/12/18 11/16/02	MW-11 12-14' 11/12/02 11/16/02	MW-12 4-6' 11/13/02 11/16/02	MW-12 10-12' 11/13/02 11/16/02	MW-13 4-6' 11/13/02 11/16/02	MW-13 12-14' 11/13/02 11/16/02
Benzene	100	180,000	4,000	400,000	**400,000**	**8,400**	<63	<56	<60	<56	<65	<56	<59	<56	<62	<55
Toluene	16,000	250,000	2,800	250,000	**250,000**	**250,000**	<63	<56	<60	<56	<65	<56	<59	<56	<62	<55
Ethylbenzene	1,500	140,000	360	140,000	**140,000**	**140,000**	<63	<56	<60	<56	<65	<56	<59	<56	<62	<55
Xylenes	5,600	150,000	700	150,000	**150,000**	**150,000**	<63	<56	<60	<56	<65	<56	<59	<56	<62	<55
MTBE	800	1,800,000	15,000	59,000,000	**5,900,000**	**5,900,000**	<63	<56	<60	<56	<65	<56	<59	<56	<62	<55
Naphthalene	35,000	16,000,000	870	NA	**140,000,000**	**470,000**	90	<56	<60	<56	<65	<56	<59	<56	<62	<55
2-Methylnaphthalene	57,000	8,100,000	ID	NA	**72,000,000**	**ID**	66	<56	<60	<56	<65	<56	<59	<56	<62	<55
1,2,4-Trimethylbenzene	2,100	110,000	ID	110,000	**110,000**	**110,000**	110	<56	<60	<56	<65	<56	<59	<56	<62	<55
1,3,5-Trimethylbenzene	1,800	94,000	ID	94,000	**94,000**	**94,000**	<63	<56	<60	<56	<65	<56	<59	<56	<62	<55

NA	- Not Analyzed
<63	- Not detected above laboratory method detection limit indicated
90	- Contaminant concentration above laboratory method detection limit
NONE	- Contaminant concentration exceeds MDEQ Tier 1 Residential RBSLs

1) MDEQ Tier 1 Residential & Commercial III Risk-Based Screening Levels (RBSLs) Per Operational Memorandum No. 4, Attachment 2, Dated June 2000

ID Inadequate data to develop RBSLs

NA Not Applicable

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

DEQ

CONFIRMATION / REQUEST FOR DISCLOSURE OF DEQ RECORDS

Under The Freedom Of Information Act

(This information is required under Authority of Act 442, P. A. 1976 as amended in order to request public records information)

ALL INFORMATION MUST BE TYPED OR PRINTED EXCEPT FOR WRITTEN SIGNATURES

Company Name (If Applicable) Or Organization (If Any)	Business Phone #
PM Environmental, Inc.	Area Code (248) 336-9988
Requester's Name	Daytime Phone #
Alex Kozlowski (02-3141-1, 02-3132-1, 02-3138-1, 02-3131-1, 02-3134-1)	Area Code (248) 336-9988
Address (Street And Number)	Home Phone #
4080 West Eleven Mile Road	Area Code
City / State / Zip Code	
Berkley / MI / 48072	

I wish to **X examine** ☐ receive a copy of the following materials:

(Provide detailed descriptions of materials being requested and specify number of copies needed of each) (Attach additional sheets if necessary)

Review all available RRD files associated with

Safeway Acquisitions Group LLC, 975 S Rochester Rd, Rochester, Oakland Co. (FID 00009055) ✓
Safeway Acquisitions Group LLC, [redacted] Rochester Hills, Oakland Co. (FID 00010453)
Safeway Acquisitions Group LLC, [redacted] Oakland Co. (FID 00010462) - Kim
Safeway Acquisitions Group LLC, [redacted] Oakland Co. (FID 00010441) ✓
Safeway Acquisitions Group LLC, [redacted] Rochester Hills, Oakland Co. (FID 00010468) ✓

Possible copies may be necessary after review of the file.

NO. OF COPIES: ***Kelly Boyajian***

SR# 163957

All files have not arrived

☐ I hereby request a waiver or reduction in fees as provided in Section 4(1) of F.O.I.A. because I am indigent or receive public assistance. (Attach proof)

I understand the DEQ may take 10 additional business days, if necessary, to fill my request due to the diverse locations or large volume of the material. I understand that if it is determined that some or all of the materials which I have requested to review or have copied may not be disclosed, I will receive a written denial including the reason for denial and explaining my right to appeal. I also understand that I may be charged with costs associated with this request.

RECEIVED
JUN 20 2012
REMEDIATION DIVISION
SOUTHEAST MICHIGAN DISTRICT OFFICE

Alex J. Kozlowski

Signature of Requester (If available) _____ Date June 20, 2012

Please submit this completed confirmation / request to:

MICHIGAN DEPARTMENT ENVIRONMENTAL QUALITY
Remediation and Redevelopment Division
S. E. Michigan District Office
27700 Donald Court
Warren, MI 48092-2793

TELEPHONE NO.:
Email: boyajiank@michigan.gov

If you have any questions regarding this request, please contact:

S. E. Michigan District Office	Unit
DEQ Employee Name	Telephone No. Area Code

Date this request was completed:

-THIS IS NOT A BILL-

You will be invoiced separately for any charges listed.

FOR DEPARTMENT OF ENVIRONMENTAL QUALITY USE ONLY

This section to be completed by the DEQ division/office employee fulfilling this request

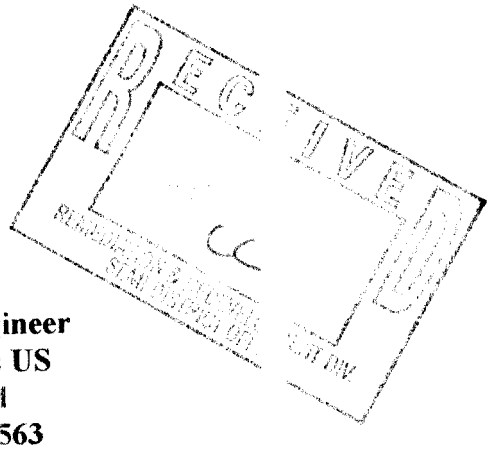
Detail of Charges		
Labor	$ _____	INDEX
Labor	$ _____	PCA
Copying	$ _____	AGENCY OBJECT 8857
Mailing	$ _____	PROJECT
TOTAL	$ _____	PHASE

EQP 1046 (Rev 10/00)

Closure Report

Former Shell # 138063
975 Rochester Road
Rochester Hills, Michigan 48037
Facility ID # 00009055

Oakland



Prepared for:

John Robbins
Environmental Engineer
Shell Oil Products US
603 Diehl Road
Naperville, IL 60563

Prepared by:

Groundwater & Environmental Services, Inc.
9436 Maltby Road
Brighton, MI 48116

August 27, 2004

DEQ

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY –
PO BOX 30426, LANSING, MI 48909-7926, Phone 517-373-9837, Fax 517-373-2

DATE ENTERED INTO DATABASE 8-30-04

STAFF INITIALS: CAK

LEAKING UNDERGROUND STOI 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 21313a of 1994 PA 451, as amended.** PLEASE RETURN THIS COMPLETED REPORT AND ASSOCIATED ATTACHMENTS TO THE APPROPRIATE RRD DISTRICT OFFICE. See form eqp4410 for a complete list of RRD district offices.

FACILITY NAME: **Former Shell 975 Rochester Rd. # 138063**	FACILITY ID NUMBER: **0-00905**
STREET ADDRESS: **975 Rochester Rd.**	
CITY: **Rochester Hills** ZIP: **48037** COUNTY: **Oakland**	
DATE(S) RELEASE DISCOVERED: **04/08/1996 & 04/24/1996**	CONFIRMED RELEASE NUMBER(S): **C-0214-96 & C-0252-96**
O/O NAME: **Shell Oil Products US**	
O/O STREET ADDRESS: **603 Diehl Road, Naperville** STATE: **IL** ZIP: **60563**	
CONTACT PERSON: **John Robbins**	PHONE NUMBER: **(630) 276-4206**

ANSWER ALL QUESTIONS (DO NOT LEAVE BLANKS):

1. a. Has the UST been emptied? ☐YES ☒NO (If no, explain why): **Currently Active**
   b. Has the UST system been properly closed? ☐YES ☒NO (If no, explain why): **Currently Active**
2. 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:
3. Have vapors been identified in any confined spaces (basement, sewers, etc.)? ☐YES ☒NO
4. State the number of homes where drinking water is or was affected as a result of a release from this facility: **Zero**
5. Estimated distance and direction from point of release to nearest:
   a. Private well: **150 feet South** b. Municipal well: **>1/2 Radial Mile** c. Surface water/wetland: **>1/2 Mile North**
6. Since last report: a. cubic yards of soil remediated: **Zero** b. gallons of groundwater remediated: **Zero**
7. Totals to date: a. cubic yards of soil remediated: **40 yd^3** b. gallons of groundwater remediated: **Zero**
8. Michigan RBCA Site Classification (1-4): **4** Previous RBCA Site Classification (1-4): **3**
9. Has contamination migrated off-site above Tier 1 Residential RBSLs ☐YES ☒NO
   If YES, have off-site impacted parties been notified (per Section 21309a(3) of Part 213) ☐YES ☐NO
10. Is an institutional control required for contamination that has migrated or will migrate off-site? ☒YES ☐NO
11. MTBE — Has MTBE been detected in any groundwater sample? ☒YES ☐NO — Maximum concentration of MTBE found in ground water: **2 ppb**.

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 the report was submitted to the Remediation & Redevelopment Division (RRD) on 8/26/04 (Date submitted **REQUIRED**)

RECEIVED AUG 30 2004 REMEDIATION & REDEVELOPMENT DIV. RRD DISTRICT OFFICE

CP Original Signature - (**REQUIRED**) — Date 8/26/04

Kirk Pompilius — PRINT CP's Name

CP ID: **894**

ADDRESS: **9436 Maltby Road, Brighton, MI 48116**

Jeffrey Berntsen — PRINT QC PROJECT MANAGER'S NAME

Groundwater & Environmental Services, Inc (GES) — NAME OF CONSULTING FIRM

QC ID: **Z0345**

PHONE: **(810) 227-0002** FAX: **(810) 227-0008**

CERTIFICATION OF CLOSURE

1. Type of RBCA Evaluation: ☒**Tier 1** ☐Tier 2 ☐Tier 3
2. Closure report based on which type of land use?: ☐Residential ☒**Commercial III** ☐Commercial IV ☐Industrial
3. Institutional Controls: ☐None ☐Notice of Corrective Action ☒**Restrictive Covenant** ☐Other

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, 1994 PA 451, as amended, and current departmental guidance and procedures available at the time the work was completed. 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.

CP Signature - (REQUIRED) _____ Date 8/26/04

Instructions - Utilize the following checklist to ensure that all required information is provided in the Closure Report. Include this checklist as the table of contents. The order in which the information is provided is at your discretion. Each page of the report (including the cover sheet, table of contents, appendices, figures, etc.) should be consecutively numbered. The location column should be completed with the appropriate page number for each item. You may reference previously submitted materials by specifying the location within that document. Maps, tables, figures, etc. should be combined as appropriate.

All information required by Part 213 to be included in the Closure Report **must** be provided, and all sections of the report must be completed. If any items are not applicable to the site, provide a justification regarding the absence of this information in the appropriate section of the report.

If an Initial Assessment Report (IAR) and/or a Final Assessment Report (FAR) have not been submitted for this release, provide all required information from the IAR and/or FAR not included below.

Section	Table of Contents	Page

D. Describe any alternate mechanism utilized to restrict exposure to regulated substances as defined in Section 324.21310a(3), and justify how this mechanism reliably restricts exposure to the regulated substances. 12

2.8 PERMITS

List all discharge permits and/or permit exemptions that were required for the corrective action, and include the type of permit, permit number, application date, approval date and termination date. 11

2.9 CORRECTIVE ACTION PLAN

A. Summarize the corrective action activities that resulted in release closure. Include the operating history of any active treatment systems. 12

B. Summarize the types of monitoring activities performed, including the media and parameters monitored. 12

C. Attach performance monitoring data. 12

D. Describe and justify changes to the previously submitted Corrective Action Plan. 12

E. Provide the total volume of soil remediated, and include disposal location and proof of disposal (e.g., invoices, not load tickets) for all soils excavated subsequent to submittal of the last report, if appropriate. 12

F. Provide the total volume of groundwater actively remediated to date, and include disposal documentation, if appropriate. 12

3.0 CLOSURE VERIFICATION SAMPLING

3.1 SOIL CLOSURE VERIFICATION

NOTE: Verification sampling must be conducted whenever contaminated soils are identified but not remediated, including when contaminated soil is returned to an excavation after the removal of a UST.

A. Describe the soil verification sampling strategy applied at the site by providing the following:

1. A scaled site map 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.)* Appendix A
2. For a corrective action involving excavation, a scaled drawing(s) 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, adjoining conduits or potential migration pathways, and locations of former and existing UST system components, as appropriate. Appendix A
3. A description of how the number and location of samples collected for soil verification purposes was established. If your sampling strategy differs from the

MDEQ *Verification of Soil Remediation Guidance Document* and Storage Tank Division Operational Memorandum No. 9, *Groundwater and Soil Closure Verification Guidance,* provide justification. 12

4. A list of the analytical parameters used to verify the soil remediation. 12
5. A justification if all soil verification samples were not analyzed, preserved, and handled in accordance with the Storage Tank Division Operational Memorandum No. 14 *Analytical Parameters and Methods, Sample Handling, and Preservation for Petroleum Releases.* 12

B. Provide a table with laboratory data showing the results of all verification soil sampling performed to date for the required parameters. Refer to the Storage Tank Division Operational memorandum No. 14 *Analytical Parameters and Methods, Sample Handling, and Preservation for Petroleum Releases.* The table should include the following: Appendix B

1. Sample ID
2. Sample depth
3. Date of collection
4. Dates of extraction and analysis
5. Method Detection Limits
6. Analytical method

(NOTE: The RRD may request copies of the laboratory data sheets, chain-of-custody forms, and all available QA/QC information.)

C. Provide copies of all soil boring logs not previously submitted. Appendix C

3.2 GROUNDWATER CLOSURE VERIFICATION

A. Describe the groundwater verification sampling strategy applied at the site by providing the following: 13

1. A scaled site map which identifies the former extent of groundwater contamination, the groundwater verification sampling locations relative to existing site features, and the groundwater flow direction(s). *(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.)*
2. A description of how the sampling frequency and duration of sampling for groundwater verification purposes was established. If your sampling strategy differs from the Storage Tank Division Operational Memorandum No. 9.
3. A list of the analytical parameters used to verify groundwater closure
4. A justification if all groundwater verification samples were not analyzed, preserved, and handled in accordance with the Storage Tank Division Operational Memorandum No. 14 *Analytical Parameters and Methods, Sample Handling, and Preservation for Petroleum Releases.*

B. Provide a table with laboratory data showing the results of all verification groundwater sampling performed to date for the required parameters. Refer to the Storage Tank Division Operational Memorandum No. 14 *Analytical Parameters and Methods, Sample Handling, and Preservation for Petroleum Releases.* The table should include the following: Appendix B

1. Sample ID
2. Sampling depth or screened interval
3. Date of collection

4. Dates of extraction and analysis
5. Method Detection Limits
6. Analytical method

(NOTE: The RRD may request copies of the laboratory data sheets, chain-of-custody forms, and all available QA/QC information.)

C. Attach copies of the following: **Appendix B**
1. Boring logs not previously submitted.
2. Well construction diagrams not previously submitted.
3. Potentiometric surface maps for each groundwater verification sampling event.
4. Elevation data (USGS datum preferred), including top-of-casing and grade elevations, and depth to groundwater for each groundwater verification sampling event.

3.3 CLOSURE VERIFICATION FOR OTHER MEDIA

A. Describe the verification sampling strategy for other media applied at the site. 13

B. Provide a scaled site map which identifies the verification sampling locations relative to existing site features and boundaries, if appropriate. 13

C. Provide a table with the laboratory data showing the results of all verification sampling performed to date in the other specified environmental media. 13

(NOTE: The RRD may request copies of the laboratory data sheets, chain-of-custody forms, and all available QA/QC information.)

1.0 PROJECT CHRONOLOGY

Groundwater & Environmental Services, Inc. (GES) was retained by Shell Oil Products US (Shell) to prepare this Tier 1 Commercial III Closure Report to address the two confirmed releases (C-0214-96 & C-0252-96) at the former Shell branded retail gasoline service station located at 975 Rochester Road in Rochester Hills, Oakland County Michigan (site).

1.1 Confirmed Releases

On April 8, 1996, a confirmed waste oil release was reported to the MDEQ following a failed tightness test on the on-site waste oil UST. Later, on April 25, 1996, a confirmed unleaded gasoline release was reported to the MDEQ – Storage Tank Division (STD) following the discovery of hydrocarbon-impacted soils encountered during on-site UST system upgrade and replacement activities.

1.2 Site Description

The site is currently a Shell branded retail gasoline station located at the northeast corner of the intersection of Rochester and Avon Roads in Rochester Hills, Michigan. The site currently operates as a retail gasoline station and is surrounded by commercial properties. The predominant site feature is a masonry brick building located within the northeast corner of the parcel.

The gasoline UST system, located directly south and west of the site building, consists of following components:

- One (1) 10,000-gallon fiberglass-lined steel unleaded gasoline UST;
- One (1) 10,000-gallon fiberglass unleaded gasoline UST;
- One (1) 6,000-gallon steel unleaded gasoline UST;
- Four (4) multi-product dispensers (MPDs) on two (2) islands;
- Rigid fiberglass petroleum product piping supplying the MPDs;
- Tank vent piping; and
- A 1,512 ft^2 steel canopy over the two islands.

Refer to Appendix A for a site map with prominent site features including the site building and UST system layout.

1.3 Site History and Previous Report Submittals

An Initial Assessment Report (IAR) was submitted to the MDEQ, on Shell's behalf, on July 5, 1996. A FAR was submitted to the MDEQ, on behalf of Shell, on April 8, 1997. Most recently, GES, on behalf of Shell, submitted a Groundwater Monitoring / Site Status Report to the MDEQ on January 23, 2003.

2.0 SUMMARY OF CORRECTIVE ACTIONS PERFORMED

2.1 Immediate Response Activities

Immediate response activities performed on-site addressing the confirmed unleaded gasoline and waste oil releases are discussed in detail in the July 5, 1996, IAR.

2.2 Corrective Actions Performed

Corrective actions performed on-site addressing the confirmed unleaded gasoline and waste oil releases are discussed in detail in the July 5, 1996, IAR. Recently, GES has completed several groundwater monitoring events, installed five (5) monitoring wells, and drafted a Restrictive Covenant and Notices of Corrective Action.

Refer to Appendix C for the restrictions and notices.

2.3 Free Product Discovery and Removal

According to a review of previous site data, no free product has been discovered on-site.

2.4 Site Assessment Activities

2.4.1 Scaled Site Maps

Refer to Appendix A, for a scaled site map.

2.4.2 Site Geology

Soil conditions documented in previously completed regulatory reports as well as those encountered by GES during the January 2003 monitoring well installation activities consist primarily of coarse, sand-based fill material extending from directly beneath the surface pavement to approximately 4-feet below surface grade (BSG), underlain by silty firm clay to approximately 15-feet BSG. The maximum explored depth on-site is approximately 16-feet BSG.

Refer to the March 4, 2003, FAR, Appendix A, for cross section diagrams and Appendix B, for boring log diagrams.

2.4.3 Evaluation of Horizontal and Vertical Delineation of Soil

To accurately determine the current horizontal and vertical extent of hydrocarbon distribution on-site, GES evaluated laboratory analytical data generated from on- and off-site soil and groundwater samples, as presented in previously submitted reports. Additionally, GES also evaluated recent data generated for the soil and groundwater samples collected in 2002 and 2003. Moreover, to further evaluate complete

delineation, GES conducted a direct comparative analysis between the laboratory data and the Tier 1 Residential and Commercial Risk Based Screening Levels (RBSLs) per MDEQ Operational Memorandum No. 4, Revision 5, dated June 2000. Refer to Appendix B for analytical data tables developed to present the soil and groundwater data generated for samples collected by GES in 2002 and 2003.

For the purposes of this report, GES evaluated the current horizontal and vertical distribution of hydrocarbons, both on- and off-site, using those data generated from the 10 soil and 9 groundwater samples collected from borings installed under the direct supervision of GES in November 2002 and January 2003, respectively. These samples were analyzed for MDEQ Unleaded Gasoline (ULG) parameters by GC/MS, Method SW8260B. This analysis targets the following compounds:

- Benzene, toluene, ethylbenzene, and xylenes (BTEX);
- Methyl tertiary-butyl ether (MTBE);
- 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene (TMBs);
- Naphthalene; and
- 2-Methylnaphthalene.

Review of the laboratory analytical data summaries prepared for these samples reveals complete vertical delineation has been achieved, as all hydrocarbon concentrations detected in soil samples collected deeper than 12-feet BSG do not exceed the applicable MDEQ Tier 1 Residential RBSLs. Refer to the following Section 2.6 Tiered Evaluation and Cleanup Goals for a discussion of the selection and determination of applicable screening levels.

Further review also reveals complete horizontal on-site delineation has been achieved based on an evaluation of the analytical data obtained from soil samples collected from MW-5, MW-9, MW-10, MW-12, and MW-13. According to this evaluation, detected hydrocarbon concentrations do not exceed the applicable Residential RBSLs.

Furthermore, those concentrations detected in soil samples collected from locations in close proximity to adjoining utility corridors and corresponding property boundaries do not exceed the Tier 1 Residential RBSLs, also per the above mentioned MDEQ Operational Memorandum Number 4.

2.4.4 Groundwater Conditions and Characteristics

GES assumed environmental consulting services at the site in January 2001. Upon review of the historical site data, GES recognized consistently elevated dissolved phase concentrations detected in groundwater samples collected from MW-2, MW-3, MW-4, and MW-5 as compared to other data obtained from other on-site monitoring wells. Furthermore, previous site investigations also indicated a southern groundwater flow direction. Consequently, in May 2001 and April 2002, GES

sampled all existing on-site monitoring wells to evaluate current groundwater conditions on-site, particularly those well locations in close proximity to the southern property boundary. Review of the groundwater analytical data indicated that dissolved concentrations at MW-2, MW-3, and MW-4 remained elevated above the Tier 1 Residential Drinking Water and Groundwater / Surface Water Interface RBSLs. Therefore, on November 12, 2002, GES supervised the installation and construction of five (5) monitoring wells, designated MW-9, MW-10, MW-11, MW-12, and MW-13 to delineate those concentrations detected along the southern property boundary.

Specifically, the following monitoring wells were installed in the following locations to serve the following purposes:

- MW-9 and MW-10 were installed on-site to confirm eastern and western delineation of concentrations detected in MW-2, MW-3, MW-4, and MW-5;
- MW-10 and MW-11 were installed along the southern property boundary and within the northern Avon Road right-of-way, respectively, to evaluate contaminant migration into and along the public utility corridor located therein; and
- MW-12 and MW-13 were installed within Avon Road's southern right-of-way to confirm the southern delineation of concentrations detected in MW-4 and MW-5.

On January 22, 2003, GES sampled MW-2, MW-3, MW-4, MW-5, MW-9, MW-10, MW-11, MW-12, and MW-13. A detailed review of the laboratory analytical data generated from groundwater samples collected from these locations indicates that complete southern, eastern, and western delineation was achieved as hydrocarbon concentrations in groundwater samples collected from MW-10, MW-11, MW-12, and MW-13 do not exceed the MDL. Furthermore, on February 20, 2003, GES surveyed and gauged on- and off-site monitoring wells and confirmed a south / southeast groundwater flow direction.

Refer to Appendix A for a site map. Refer to Appendix B for updated soil and groundwater analytical data tables. Refer to the March 4, 2003 FAR, Appendix B, for soil boring and monitoring well diagrams.

To evaluate groundwater conditions on-site, GES reviewed information provided in the 1997 FAR, prepared on behalf of Shell by Enecotech Midwest, Inc., addressing the 1996 confirmed releases. In addition, GES also reviewed current data obtained from the recently installed monitoring wells MW-9 through MW-13. Based on historical site information as presented in the 1997 FAR, the following groundwater characteristics were determined:

- Hydraulic Conductivity: 1×10^{-6} cm/sec
- Lateral Hydraulic Gradient: 0.02 ft/ft
- Effective Flow Rate: 0.1 ft/yr
- Predominant Saturated Soil Type: Silty sand
- Effective Porosity: 0.15 $cm^{3\ void}/cm^{3\ soil}$

Review of the well construction diagrams prepared for all previously and recently constructed on-site monitoring wells indicates each well was properly completed with properly screened intervals based upon the documented soil conditions encountered at those specific locations, as presented in the diagram.

Refer to the March 4, 2003, FAR for soil boring and monitoring well logs.

According to elevation data obtained from MW-3, MW-4, MW-5, MW-9, MW-10, MW-11, MW-12, and MW-13 in February 2003, GES has determined on-site groundwater flows in a southeastern direction.

Based on a review of available site information, including previously submitted reports, regional water well records, and field observations made during the recent monitoring well installation activities, ***GES considers on-site groundwater to be laterally extensive, but not in communication with the deeper, potable zones identified in regional water well records.*** The following characteristics aid in justification:

- A review of regional water well records indicates that a continuous confining clay layer underlay the general vicinity from approximately 9 to 70-feet BSG. The groundwater encountered on-site is not likely to be in direct communication with a deeper aquifer; and
- Regional drinking water wells are constructed with screen intervals ranging between 120 and 147-feet BSG. GES has no indication that these water wells are producing potable supplies from the shallow, impacted groundwater zone on-site.

According to the MDEQ Drinking Water and Radiological Protection Division, the site is not located within a current wellhead protection zone. Municipal water supplies the site. Finally, according to the Oakland County Health Department personnel, no crock wells are located in the site's vicinity.

Based on these characteristics, on-site groundwater is considered to be perched, non-communicative with the deeper water bearing strata, and cannot be considered a potable groundwater pathway as defined by MDEQ Part 213 Operational Memorandum No. 11.

Refer to the March 4, 2003 FAR, Appendix C, for regional water well logs.

2.5 Site Classification

The previous site classification was Class 4, per the 1997 FAR, completed by Enecotech, on behalf of Shell. However, given current site conditions, GES considers the site to fulfill the Class 3 requirements per the draft Operational Memorandum No. 5, dated 07/10/95, and revised 08/28/2002, as drafted.

Therefore, site conditions do not demonstrate a long-term threat to human health, safety, or sensitive environmental receptors.

Refer to the previous Section *2.4.4 Groundwater Conditions and Characteristics* for a detailed discussion of on-site groundwater.

2.6 Tiered Evaluation and Cleanup Goals

2.6.1 Transport Mechanisms Evaluation/Elimination – Soil and Groundwater

GES evaluated potential transport mechanisms and exposure pathways to identify potential hydrocarbon migration pathways that may present a potential risk to a receptor. The following Exhibit A summarizes this evaluation.

Refer to the following page 7.

Exhibit A
Potential Sources, Transport Mechanisms, and Exposure Pathways

Impacted Surface Soil (<2 feet depth)

Transport Mechanisms	Exposure Pathways	Applies to Site	Complete Pathway
Direct Contact	Soil, Dermal Contact/Ingestion/Absorption	NO[1,2]	NO[1,2]
Wind Atmospheric Dispersion	Soil Ingestion/Absorption	NO[1,2]	NO[1,2]
Volatilization and Atmospheric Dispersion	Inhalation	NO[1]	NO[1]
Volatilization and Enclosed-Space Accumulation			
Leaching and Groundwater Transport	Ingestion/Use	NO[1,3]	NO[1,3]

Impacted Subsurface Soil (>2 feet depth)

Transport Mechanisms	Exposure Pathways	Applies to Site	Complete Pathway
Volatilization and Atmospheric Dispersion	Inhalation	YES[4]	NO[4]
Volatilization and Enclosed-Space Accumulation			
Leaching and Groundwater Transport	Ingestion/Use	NO[3]	NO[4]
Utility Worker	Direct Contact	YES[4]	NO[4]

Dissolved Groundwater Plume

Transport Mechanisms	Exposure Pathways	Applies to Site	Complete Pathway
Volatilization and Atmospheric Dispersion	Inhalation	NO[3]	NO[3]
Volatilization and Enclosed-Space Accumulation			
Utility Worker	Direct Contact	NO[3]	NO[3]
Groundwater Exposure	Ingestion	YES[3]	NO[3]

Free-Phase Liquid Plume

Transport Mechanisms	Exposure Pathways	Applies to Site	Complete Pathway
Volatilization and Atmospheric Dispersion	Inhalation	NO[5]	NO[5]
Volatilization and Enclosed-Space Accumulation			
Leaching and Groundwater Transport	Ingestion/Use	NO[3,5]	NO[3,5]
Mobile Free-Phase Liquid Migration	Direct Contact	NO[5]	NO[5]

Groundwater – Surface Water Interface

Transport Mechanisms	Exposure Pathways	Applies to Site	Complete Pathway
Volatilization and Atmospheric Dispersion	Inhalation	NO[3]	NO[3]
Volatilization and Enclosed-Space Accumulation			
Direct Contact with Surface Water/Perched Groundwater Transport	Recreational/Direct Contact/Ingestion	NO[3,6]	NO[3,6]

1) All site soils covered with bituminous and/or concrete pavement. Restrictive Covenant will provide specific requirements for compliance.
2) Absence of stockpiled or uncovered impacted soils on-site.
3) Detected groundwater concentrations exceed the Tier 1 Drinking Water RBSLs but do not exceed the Tier 1 Volatilization to Indoor Air or Groundwater Contact RBSLs.
4) Detected concentrations exceed the Tier1 Residential Soil Volatilization to Indoor Air and Direct Contact RBSLs.
5) No free product has been encountered on-site.
6) The nearest surface water source is greater than 1/2 radial mile from the site.

2.6.2 *Tier 1 Analysis – Soil*

For the purposes of this report, GES conducted a Tier 1 analysis of on-site adsorbed hydrocarbon concentrations detected in soil samples collected from the recently completed MW-9, MW-10, MW-11, MW-12, and MW-13. These soil samples were analyzed for the presence of the following compounds:

- BTEX;
- MTBE;
- Naphthalene;
- 2-Methylnaphthalene; and
- TMBs.

Furthermore, refer to the information presented in the April 8, 1997, FAR completed on behalf of Shell by Enecotech, for details concerning evaluations of previously collected samples during historical investigative activities.

As presented in the previous Exhibit A, GES identified the following two soil exposure pathways and used them to select the appropriate RBSLs:

1. Volatilization to Indoor Air
2. Direct Contact with Soil

According to the City of Rochester Hills Planning and Zoning Department, the property is currently zoned B-3 Auto Service. The site is also currently surrounded by commercial properties. However, given the close proximity of previously detected elevated hydrocarbon concentrations to the southern property boundary, GES evaluated those hydrocarbon concentrations detected in soil samples collected from MW-9, MW-10, MW-11, MW-12, and MW-13 using the Residential Drinking Water Protection and Groundwater / Surface Water Interface Protection RBSLs per the MDEQ Part 213 Operational Memorandum No. 4, Attachment 2, Revision 5, dated June 2000. Furthermore, information presented in the April 8, 1997, FAR indicates that those concentrations detected in previously collected on-site soil samples did not exceed the Residential RBSLs.

Review of the analytical data summaries generated for the soil samples collected from MW-9, MW-10, MW-11, MW-12, and MW-13 indicate that only naphthalene, 2-methylnaphthalene, and 1,2,4 trimethylbenzene concentrations were detected in excess of the laboratory method detection limit (MDL) at MW-9. GES then compared these detected concentrations to the applicable Tier 1 Residential Drinking Water Protection and GSI Protection RBSLs. Furthermore, a review of hydrocarbon concentrations detected in samples collected during previous investigations reveals concentrations exceeding the applicable Tier1 Residential and Commercial III RBSLs. However, the properly filed Restrictive Covent provides for the complete excavation and proper disposal; of soils impacted by these concentrations and

likewise, eliminates the potential exposure pathway associated with those concentrations. Additionally, lead, cadmium and chromium concentrations detected in on-site soil samples exceeding the statewide background levels do not exceed the applicable Tier 1 Commercial II RBSLs.

Refer to Appendix C for the Restrictive Covenant and the specific provisions detailed therein.

Based on this comparative analysis detected hydrocarbon concentrations do not exceed the applicable Tier 1 Commercial III RBSL.

Refer to Appendix A for a Site Map. Refer to the April 8, 1997, FAR for a historical soil sample location map. Refer to Appendix B for soil analytical data tables.

2.6.4 Tier 1 Analysis – Groundwater

GES conducted a Tier 1 analysis of on-site dissolved hydrocarbon concentrations detected in groundwater samples collected from MW-2, MW-3, MW-4, MW-5, MW-9, MW-10, MW-11, MW-12, and MW-13. These groundwater samples were analyzed for the presence of the following compounds:

- BTEX;
- MTBE;
- Naphthalene;
- 2-Methylnaphthalene; and
- TMBs.

Refer to Appendix A for a site map with monitoring well locations and groundwater monitoring maps. Refer to Appendix B for groundwater analytical data tables.

As presented in the previous Exhibit A, GES identified the following two groundwater exposure pathways and used them to select the appropriate RBSLs:

1. Volatilization to Indoor Air
2. Direct Contact with Groundwater

Given the close proximity of previously detected elevated hydrocarbon concentrations to the southern property boundary, GES evaluated those hydrocarbon concentrations detected in groundwater samples collected from MW-2, MW-3, MW-4, MW-5, MW-9, MW-10, MW-11, MW-12, and MW-13 using the Residential Drinking Water and Groundwater / Surface Water Interface RBSLs per the MDEQ Part 213 Operational Memorandum No. 4, Attachment 2, Revision 5, dated June 2000.

Review of the laboratory analytical data summaries generated for on-site groundwater samples collected on March 11, 2004, revealed dissolved BTEX, MTBE, naphthalene, 2-methylnaphthalene, and TMBs concentrations exceeding the laboratory method detection limit (MDL) in groundwater samples collected from MW-2, MW-3, and MW-4. GES then compared these detected concentrations to the Tier 1 Residential RBSLs.

Hydrocarbon concentrations detected in samples collected from MW-2, MW-3, and MW-4 exceed the Residential Drinking Water and Groundwater / Surface Water Interface RBSLs per the MDEQ Part 213 Operational Memorandum No. 4, Attachment 2, Revision 5, dated June 2000. However, these concentrations do not exceed the applicable Commercial III Volatilization to Indoor and Groundwater Contact RBSLs. Moreover, samples collected from down gradient MW-11, MW-12, and MW-13 do not exceed the MDL.

Based on this direct comparative analysis, dissolved hydrocarbon concentrations detected in on-site groundwater samples do not exceed the applicable Tier 1 Commercial III RBSLs.

2.6.5 Tier 2 Evaluation - Soil

A Tier 2 analysis of on-site soil conditions is not necessary, as detected adsorbed hydrocarbon concentration do not exceed the applicable Tier 1 Residential RBSLs.

2.6.6 Tier 2 Evaluation - Groundwater

A Tier 2 analysis of on-site soil conditions is not necessary, as detected dissolved hydrocarbon concentration do not exceed the applicable Tier 1 RBSLs.

2.6.7 Utility Corridor Evaluation

Public utility corridors are located within the eastern right-of-way of Rochester Road, along the western property boundary and within the northern right-of-way of Avon Road, along the southern property boundary.

Municipal water enters the property at the western property boundary from Rochester Road near the northwest property corner, into the western building wall, nearest the northwest building corner. Gas utilities enter the site at the southern property boundary from Avon Road near the southeast property corner, into the northern building wall, nearer the northwest building corner. The sanitary sewer enters the site at the western property boundary from Rochester Road near the northwest property corner, into the western building wall, nearest the northwest building corner. The overhead electric utility enters the site from a pole located along the northern property boundary near the northeast corner of the property.

The following table summarizes these recognized utility corridors:

Utility	Relative Utility Locations	Approximate Depth in Feet Below Surface Grade
Water	From the eastern Rochester Road right-of-way at western property boundary into western building wall	5-feet
Gas	From the northern right-of-way of Avon Road at southern property boundary into northern building wall	4.5-feet
Electric	Overhead from the north property boundary	NA
Sanitary Sewer	From the eastern Rochester Road right-of-way at western property boundary into western building wall	5-feet

Refer to Appendix A, for a Site Map with utility locations and the corresponding depths thereof.

Furthermore, the sanitary sewer, identified under Avon Road, is likely not impacted by hydrocarbons originating on-site as all recognized utility corridors within both the northern and southern Avon Road rights-of-way have not been impacted or have been proven to not be a migratory pathway.

2.7 Modeling

No modeling was necessary to demonstrate closure.

2.8 Notices and Restrictions

A properly executed Restrictive Covenant, following the deed in perpetuity, has been filed with the Oakland County Register of Deeds. Furthermore, a Notice to Local Units of Government of Land Use Restrictions has been delivered to and received by both the City of Rochester Hills and the Oakland County Health Department.

Refer to Appendix C for copies of the filed Restrictive Covenant, Notices to Local Units of Government of Land Use Restrictions, and the corresponding proof of delivery thereof.

2.9 Permits

No discharge permits or permit exemptions are necessary to obtain closure.

2.10 Corrective Action

Corrective Action measures performed in response to the gasoline release consist of the following:

- To date, approximately 40 yd^3 of hydrocarbon impacted soil has been excavated and hauled off-site for proper disposal (refer to the 07/05/1996 IAR for specific information);
- Periodic groundwater sampling demonstrates that completely delineated dissolved hydrocarbons remain below the applicable MDEQ-RRD RBSLs;
- A properly executed Restrictive Covenant filed with the Oakland County Register of Deeds eliminates applicable human exposure routes to detected adsorbed and dissolved hydrocarbons via specific restrictions following the deed in perpetuity; and
- Avon Road serves to eliminate human exposure to dissolved hydrocarbon concentrations as confirmed by a conversation with the Road Commission of Oakland County Programming Department indicating that plans to move or alter the location of that public roadway do not exist

Refer to Appendix D for a statement of confirmation from the Road Commission of Oakland County Programming Department concerning Avon Road.

3.0 CLOSURE VERIFICATION SAMPLING

3.1 Soil Closure Verification

For the purposes of this report, GES assumes that soil samples collected by previous environmental consultants were collected in general accordance with prevailing MDEQ-RRD requirements and current industry standards.

GES personnel field screened soil samples collected continuously from the ground surface to the terminal depth of each boring. Representative samples were collected at two feet intervals for evaluation using a photo ionization detector (PID), properly calibrated with 100 ppm isobutylene gas, to determine the extent of hydrocarbon impact to subsurface soils as indicated by the highest PID measurement. GES personnel selected the sample exhibiting PID indication of hydrocarbon impact. Where no PID indication was apparent, a sample was collected from the observed vadose zone, immediately above the documented static water level at each boring location. Finally, GES personnel also collected a sample from the terminal depth of each boring to verify vertical delineation. Select soil samples were split into separated portions with one being sealed and placed in an iced cooler pending final selection for submittal and the other being placed into disposable plastic bags to evaluate headspace concentrations for the presence of volatile organic compound (VOC) concentrations using the

PID. Soil samples selected for final laboratory analysis were collected from the sample portion stored in the sealed iced cooler, field preserved with methanol per U.S. Environmental Protection Agency (EPA) SW-846 Method 5035, and immediately returned to the cooler pending laboratory submittal via over night courier to Southern Petroleum Labs (SPL), in Traverse City, Michigan. All samples were relinquished to SPL under Chain-of-Custody for MDEQ ULG Parameters.

*Review of the laboratory analytical data summary reports generated for these soil samples reveals that hydrocarbon concentrations **DO NOT** exceed the applicable MDEQ Part 213 Tier 1 Residential or Commercial III RBSLs.*

3.2 Closure Verification for Groundwater

GES personnel collected representative groundwater samples from on- and off-site monitoring wells to verify that detectable dissolved hydrocarbon concentrations do not exceed the applicable MDEQ-RRD RBSLs and remain delineated. Groundwater samples were collected in general accordance with STD Operational Memorandum No. 14 Analytical Parameters and Methods, Sample Handling, and Preservation for Petroleum Releases. For the purposes of this report, GES assumes that groundwater samples collected during previous investigations, conducted by other consultants, were preserved and handled in general accordance with the same. Furthermore, it is also assumed that these groundwater samples were analyzed for BTEX and MTBE per applicable MDEQ guidance at the time of collection and analysis.

*Review of the laboratory analytical data reveals that dissolved hydrocarbon concentrations detected above the MDL **DO NOT** exceed the applicable MDEQ Part 213 Tier 1 Residential or Commercial III RBSLs.*

3.3 Closure Verification for Other Media

Sampling of other media such as air, surface water, sediments, and biota was not necessary to demonstrate and obtain closure.

4.0 CONCLUSION

Based on current site conditions, evaluation and elimination of non-pertinent exposure pathways, and completion of a direct comparative analysis between laboratory analytical data and the MDEQ Part 213 Tier 1 Residential and Commercial III RBSLs, GES has determined that current site conditions adequately fulfill all Tier 1 Commercial III Closure requirements based on the following justifications:

1. Based on a review of available site information, including previously submitted reports, regional water well records, and field observations made during the recent monitoring well installation activities, GES considers on-site groundwater to be laterally extensive, but not in communication with the deeper, potable zones identified in regional water well records;

2. Based on a detailed evaluation of on-site utilities, hydrocarbons have not migrated off-site via these pathways;

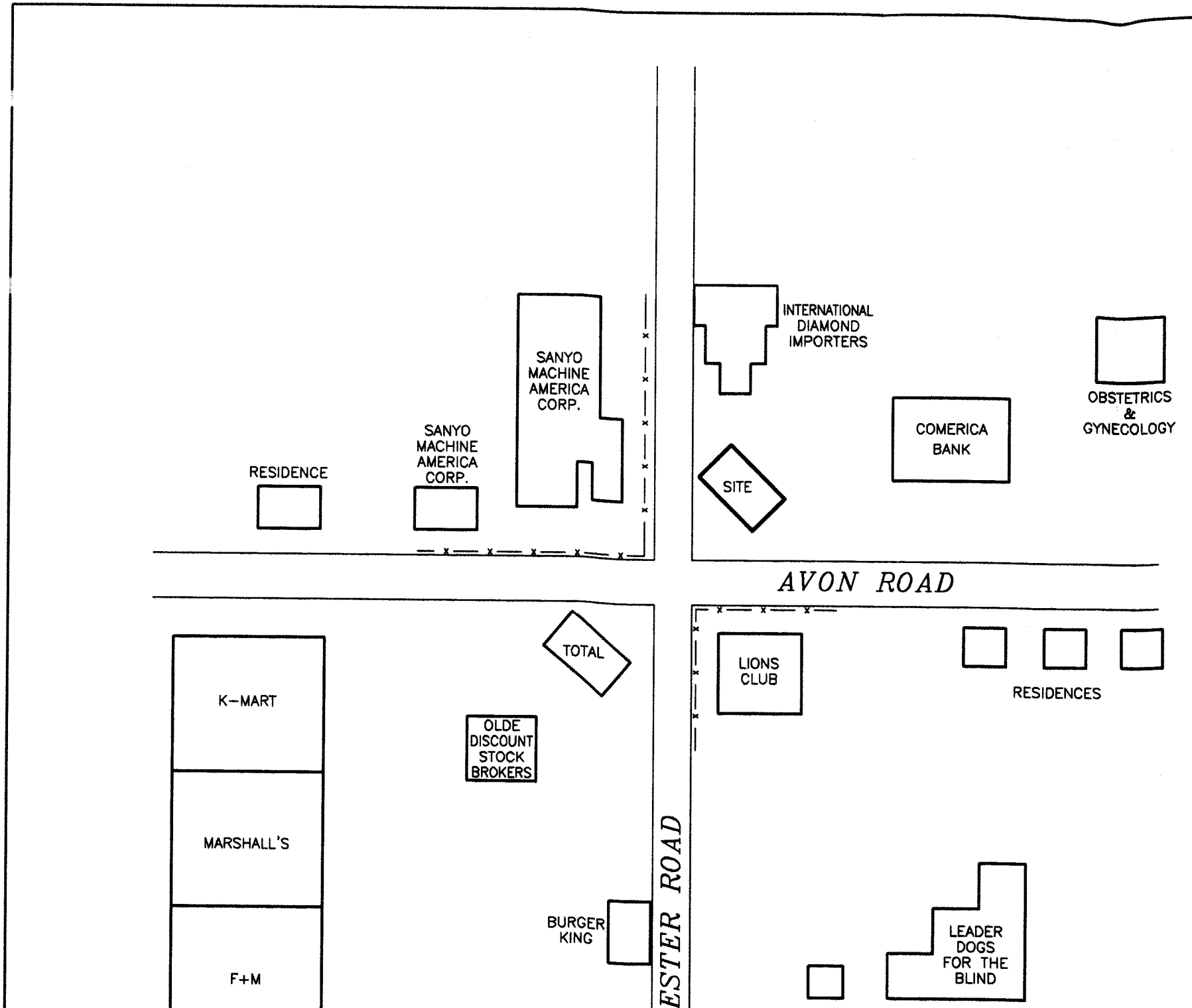
3. A properly executed Restrictive Covenant, filed with the Oakland County Register of Deeds, eliminates applicable human exposure pathways by preventing any Residential and Commercial I or II land use development as well as prohibiting the use of on-site groundwater;

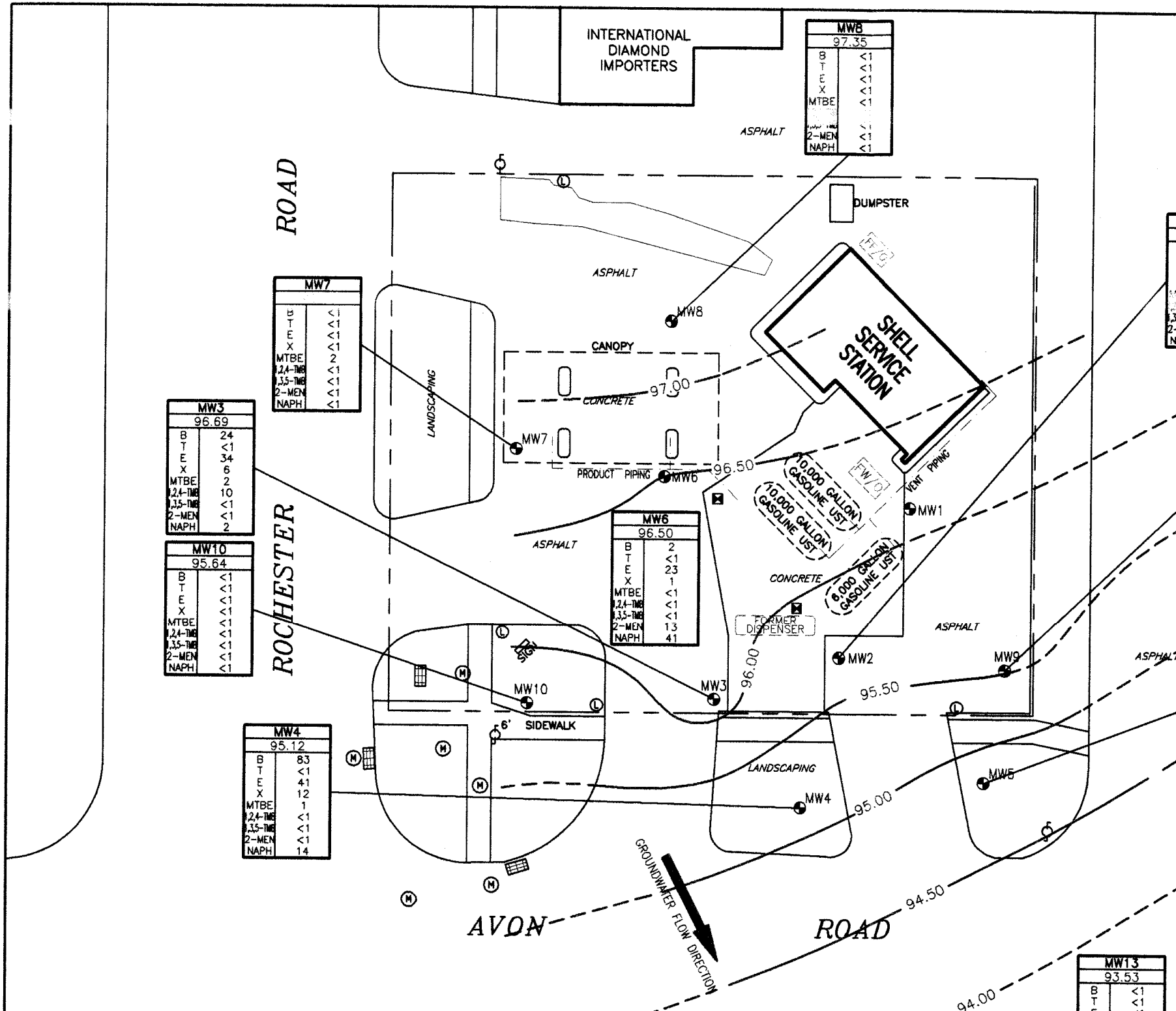
4. Adsorbed hydrocarbon concentrations detected on-site do not exceed the applicable MDEQ Part 213 Tier 1 Commercial III RBSLs;

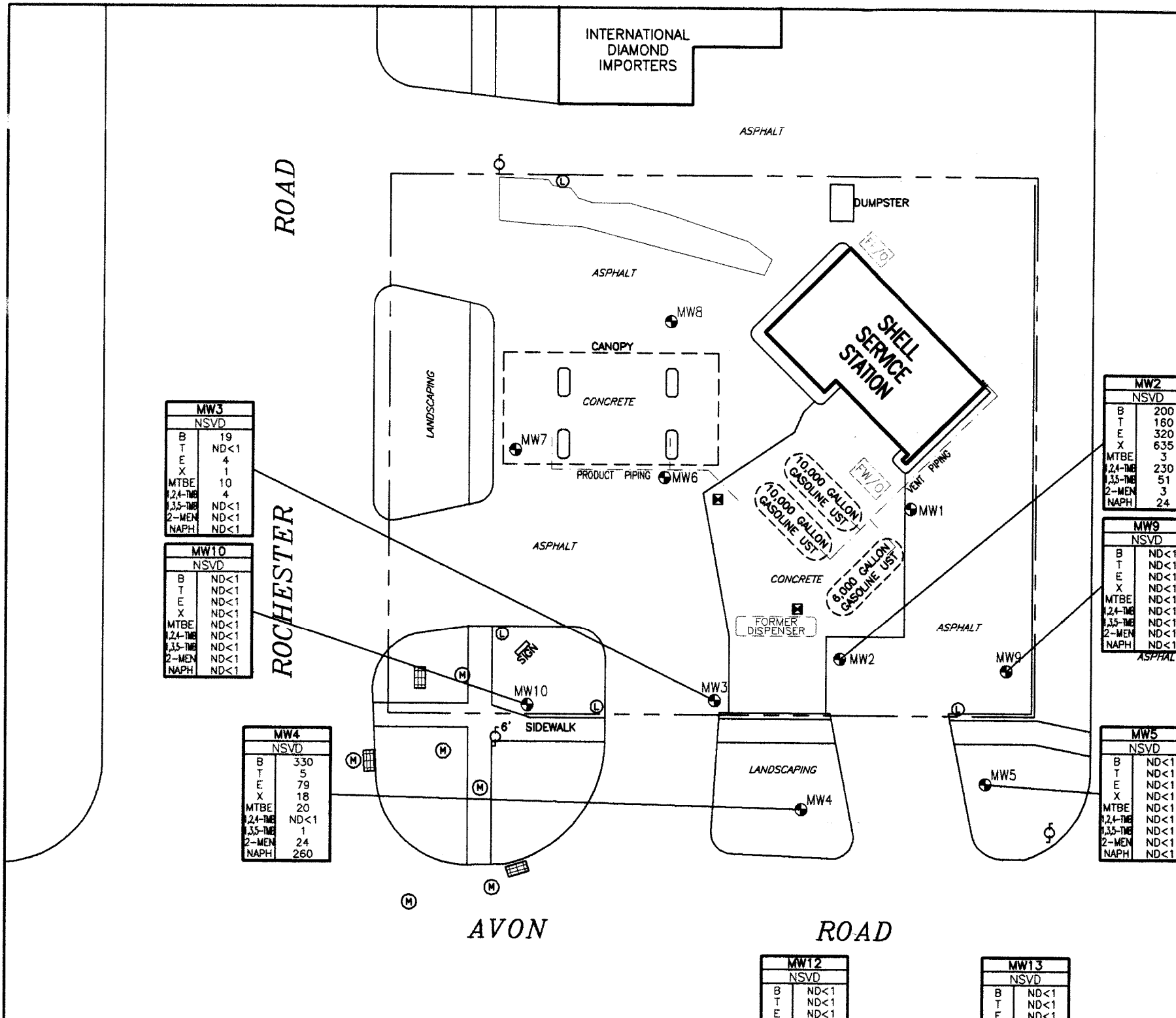
5. Dissolved hydrocarbon concentrations do not exceed the applicable MDEQ Part 213 Tier 1 Commercial III RBSLs;

6. Dissolved hydrocarbon concentrations detected in samples collected from monitoring wells along the southern property boundary exceeding the MDEQ Part 213 Tier 1 Drinking Water and Groundwater Surface Water RBSLs are completely delineated within a limited area directly surrounding the northern edge of Avon Road. The Road Commission of Oakland County Program Department has no plans to move or otherwise alter the location of Avon Road, and thus serves as an adequate engineering control mechanism.

Therefore, GES recommends a **TIER 1 COMMERCIAL III CLOSURE** with no further on-site activity.







SOIL ADSORBED CONCENTRATIONS (ug/kg)
Shell Oil Products US
Former Shell Station
975 Rochester Road
Rochester Hills, MI
SAP# 138063

PARAMETERS	MDEQ Residential "Drinking Water Protection" [1]	MDEQ Residential "Groundwater Surface Water Interface Protection" [1]	MDEQ Commercial III "Soil Volatilization to Indoor Air Inhalation" [1]	MDEQ Commercial III "Direct Contact" [1]	sample ID, depth, date sampled, date analyzed										
					BS-1[2] 8' 4/15/1996 4/27/1996	BS-2[2] 8' 4/15/1996 4/28/1996	NSW[2] 4' 4/15/1996 4/27/1996	SSW[2] 4' 4/15/1996 4/27/1996	ESW[2] 4' 4/15/1996 4/27/1996	WSW[2] 4' 4/15/1996 4/27/1996	S-1 2.5' 4/18/1996 4/24/1996	S-2 2.5' 4/18/1996 4/24/1996	S-3 2' 4/18/1996 4/24/1996	S-4 2' 4/18/1996 4/23/1996	PH-1 4-6' 10/17/1996 10/29/1996
Constituents of Concern															
BTEX & MTBE															
Benzene	100	4,000	8,400	400,000	<5	<5	<5	<5	<5	<5	8,700	14,000	28,000	<5	<5
Ethylbenzene	1,500	360	140,000	140,000	<5	<5	<5	<5	<5	<5	42,000	150,000	71,000	<5	<5
Methyl-tert-butyl ether	800	15,000	5,900,000	5,900,000	NA	NA	NA	NA	NA	NA	7,700	4,000	15,000	11	6
Toluene	16,000	2,800	250,000	250,000	<5	<5	<5	<5	<5	<5	20,000	32,000	47,000	<5	<5
Xylenes	5,600	700	150,000	150,000	<5	<5	<5	<5	<5	<5	173,000	510,000	320,000	<5	<5
VOLATILES															
Methylene chloride	100	19,000	240,000	2,300,000	6B	4B	8B	5B	4B	6B	NA	NA	NA	NA	NA
Tetrachloroethylene	100	900	60,000	88,000	NA	NA	NA	NA	1	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	2,100	570	110,000	110,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	1,800	1,100	94,000	94,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INORGANICS															
Total Cadmium	6,000	NC	NLV	2,100,000	140	90	80	190	210	60	NA	NA	NA	NA	NA
Chromium (VI)	30,000	3,300	NLV	10,000,000	17,800	16,400	50,300	50,500	47,300	39,400	NA	NA	NA	NA	NA
Lead	700,000	NC	NLV	400,000	4,570	4,850	5,500	15,400	31,600	5,110	NA	NA	NA	NA	NA
PNAs															
Benzo(a)anthracene	NLL	NLL	NLV	160,000	<230	<230	<230	320	<240	<230	NA	NA	NA	NA	NA
Benzo(b)fluoroanthene	NLL	NLL	ID	160,000	<230	<230	<230	320	<240	<230	NA	NA	NA	NA	NA
Benzo(a)pyrene	NLL	NLL	NLV	16,000	<230	<230	<230	360	<240	<230	NA	NA	NA	NA	NA
Fluoranthene	730,000	5,500	1,000,000,000	240,000,000	<230	<230	<230	550	270	<230	NA	NA	NA	NA	NA
Fluorene	390,000	5,300	1,000,000,000	120,000,000	<230	<230	<230	4,100	1,300	470	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NLL	NLL	NLV	160,000	<230	<230	<230	290	<240	<230	NA	NA	NA	NA	NA
2-Methylnaphthalene	57,000	ID	ID	37,000,000	<230	<230	<230	<240	<240	<230	NA	NA	NA	NA	NA
Naphthalene	35,000	870	470,000	72,000,000	<230	<230	<230	<240	<240	<230	NA	NA	NA	NA	NA
Pyrene	480,000	ID	1,000,000,000	150,000,000	<230	<230	<230	500	250	<230	NA	NA	NA	NA	NA

NC: No criteria
ID: Chemical has either not been evaluated or inadequate data precludes the development of Criteria
NLV: Not Likely to Volitalize under most conditions

NA	Not analyzed
<5	Not detected above laboratory detection limit
6	Above laboratory detection limit
3,500	Above applicable RBSLs

1) RBSLs referenced from Part 201, Generic Residential and Commercial Tier 1 RBSLs, Operational Memorandum No. 18, dated December 21, 2002, as amended, and adopted by reference for Part 213, Operational Memorandum No. 4.

2) Samples analyzed for PNAs, PCBs, and halogenated hydrocarbons. All are non-detect except for those listed on the above table.

SOIL ADSORBED CONCENTRATIONS (ug/kg)
Shell Oil Products US
Former Shell Station
975 Rochester Road
Rochester Hills, MI
SAP# 138063

PARAMETERS	MDEQ Residential "Drinking Water Protection" [1]	MDEQ Residential "Groundwater Surface Water Interface Protection" [1]	MDEQ Commercial III "Soil Volatilization to Indoor Air Inhalation" [1]	MDEQ Commercial III "Direct Contact" [1]	sample ID, depth, date sampled, date analyzed										
					PH-2 2-4' 10/17/1996 10/28/1996	PH-3 2-4' 10/18/1996 10/29/1996	PH-3 10-12' 10/18/1996 10/29/1996	PH-4 2-4' 10/17/1996 10/29/1996	PH-4 10-12' 10/17/1996 10/29/1996	PH-5 2-4' 10/18/1996 10/26/1996	PH-5 10-12' 10/18/1996 10/26/1996	PH-6 2-4' 10/18/1996 10/29/1996	PH-6 10-12' 10/18/1996 10/28/1996	PH-7 2-4' 10/18/1996 10/26/1996	PH-7 10-12' 10/18/1996 10/28/1996
Constituents of Concern															
BTEX & MTBE															
Benzene	100	4,000	8,400	400,000	25,000	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Ethylbenzene	1,500	360	140,000	140,000	86,000	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Methyl-tert-butyl ether	800	15,000	5,900,000	5,900,000	18,000	<5	<5	5	<5	<5	<5	<5	<5	<5	<5
Toluene	16,000	2,800	250,000	250,000	160,000	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Xylenes	5,600	700	150,000	150,000	420,000	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
VOLATILES															
Methylene chloride	100	19,000	240,000	2,300,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	100	900	60,000	88,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	2,100	570	110,000	110,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	1,800	1,100	94,000	94,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INORGANICS															
Total Cadmium	6,000	NC	NLV	2,100,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (VI)	30,000	3,300	NLV	10,000,000	NA	NA	NA	15,200	NA	NA	NA	20,900	NA	44,700	NA
Lead	700,000	NC	NLV	400,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PNAs															
Benzo(a)anthracene	NLL	NLL	NLV	160,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoroanthene	NLL	NLL	ID	160,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NLL	NLL	NLV	16,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	730,000	5,500	1,000,000,000	240,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	390,000	5,300	1,000,000,000	120,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NLL	NLL	NLV	160,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	57,000	ID	ID	37,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	35,000	870	470,000	72,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	480,000	ID	1,000,000,000	150,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NC: No criteria
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NLV: Not Likely to Volitalize under most conditions

NA	Not analyzed
<5	Not detected above laboratory detection limit
6	Above laboratory detection limit
3,500	Above applicable RBSLs

1) RBSLs referenced from Part 201, Generic Residential and Commercial Tier 1 RBSLs, Operational Memorandum No. 18, dated December 21, 2002, as amended, and adopted by reference for Part 213, Operational Memorandum No. 4.

2) Samples analyzed for PNAs, PCBs, and halogenated hydrocarbons. All are non-detect except for those listed on the above table.

SOIL ADSORBED CONCENTRATIONS (ug/kg)
Shell Oil Products US
Former Shell Station
975 Rochester Road
Rochester Hills, MI
SAP# 138063

PARAMETERS	MDEQ Residential "Drinking Water Protection" [1]	MDEQ Residential "Groundwater Surface Water Interface Protection" [1]	MDEQ Commercial III "Soil Volatilization to Indoor Air Inhalation" [1]	MDEQ Commercial III "Direct Contact" [1]	sample ID, depth, date sampled, date analyzed										
					PH-8 2-4' 10/17/1996 10/29/1996	PH-9 4-6' 10/17/1996 10/29/1996	PH-9 10-12' 10/17/1996 10/29/1996	PH-10 2-4' 10/17/1996 10/29/1996	PH-10 10-12' 10/17/1996 10/26/1996	PH-11 2-4' 10/17/1996 10/29/1996	PH-12 2-4' 10/17/1996 10/29/1996	MW-3 2-4' 12/4/1996 12/17/1996	MW-3 8-10' 12/4/1996 12/15/1996	MW-8 2-4' 12/4/1996 12/15/1996	MW-8 10-12' 12/4/1996 12/15/1996
Constituents of Concern															
BTEX & MTBE															
Benzene	100	4,000	8,400	400,000	27	7	8	<5	<5	6	18	71	5	5	<5
Ethylbenzene	1,500	360	140,000	140,000	150	<5	<5	<5	<5	<5	<5	490	<5	<5	<5
Methyl-tert-butyl ether	800	15,000	5,900,000	5,900,000	30	13	10	<5	7	5	21	90	<5	<5	<5
Toluene	16,000	2,800	250,000	250,000	<5	<5	6	<5	<5	7	<5	8	<5	<5	<5
Xylenes	5,600	700	150,000	150,000	134	<5	<5	<5	<5	15	<5	209	<5	<5	<5
VOLATILES															
Methylene chloride	100	19,000	240,000	2,300,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	100	900	60,000	88,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	2,100	570	110,000	110,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	1,800	1,100	94,000	94,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
INORGANICS															
Total Cadmium	6,000	NC	NLV	2,100,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (VI)	30,000	3,300	NLV	10,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	700,000	NC	NLV	400,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PNAs															
Benzo(a)anthracene	NLL	NLL	NLV	160,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoroanthene	NLL	NLL	ID	160,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NLL	NLL	NLV	16,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	730,000	5,500	1,000,000,000	240,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	390,000	5,300	1,000,000,000	120,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NLL	NLL	NLV	160,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	57,000	ID	ID	37,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	35,000	870	470,000	72,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	480,000	ID	1,000,000,000	150,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NC: No criteria
ID: Chemical has either not been evaluated or inadequate data precludes the development of Criteria
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NA	Not analyzed
<5	Not detected above laboratory detection limit
6	Above laboratory detection limit
3,500	Above applicable RBSLs

1) RBSLs referenced from Part 201, Generic Residential and Commercial Tier 1 RBSLs, Operational Memorandum No. 18, dated December 21, 2002, as amended, and adopted by reference for Part 213, Operational Memorandum No. 4.

2) Samples analyzed for PNAs, PCBs, and halogenated hydrocarbons. All are non-detect except for those listed on the above table.

SOIL ADSORBED CONCENTRATIONS (ug/kg)
Shell Oil Products US
Former Shell Station
975 Rochester Road
Rochester Hills, MI
SAP# 138063

PARAMETERS	MDEQ Residential "Drinking Water Protection" [1]	MDEQ Residential "Groundwater Surface Water Interface Protection" [1]	MDEQ Commercial III "Soil Volatilization to Indoor Air Inhalation" [1]	MDEQ Commercial III "Direct Contact" [1]	sample ID, depth, date sampled, date analyzed									
					MW-9 2-4' 11/12/02 11/16/02	MW-9 12-14' 11/12/02 11/16/02	MW-10 4-6' 11/12/02 11/16/02	MW-10 12-14' 11/12/02 11/16/02	MW-11 2-4' 11/12/18 11/16/02	MW-11 12-14' 11/12/02 11/16/02	MW-12 4-6' 11/13/02 11/16/02	MW-12 10-12' 11/13/02 11/16/02	MW-13 4-6' 11/13/02 11/16/02	MW-13 12-14' 11/13/02 11/16/02
Constituents of Concern														
BTEX & MTBE														
Benzene	100	4,000	8,400	400,000	<63	<56	<60	<56	<65	<56	<59	<56	<62	<55
Ethylbenzene	1,500	360	140,000	140,000	<63	<56	<60	<56	<65	<56	<59	<56	<62	<55
Methyl-tert-butyl ether	800	15,000	5,900,000	5,900,000	<63	<56	<60	<56	<65	<56	<59	<56	<62	<55
Toluene	16,000	2,800	250,000	250,000	<63	<56	<60	<56	<65	<56	<59	<56	<62	<55
Xylenes	5,600	700	150,000	150,000	<63	<56	<60	<56	<65	<56	<59	<56	<62	<55
VOLATILES														
Methylene chloride	100	19,000	240,000	2,300,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	100	900	60,000	88,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	2,100	570	110,000	110,000	110	<56	<60	<56	<65	<56	<59	<56	<62	<55
1,3,5-Trimethylbenzene	1,800	1,100	94,000	94,000	<63	<56	<60	<56	<65	<56	<59	<56	<62	<55
INORGANICS														
Total Cadmium	6,000	NC	NLV	2,100,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (VI)	30,000	3,300	NLV	10,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	700,000	NC	NLV	400,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PNAs														
Benzo(a)anthracene	NLL	NLL	NLV	160,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoroanthene	NLL	NLL	ID	160,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NLL	NLL	NLV	16,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	730,000	5,500	1,000,000,000	240,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	390,000	5,300	1,000,000,000	120,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NLL	NLL	NLV	160,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	57,000	ID	ID	37,000,000	66	<56	<60	<56	<65	<56	<59	<56	<62	<55
Naphthalene	35,000	870	470,000	72,000,000	90	<56	<60	<56	<65	<56	<59	<56	<62	<55
Pyrene	480,000	ID	1,000,000,000	150,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NC: No criteria
ID: Chemical has either not been evaluated or inadequate data precludes the development of Criteria
NLV: Not Likely to Volitalize under most conditions

NA	Not analyzed
<5	Not detected above laboratory detection limit
6	Above laboratory detection limit
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1) RBSLs referenced from Part 201, Generic Residential and Commercial Tier 1 RBSLs, Operational Memorandum No. 18, dated December 21, 2002, as amended, and adopted by reference for Part 213, Operational Memorandum No. 4.

2) Samples analyzed for PNAs, PCBs, and halogenated hydrocarbons. All are non-detect except for those listed on the above table.

Historical Dissolved Concentrations (ug/L)
Shell Oil Products US
975 South Rochester Road @ Avon
Rochester, MI
WIC # 221-6185-0100

Monitoring Well	Date	Top of Casing (ft)	Depth to Water (ft)	GW Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	1,3,5-Trimethylbenzene (µg/L)	2-Methylnaphthalene (µg/L)	Acenaphthene (µg/L)	Acenaphthylene (µg/L)	Cadmium (µg/L)	Chromium (µg/L)	Lead, Total (µg/L)
GC					**11,000**	**530,000**	**170,000**	**190,000**	**610,000**	**31,000**	**56,000**	**61,000**	**25,000**	**4,200**	**3,900**	**190,000**	**460,000**	**NA**
VIA - Industrial & Comm. II, III, & IV					**35,000**	**530,000**	**170,000**	**190,000**	**47,000,000**	**31,000**	**56,000**	**61,000**	**NA**	**4,200**	**3,900**	**NA**	**NA**	**NA**
MW-1	12/09/1996	-	-	-	<1	<1	<1	<1	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA
	06/04/1997	-	-	-	<1	<1	<1	<1	1	<5	NA	NA	<5	<5	<5	NA	NA	NA
	08/31/1997	-	-	-	<1	<1	<1	<1	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA
	05/02/2001	-	-	-	<1	<1	<1	-	<1	<1	<1	<1	<1	-	-	-	-	-
	04/03/2002	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-
MW-2	12/09/1996	-	-	-	4,600	12,000	2,900	15,000	230	NA	NA	NA	NA	NA	NA	NA	NA	NA
	06/04/1997	-	-	-	3,400	8,600	2,600	11,000	560	2,100	NA	NA	890	440	<100	NA	NA	NA
	08/31/1997	-	-	-	2,200	7,200	2,100	9,800	230	1,100	NA	NA	420	NA	290	NA	NA	NA
	05/02/2001	-	-	-	200	140	170	540	<5	17	100	33	<5	-	-	-	-	-
	04/03/2002	-	-	-	2,500	2,300	1,500	6,800	110	230	1,400	480	50	-	-	-	-	-
	01/22/2003	-	4.65	-	200	160	320	635	3	24	230	51	3	-	-	-	-	-
	03/11/2004	-	1.93	-	1,500	3,500	1,800	5,200	<10	220	1,300	380	72	-	-	-	-	-
MW-3	12/09/1996	-	-	-	110	45	200	570	8	NA	NA	NA	NA	NA	NA	NA	NA	NA
	06/04/1997	-	-	-	49	15	82	180	16	37	NA	NA	17	14	<5	NA	NA	NA
	08/31/1997	-	-	-	110	8	54	99	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
	05/02/2001	-	-	-	50	2	54	5	1	2	10	<1	<1	-	-	-	-	-
	04/03/2002	-	-	-	48	1	48	6	4	1	22	<1	<1	-	-	-	-	-
	01/22/2003	-	4.59	-	19	<1	4	1	10	<1	4	<1	<1	-	-	-	-	-
	03/11/2004	-	0.94	-	24	<1	34	6	2	2	10	<1	<1	-	-	-	-	-
MW-4	12/09/1996	-	-	-	390	12	18	17	18	NA	NA	NA	NA	NA	NA	NA	NA	NA
	06/04/1997	-	-	-	1,000	79	1,300	3,400	65	16	NA	NA	94	74	<5	NA	NA	NA
	08/31/1997	-	-	-	230	2	79	88	20	NA	NA	NA	NA	NA	NA	NA	NA	NA
	05/02/2001	-	-	-	480	23	750	1,000	<5	180	31	12	<6	-	-	-	-	-
	04/03/2002	-	-	-	190	6	100	58	<1	95	2	2	4	-	-	-	-	-
	01/22/2003	-	5.24	-	330	5	79	18	20	260	<1	1	24	-	-	-	-	-
	03/11/2004	-	2.67	-	83	<1	41	12	1	14	<1	<1	<1	-	-	-	-	-
MW-5	12/09/1996	-	-	-	22	<1	1	2	8	NA	NA	NA	NA	NA	NA	NA	NA	NA
	06/04/1997	-	-	-	25	2	8	<1	4	<5	NA	NA	<5	<5	<5	NA	NA	NA
	08/31/1997	-	-	-	4	<1	<1	<1	8	NA	NA	NA	NA	NA	NA	NA	NA	NA
	05/02/2001	-	-	-	71	2	8	<1	<1	<1	<1	<1	<1	-	-	-	-	-
	04/03/2002	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-
	01/22/2003	-	3.98	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-
	03/11/2004	-	1.20	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-
MW-6	12/09/1996	-	-	-	68	<5	970	1,300	9	NA	NA	NA	NA	NA	NA	NA	NA	NA
	06/04/1997	-	-	-	45	2	350	220	12	NA	NA	NA	NA	NA	NA	NA	NA	NA
	05/02/2001	-	-	-	3	<1	54	1	4	8	<1	<1	2	-	-	-	-	-
	04/03/2002	-	-	-	1	<1	67	2	2	8	1	<1	2	-	-	-	-	-
	03/11/2004	-	2.40	-	2	<1	23	1	<1	41	<1	<1	13	-	-	-	-	-
MW-7	12/09/1996	-	-	-	170	7	260	230	14	NA	NA	NA	NA	NA	NA	NA	NA	NA
	06/04/1997	-	-	-	120	2	230	140	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
	08/31/1997	-	-	-	<1	<1	<1	<1	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
	05/02/2001	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-
	04/03/2002	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-
	03/11/2004	-	2.75	-	<1	<1	<1	<1	2	<1	<1	<1	<1	-	-	-	-	-

Historical Dissolved Concentrations (ug/L)
Shell Oil Products US
975 South Rochester Road @ Avon
Rochester, MI
WIC # 221-6185-0100

Monitoring Well	Date	Top of Casing (ft)	Depth to Water (ft)	GW Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	1,3,5-Trimethylbenzene (µg/L)	2-Methylnaphthalene (µg/L)	Acenaphthene (µg/L)	Acenaphthylene (µg/L)	Cadmium (µg/L)	Chromium (µg/L)	Lead, Total (µg/L)
GC					**11,000**	**530,000**	**170,000**	**190,000**	**610,000**	**31,000**	**56,000**	**61,000**	**25,000**	**4,200**	**3,900**	**190,000**	**460,000**	**NA**
VIA - Industrial & Comm. II, III, & IV					**35,000**	**530,000**	**170,000**	**190,000**	**47,000,000**	**31,000**	**56,000**	**61,000**	**NA**	**4,200**	**3,900**	**NA**	**NA**	**NA**
MW-8	12/09/1996	-	-	-	<1	<1	<1	<1	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA
	06/04/1997	-	-	-	<1	<1	<1	<1	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA
	05/02/2001	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-
	04/03/2002	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-
	01/22/2003	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	03/11/2004	NS	2.25	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-
MW-9	01/22/2003	-	4.23	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-
	03/11/2004	-	1.41	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-
MW-10	01/22/2003	-	5.60	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-
	03/11/2004	-	2.98	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-
MW-11	01/22/2003	-	2.26	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-
	03/11/2004	-	0.00	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-
MW-12	01/22/2003	-	4.82	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-
	03/11/2004	-	2.24	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-
MW-13	01/22/2003	-	3.51	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-
	03/11/2004	-	1.00	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-
PH-1	10/17/1996	-	-	-	<1	<1	<1	<1	<1	<5	NA	NA	<5	NA	<5	<0.2	<1	<1
PH-2	10/17/1996	-	-	-	5,700	17,000	3,200	16,000	130	16,000	NA	NA	27,000	NA	17,000	<0.2	<1	19
PH-3	10/18/1996	-	-	-	<1	<1	<1	<1	<1	<5	NA	NA	<5	NA	<5	<0.2	<1	<1
PH-4	10/17/1996	-	-	-	<1	<1	<1	<1	<1	<5	NA	NA	<5	NA	<5	<0.2	<1	<1
PH-5	10/18/1996	-	-	-	130	2	140	69	26	NA	NA	NA	NA	NA	NA	NA	NA	NA
PH-6	10/18/1996	-	-	-	<1	<1	<1	<1	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA
PH-7	10/18/1996	-	-	-	<1	<1	<1	<1	<1	710	NA	NA	420	NA	200	<0.2	<1	<1
PH-11	10/17/1996	-	-	-	<1	1	<1	<1	10	NA	NA	NA	NA	NA	NA	NA	NA	NA

- In October 1996, PH-1 (W), PH-2, PH-3 (W), PH-4 (W), and PH-7 (W), were analyzed for PNAs and halogenated hydrocarbons. All are non-detect except those listed on the above table.
- On 6/4/97, MW-1 through MW-5 and on 8/31/97, MW-2 were analyzed for PNAs. All are non-detect except those listed on the above table.

<# = Less then the method detection limit of #
µg/L = Micrograms/liter
MTBE = Methyl tertiary butyl ether
NA = Not Available or not analyzed for that specific compound
NS = Not Sampled

AKTPEERLESS
environmental services

SUBSURFACE INVESTIGATION REPORT
975 ROCHESTER ROAD
ROCHESTER HILLS, MICHIGAN

for

SAFEWAY ACQUISITION, LLC
CANTON, MICHIGAN

AKT Peerless Project No. 4500F-2-20
March 31, 2005

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Saginaw, MI Lansing, MI Kalamazoo, MI Farmington, MI Detroit, MI Jackson, MI

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environmental services

SUBSURFACE INVESTIGATION REPORT
975 ROCHESTER ROAD
ROCHESTER HILLS, MICHIGAN
FOR
SAFEWAY ACQUISITION, LLC
CANTON, MICHIGAN

AKT PEERLESS PROJECT NO. 4500F-2-20

1.0 INTRODUCTION

Safeway Acquisition, LLC retained AKT Peerless Environmental Services (AKT Peerless) to conduct a Phase II Subsurface Investigation at the subject property located at 975 Rochester Road in Rochester Hills, Michigan (subject property). The scope of the subsurface investigation was based on AKT Peerless' Phase I Environmental Assessment (ESA), dated February 22, 2005. See Figure 1 for a topographic site location map. See Figure 2 for a site map of the subject property.

This report documents the field activities, sampling protocols, and laboratory results associated with AKT Peerless' March 9, 2005, subsurface investigation. AKT Peerless' scope of work was based on American Society for Testing and Materials (ASTM) "*Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process E-1903-97.*" ASTM E-1903-97 provides a framework for employing good commercial and customary practices in conducting a Phase II ESA of a property with recognized environmental conditions. This report was conducted in accordance with the AKT Peerless' Proposal for a Phase II Site Investigation (Proposal Number PF-5922rv1), dated January 21, 2005.

AKT Peerless' Phase II subsurface investigation was performed for the benefit of Safeway Acquisition, and Comerica Bank, both of which may rely on the contents and conclusions of this report.

2.0 PREVIOUS ENVIRONMENTAL INVESTIGATIONS

2.1 SHELL OIL COMPANY ENVIRONMENTAL INVESTIGATIONS

Safeway Acquisition, LLC provided AKT Peerless with several environmental reports pertaining to the subject property. AKT Peerless reviewed the following environmental reports:

- Groundwater and Environmental Services (GES) Inc.'s Phase I ESA, dated June 28, 2002;
- GES' Groundwater Monitoring Site Status Report, dated January 22, 2003; and
- GES' Final Assessment Report (FAR), dated March 4, 2003.

2.2 SUMMARY OF AKT PEERLESS PHASE I ESA

AKT Peerless completed a Phase I ESA of the subject property on February 22, 2005. AKT Peerless identified the following RECs associated with the subject property:

REC 1 The subject property was identified on the registered UST and "open" LUST site databases. The following USTs are registered to the subject property:

Tank ID	Contents	Capacity (gallons)	Tank Material	Installation Date	Status
1	Gasoline	10,000	Asphalt coated or Bare Steel Reinforced Plastic	April 9, 1977	Removed in 1996
2	Gasoline	10,000	Asphalt coated or Bare Steel Lined Interior	April 9, 1977	Current
3	Gasoline	6,000	Asphalt coated or Bare Steel Lined Interior	April 9, 1977	Current
4	Used Oil	1,000	Asphalt coated or Bare Steel	April 9, 1977	Removed in 1996
5	Gasoline	10,000	Double Walled, Fiberglass Reinforced Plastic	May 1, 1996	Currently in use

According to historical information, confirmed releases were reported on April 8, 1996 and April 26, 1996. The releases were reported based on failed tank tightness tests and laboratory results of soil samples collected at dispenser islands during UST upgrade activities. Natural attenuation has been deemed the remedial technology currently is use. Groundwater contamination has been identified onsite and has migrated offsite to the south towards Avon Road. Quarterly sampling of monitoring wells onsite and offsite is planned until institutional controls have been implemented. Upon completion of the institutional controls, GES plans to prepare and submit a Closure Report for the site.

REC 2 Automotive service activities were conducted at the subject property from at least 1970 until the late 1990s. The subject property used a septic system from at least 1970 until 1991. AKT Peerless observed floor drains in the former maintenance garage area during the site inspection. This system presents an environmental concern to the subject property, due to: (1) the use of hazardous chemicals and/or petroleum products associated with automotive maintenance activities, and (2) the potential introduction of hazardous chemicals and/or petroleum products to the septic system via the floor drains.

REC 3 Natural gas service was not connected to the subject property until 1980. Therefore, the subject property would have used an alternative fuel (i.e., coal, electricity, wood, or heating oil) as a source for the buildings heating system between 1970 and 1980. A heating oil UST was reportedly removed from the northwestern corner of the subject building. Specific information (i.e., removal records, verification sampling results, size, location, contents, and construction) regarding this former UST was not available during this assessment.

REC 4 Two in-ground hydraulic hoists were identified on-site. No documentation or analytical results concerning removal activities of the two hoists were available during the completion of AKT Peerless' Phase I ESA. AKT Peerless observed what appeared to be the location of the controls for the hoists, which are typically removed with the hoist system. Therefore, in AKT Peerless' opinion, these hoists represent an environmental concern to the subject property.

REC 5 An oil-water separator was historically utilized on-site. The oil-water separator was identified in the former maintenance garage during AKT Peerless' site inspection.

3.0 SUBSURFACE INVESTIGATION ACTIVITIES

3.1 SCOPE OF ASSESSMENT

On March 9, 2005, AKT Peerless conducted subsurface investigations at the subject property to address the recognized environmental conditions identified in AKT Peerless' Phase I ESA. AKT Peerless' subsurface investigation was consistent with federal and state programs and ASTM standard methods.

To evaluate the recognized environmental conditions identified at the subject property, AKT Peerless (1) conducted a geophysical survey, (2) drilled 7 soil borings; (3) installed 3 temporary monitoring wells; (4) collected 11 soil samples and 3 groundwater samples; and (5) submitted soil and groundwater samples for laboratory analyses. AKT Peerless performed a qualitative analysis of all soil samples collected during drilling and a quantitative analysis (laboratory analysis) of discrete soil and groundwater samples.

Soil and groundwater samples were submitted for laboratory analyses of select parameters including unleaded gasoline parameters[1] and waste oil parameters.[2] The following table summarizes each recognized environmental condition and the investigation activities and laboratory analyses performed for that recognized environmental condition:

REC #	Environmental Concern	Investigation Activity	Analytical Parameters
REC 1	Current and Historical UST Systems	B-2, B-3, B-4, B-5	Unleaded Gasoline
REC 2	Automotive Maintenance	B-1W, B-6W, B-7W	Waste Oil
REC 3	Former Heating Oil UST	B-7W	Waste Oil
REC 4	Hydraulic Hoists	B-1W, B-6W, B-7W	Waste Oil

[1] Unleaded gasoline parameters consist of benzene, toluene, ethylbenzene, and xylenes (BTEX); trimethylbenzene isomers (TMBs); methyl-tert butyl ether (MTBE); naphthalene; and 2- methylnaphthalene.

[2] Waste oil parameters consist of benzene, toluene, ethylbenzene, and xylenes (BTEX); trimethylbenzene isomers (TMBs); 1,2-dibromoethane (EDB); 1,2-dichloroethane (DCA); polynuclear aromatics (PNAs); lead; cadmium; chromium; volatile halocarbons (VOCs); and polychlorinated biphenyls (PCBs).

REC #	Environmental Concern	Investigation Activity	Analytical Parameters
REC 5	Oil Water Separator	B-1W, B-6W, B-7W	Waste Oil

See Figure 3 for a site map with soil boring locations.

3.2 GEOPHYSICAL SURVEY

AKT Peerless retained Work Smart, Inc. to conduct a geophysical survey of the subject property using a USRADAR SPR ground penetrating radar unit with a 500 MHz antenna. The geophysical survey did not indicate any anomalies consistent with an underground storage tank. A copy of the geophysical survey report is included as Appendix C.

3.3 SOIL EVALUATION

On March 9, 2005, AKT Peerless retained Stock Drilling (Stock) of Ida, Michigan to drill 7 soil borings at the subject property. AKT Peerless and Stock used a hand-auger to drill the initial five feet, and completed the borings using hydraulic drive/direct-push (Geoprobe®) sampling techniques following the drilling procedures outlined in ASTM publication ASTM D-4700. Stock collected continuous soil samples from the soil borings at four-foot intervals to a maximum depth of 14-feet below ground surface (bgs). See Figure 3 for a site map with soil boring locations.

3.3 GROUNDWATER EVALUATION

During drilling activities, AKT Peerless encountered groundwater in all seven soil borings (B-1 through B-7) drilled at the subject property. Groundwater was encountered in two water-bearing formations at approximate depths of 3.5 feet and 5.5 feet below ground surface. AKT Peerless instructed Stock to install temporary wells in three of these soil borings. See Figure 4 for a site map with temporary well locations.

3.4 LABORATORY ANALYSES AND METHODS

AKT Peerless submitted 11 soil samples and 3 groundwater samples for laboratory analyses. The following table summarizes the soil samples submitted for laboratory analyses:

Soil Boring	Sample Depth	Unleaded Gasoline Paranieters	Waste Oil
B-1	2-3		✓
	Water		✓
B-2	3-4	✓	
	10-12	✓	
B-3	3-4	✓	
	10-12	✓	
B-4	3-4	✓	
	10-12	✓	
B-5	3-4	✓	
	10-12	✓	
B-6	3-4		✓
	Water		✓
B-7	3-4		✓
	Water		✓

The laboratory analyzed the samples for (1) unleaded gasoline parameters in accordance with USEPA Method 5035/8260 and (2) waste oil parameters in accordance with USEPA Method 5035/8260/8270/8082/6020.

4.0 LOCAL GEOLOGY AND HYDROGEOLOGY

4.1 LOCAL GEOLOGY

During drilling activities, AKT Peerless encountered:

- ASPHALT and CONCRETE from the ground surface to approximately six inches below ground surface.
- SAND from six inches below the ground surface to approximately 3.5 to 4.5 feet below ground surface.
- CLAY from beneath the sand layer to approximately 5 to 6 feet below ground surface.
- SAND and SILT from beneath the clay layer to approximately 7 to 11 feet below ground surface.
- CLAY from beneath the sand layer to approximately 12 to 14 feet below ground surface (the extent of the soil borings).

The subsurface soil at the property is consistent with the description of lacustrine sand and gravel as described in the *Quaternary Geology of Southern Michigan.* See Appendix A for AKT

Peerless' soil boring logs. The soil contamination appears to be primarily in the shallow sandy soil deposit located within the top five feet below ground surface.

4.2 LOCAL HYDROGEOLOGY

During drilling activities, AKT Peerless encountered groundwater in all seven soil borings drilled at the subject property. Groundwater was encountered in two water-bearing formations at approximate depths of 3.5 feet and 5.5 feet below ground surface. Based on AKT Peerless' field observations and previous reports completed by GES, the saturated thickness of the sandy and silty layers is approximately 0.5 feet to 5 feet.

5.0 ANALYTICAL RESULTS

5.1 RELEVANT CRITERIA

For the purpose of evaluating the subject property in regard to determining facility status, the analytical results are compared to the Part 201 Generic Residential Cleanup Criteria and Screening Levels. A specific evaluation of each exposure pathway was not completed as part of this evaluation, therefore it is assumed that all pathways are applicable. In addition, according to MDEQ *Operational Memorandum #1, December 10, 2004*, the subject property is categorized as Commercial III, therefore, these criteria were used to evaluate the subject property in terms of due care and Part 213 Closure options.

5.2 SOIL ANALYTICAL RESULTS

AKT Peerless submitted 11 soil samples for laboratory analyses of select parameters including unleaded gasoline parameters and waste oil parameters. Based on the laboratory analyses, the following table summarizes the contaminants that exceed the Part 201 Generic Cleanup Criteria and the Part 213 Tier 1 Risk-based Screening Levels (RBSLs).

Soil Contaminants that Exceed Tier 1 Risk-Based Screening Levels

Parameter	Drinking Water	Groundwater Surface Water Interface	Indoor Air Inhalation	Ambient Air Inhalation	Direct Contact	Soil Saturation
Benzene	✓	✓	✓			
Toluene	✓	✓	✓		✓	✓
Ethylbenzene	✓	✓	✓		✓	✓
Xylenes	✓	✓	✓		✓	✓
1,2,4-TMB	✓	✓	✓		✓	✓
1,3,5-TMB	✓	✓	✓		✓	✓
Naphthalene		✓				
n-Propylbenzene	✓					
Chromium (total)		✓				

✓ Indicates the contaminant exceeds this Tier 1 RBSL

See Table 1 for a summary of the soil analytical results. See Figure 3 for a site map with soil boring locations.

5.3 GROUNDWATER ANALYTICAL RESULTS

AKT Peerless submitted 3 groundwater samples for laboratory analyses of select parameters including waste oil parameters. Based on the laboratory analyses, the following table summarizes the contaminants that exceed the Part 201 Generic Cleanup Criteria and the Part 213 Tier 1 Risk-based Screening Levels (RBSLs).

Groundwater Contaminants that Exceed Tier 1 Risk-Based Screening Levels

Parameter	Drinking Water	Groundwater Surface Water	Indoor Air Inhalation	Groundwater Contact
Cadmium	✓			
Chromium	✓	✓		
Lead	✓			

✓ Indicates the contaminant exceeds this Tier 1 RBSL

See Figure 3 for a site map with temporary well locations. See Table 2 for groundwater analytical results.

6.0 EXTENT AND MIGRATION OF CONTAMINATION

6.1 APPROXIMATE EXTENT OF SOIL CONTAMINATION

Based on a review of the reports listed in Section 2.1.1, the extent and potential migration of soil contamination is listed below.

Area of Soil Contamination
The greatest concentration of contamination is located to the south of the former dispenser island. The extent of contamination is not defined to the south towards the Avon Road Right of Way.

Description of Local Geology in Relation to Soil Contamination
Based on a review of the listed reports, the subsurface soils appear to consist of the following:

- ASPHALT and CONCRETE from the ground surface to approximately six inches below ground surface.
- SAND from six inches below the ground surface to approximately 3.5 to 4.5 feet below ground surface.
- CLAY from beneath the sand layer to approximately 5 to 6 feet below ground surface.
- SAND and SILT from beneath the clay layer to approximately 7 to 11 feet below ground surface.
- CLAY from beneath the sand layer to approximately 12 to 14 feet below ground surface (the extent of the soil borings).

The soil contamination appears to be primarily in the sand formation from just below the ground surface to an approximate depth of 4.5 feet.

Potential for Off-site Migration
Soil contamination appears to have migrated from the former gasoline dispensers to the south towards the Avon Road Right of Way. The extent of contamination is not defined. Therefore, the potential for off-site migration can not be ruled out based on existing data. Refer to Figure 4 for a map depicting the approximate extent of the soil contamination.

6.2 APPROXIMATE EXTENT OF GROUNDWATER CONTAMINATION

Based on a review of the reports listed in Section 2.1.1, the extent and potential migration of groundwater contamination is listed below.

Area of Groundwater Contamination
The greatest concentration of contamination is located near the former gasoline dispensers. The extent of groundwater contamination has not been defined to the north, east, and southwest. Groundwater flow direction is to the southeast. Based on the analytical results of the groundwater samples collected from monitoring wells MW-11, MW-12 and MW-13 contaminated groundwater has migrated into the Avon Road right-of-way. However, it appears that this contamination has not reached the southern or eastern adjoining properties.

Potential for Free Product
Free product was not identified during any of the investigations.

Description of Local Geology in Relation to Groundwater Contamination
Based on a review of the listed reports, the subsurface soils appear to consist of the following:

- ASPHALT and CONCRETE from the ground surface to approximately six inches below ground surface.
- SAND from six inches below the ground surface to approximately 3.5 to 4.5 feet below ground surface.
- CLAY from beneath the sand layer to approximately 5 to 6 feet below ground surface.
- SAND and SILT from beneath the clay layer to approximately 7 to 11 feet below ground surface.
- CLAY from beneath the sand layer to approximately 12 to 14 feet below ground surface (the extent of the soil borings).

Groundwater beneath the subject property appears to be perched and not part of a usable aquifer.

Potential for Off-site Migration
Based on the analytical results, contaminated groundwater has migrated into the Avon Road right-of-way. However, it appears that this contamination has not reached the southern or eastern adjoining properties. Refer to Figure 5 for a map depicting the approximate extent of groundwater contamination.

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 CONCLUSIONS

AKT Peerless completed a Phase I ESA of the subject property on February 22, 2005. This Phase I ESA identified the following RECs associated with the subject property:

- REC 1 Open LUST site.
- REC 2 Historical automotive service.
- REC 3 Possible presence of a heating oil UST behind the building.
- REC 4 Two in-ground hydraulic hoists.
- REC 5 Former presence of an oil-water separator.

AKT Peerless conducted a subsurface investigation to evaluate these RECs. AKT Peerless investigation included (1) the installation of seven soil borings, (2) the collection of soil and groundwater samples from the soil borings and (3) a geophysical survey northwest of the subject building. AKT Peerless submitted the samples for select parameters including VOCs, PNAs, PCBs, cadmium, chromium, lead, and MDEQ Unleaded Gasoline Parameters. The following sections present a summary of the investigation performed to evaluate each REC.

AKT Peerless retained Work Smart, Inc. to conduct a geophysical survey of the subject property using a USRADAR SPR ground penetrating radar unit with a 500 MHz antenna. The geophysical survey did not indicate any anomalies consistent with an underground storage tank.

REC 1

Soil borings B-2, B-3, B-4 and B-5 were installed to further evaluate REC 1. Six soil samples were collected from the soil borings for laboratory analyses for MDEQ Unleaded Gasoline Parameters. The laboratory analytical results indicated the presence of BTEX; 1,2,4-TMB; 1,3,5-TMB, naphthalene; and N-Propylbenzene in soil sample B-4 (2-3') above MDEQ Generic Commercial III Drinking Water Protection, Direct Contact, and GSI Criterion. Soil sample B-4 (10-12') vertically delineated the extent of this soil contamination. Therefore, the thickness of contamination appears to be approximately 2 meters. The analytical results of B-4 (2-3') did not exceed MDEQ Commercial III Ambient Air two-meter thickness criteria. The analytical results of the soil samples collected from B-2, B-3 and B-5 did not indicate the presence of target compounds above MDEQ Generic Residential Cleanup Criteria.

To address the UST release, EnecoTech conducted an investigation in 1996 that included the installation of soil borings and the collection of soil samples for laboratory analyses for BTEX and MTBE. The analytical results of these soil samples indicated the presence of MTBE above MDEQ Generic Residential and Commercial III Cleanup Criteria in soil boring PH-8/MW-3. The analytical results of the other soil samples did not indicate target compounds above MDEQ Generic Residential Cleanup Criteria.

To further address the UST release, drilled four soil borings (MW-9 through MW-13) and collected soil samples from these soil borings. The laboratory analytical results of these soil samples did not indicate the presence of target compounds above MDEQ Generic Residential Cleanup Criteria.

GES conducted groundwater sampling of existing monitoring wells in January of 2003. GES submitted the groundwater samples for laboratory analyses for MDEQ Unleaded Gasoline Parameters. The laboratory analytical results of GES's groundwater samples indicated the presence of benzene, ethylbenzene, 1,2,4-TMB, and xylenes above MDEQ Generic Residential, Commercial III and GSI Cleanup Criteria in monitoring wells MW-2, MW-3, MW-4 and MW-6.

REC 2, REC 3, REC 4 and REC 5

Soil borings B-1, B-6 and B-7, were installed to address REC 2, REC 3, REC 3, and REC 4. The geophysical survey was conducted to address REC 3. Three soil samples were collected from the soil borings and submitted for laboratory analyses for VOCs, PNAs, PCBs, cadmium, chromium and lead. The laboratory analytical results of the soil samples indicated the presence of total chromium in soil samples collected from soil borings B-1, B-6, and B-7 above MDEQ Generic Residential Cleanup Criteria; however, these results are consistent with MDEQ Statewide Default Background Concentrations. Further, no other target compound was detected in these soil samples. Therefore, these chromium concentrations appear to be background concentrations and not associated with a release.

AKT Peerless submitted groundwater samples from soil borings B-1, B-6 and B-7 for laboratory analyses for VOCs, PNA, PCBs, cadmium, chromium and lead. The laboratory analytical results indicated the presence of cadmium, chromium and lead above MDEQ Residential and Commercial III Cleanup Criteria in groundwater sample B-7. Further, lead was detected in groundwater samples B-1 and B-6 above MDEQ Generic Residential and Commercial III Cleanup Criteria. The geophysical survey did not identify the presence of an anomaly consistent with a UST.

7.2 RECOMMENDATIONS

The investigations identified the presence of a consistent clay confining layer across the subject property. Depth to clay ranged from 6-11 feet bgs and averaged approximately 6 feet in thickness. Further, regional water well records attached to previous reports identified a continuous confining clay layer across the region from 9-70 feet bgs. Therefore, groundwater beneath the subject property appears to be perched and not part of a usable aquifer.

The subject property is an open LUST site. Free product was not identified during any of the investigations. However, the extent of soil contamination has not been defined to the south (in the utility corridor). Further, the extent of groundwater contamination has not been defined to the north and east. Groundwater flow direction is to the southeast. Based on the analytical results of the groundwater samples collected from monitoring wells MW-11, MW-12 and MW-13, groundwater contamination does not appear to migrating to the southern or eastern adjoining properties.

To achieve a Commercial III closure, additional work is necessary as follows:

- Delineate the extent of soil and groundwater contamination.
- Conduct quarterly groundwater monitoring for two years (eight quarters).
- Prepare a Commercial III LUST Closure Report.

Based on the current soil and groundwater data, AKT Peerless believes that two years of quarterly groundwater monitoring will be sufficient to achieve closure. Based on the results of the proposed investigation, it will likely be necessary to restrict the road right-of-way. Because

the extent of contamination is not fully defined, AKT Peerless is proposing a 'Remediation Cost Estimate". Details regarding this cost estimate are presented in the following section.

7.3 REMEDIATION COST ESTIMATE

Based the results of the investigations, AKT Peerless proposes natural attenuation to achieve a Commercial III Closure of the subject property. AKT Peerless proposes the following scope of work:

- Drill one soil boring/permanent monitoring well in utility corridor along Avon Road western end of the subject property.
- Drill one soil boring/permanent monitoring well in utility corridor along Avon Road on the eastern end of the subject property.
- Drill one soil boring on the southern adjoining property.
- Collect soil samples from the soil borings for laboratory analyses for MDEQ Unleaded Gasoline Parameters.
- Install one permanent monitoring well on the northern adjoining property.
- Install one permanent monitoring well on the eastern adjoining property.
- Collect quarterly groundwater samples from all the monitoring wells for MDEQ Unleaded Gasoline Parameters for two years (eight quarters).
- Prepare a Commercial III UST Closure Report (including any additional notification that may be necessary).

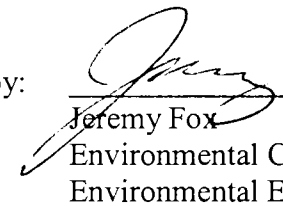
AKT Peerless estimates that the remediation cost estimate for this site ranges from $72,000 to $84,000. These costs assume (1) the proposed scope of work is sufficient to delineate the extent of contamination to MDEQ Generic Residential Cleanup Criteria, (2) 12 quarters of groundwater monitoring is sufficient to demonstrate compliance with MDEQ Generic Residential Cleanup Criteria on adjoining properties (not including utility corridors. These will be restricted to Commercial III), (3) 12 quarters of groundwater monitoring is sufficient to demonstrate compliance with MDEQ Commercial III Cleanup Criteria on the subject property and (4) the subject property can be restricted to the Commercial III land use scenario.

8.0 LIMITATIONS

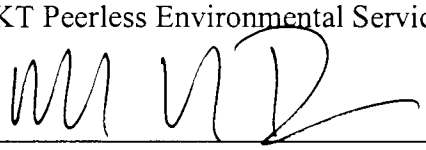
The information and opinions obtained in this report are for the exclusive use of Safeway Acquisition, LLC, and Comerica Bank. No distribution to or reliance by other parties may occur without the express written permission of AKT Peerless. AKT Peerless will not distribute this report without your written consent or as required by law or by a Court order. The information and opinions contained in the report are given in light of that assignment. This report must be reviewed and relied upon only in conjunction with the terms and conditions expressly agreed upon by the parties and as limited therein. Any third parties who have been extended the right to rely on the contents of this report by AKT Peerless (which is expressly required prior to any third-party release), expressly agrees to be bound by the original terms and conditions entered into by AKT Peerless and Safeway Acquisition.

Subject to the above and the terms and conditions, AKT Peerless accepts responsibility for the competent performance of its duties in executing the assignment and preparing reports in accordance with the normal standards of the profession, but disclaims any responsibility for consequential damages. Although AKT Peerless believes that results contained herein are reliable, AKT Peerless cannot warrant or guarantee that the information provided is exhaustive or that the information provided by Safeway Acquisition, or third parties is complete or accurate.

AKT Peerless warrants that the services, findings, and/or recommendations provided to Comerica Incorporated, its affiliates and subsidiaries, and their respective successors and assigns Comerica, have been prepared, performed and rendered in accordance with procedures, practices, and standards generally accepted and customary in the consultant's profession for use in similar assignments. AKT Peerless shall indemnify, save and hold harmless Comerica from and against any and all losses, costs, expenses and liabilities, including without limit reasonable attorneys fees, which are attributable to the breach of the above warranty, up to an aggregate amount of $1,000,000 (One Million Dollars), notwithstanding any limitation (expressed or implied) contained in any other agreement or document relating to the services, findings and/or recommendations provided by AKT Peerless.

Report submitted by: 

Jeremy Fox
Environmental Consultant
Environmental Engineering Services
AKT Peerless Environmental Services

Report reviewed by: 

Mark E. Van Doren
Senior Project Manager
Environmental Engineering Services
AKT Peerless Environmental Services

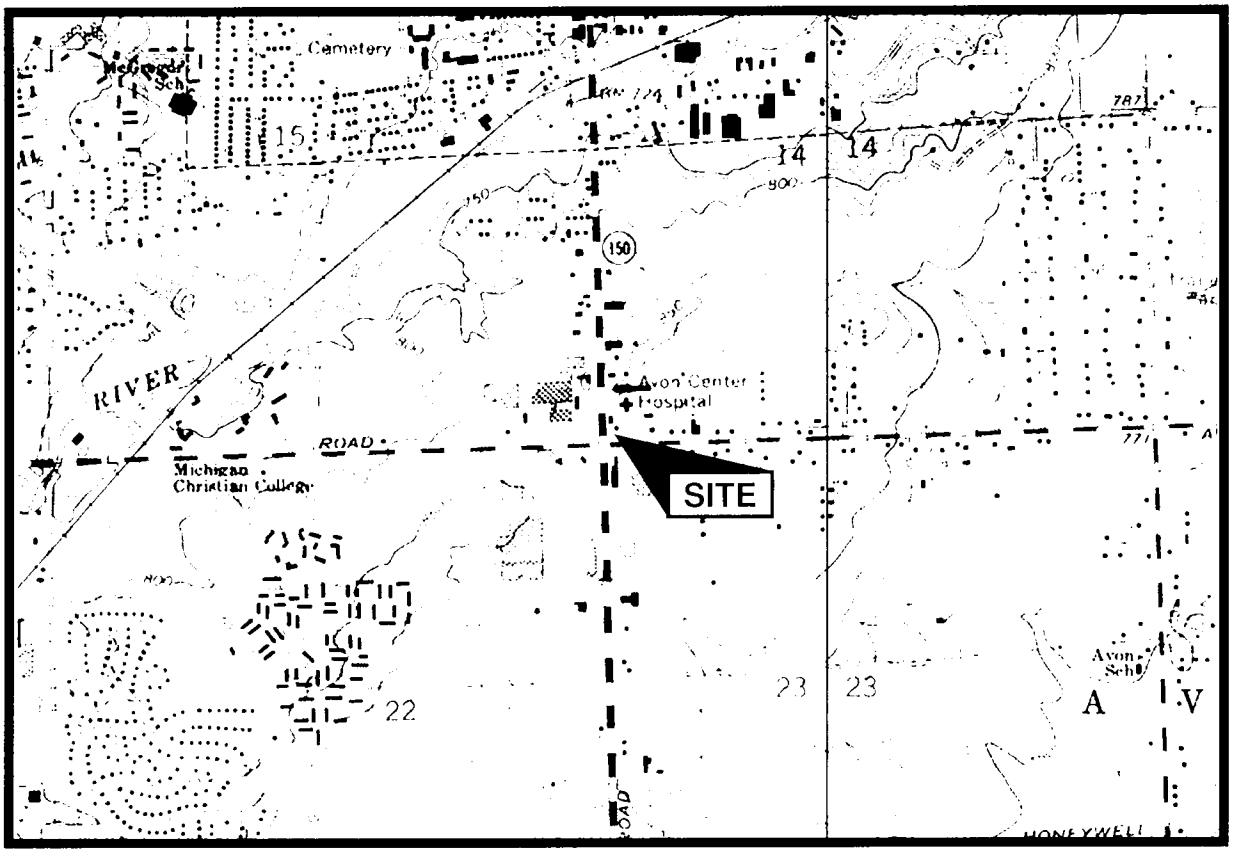
March 31, 2005

FIGURES

ROCHESTER QUADRANGLE

MICHIGAN – OAKLAND COUNTY

7.5 MINUTE SERIES (TOPOGRAPHIC)



T.3 N. – R.11 E.

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL

MICHIGAN
QUADRANGLE LOCATION

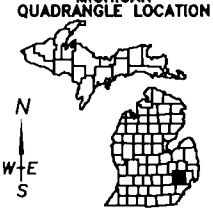


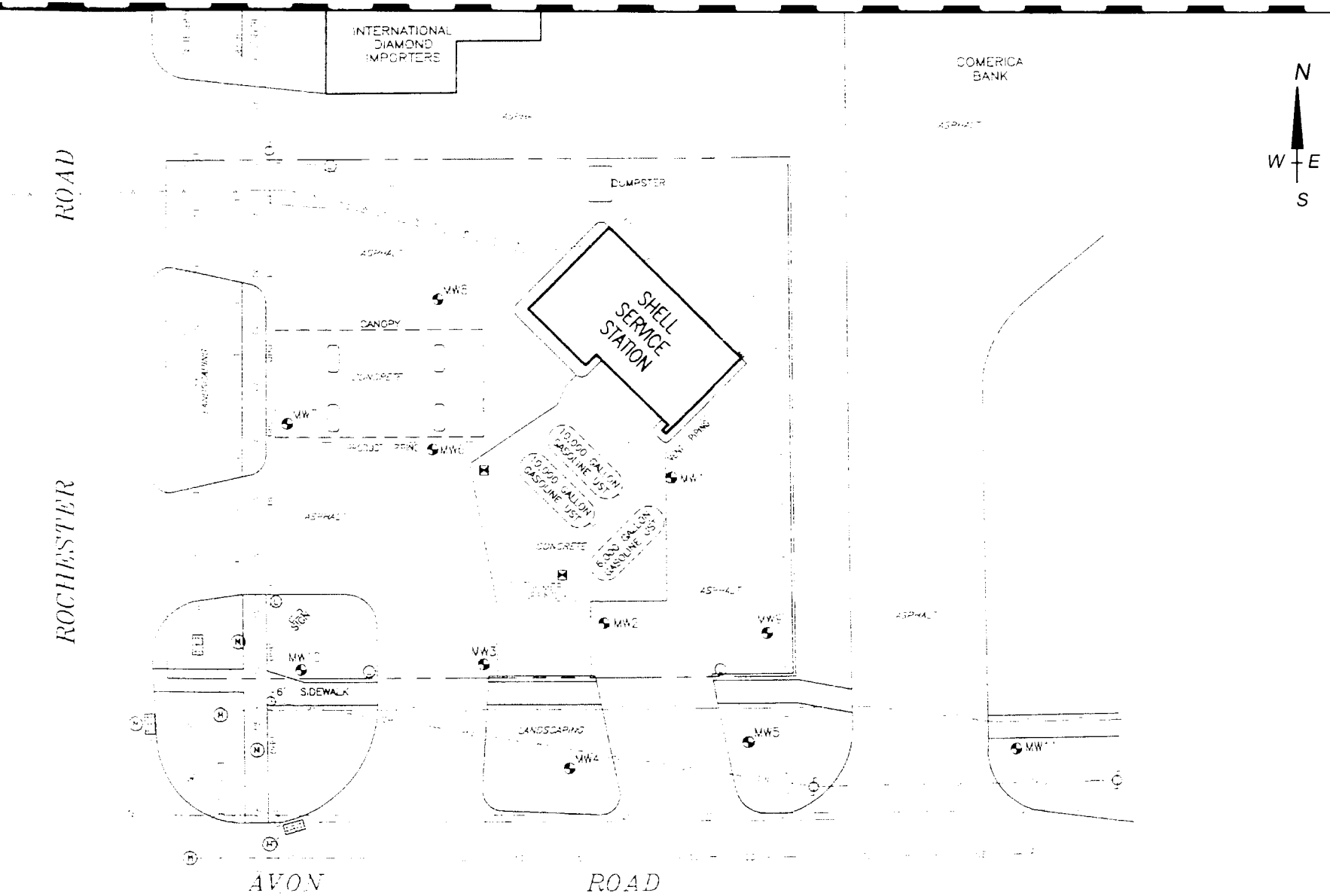
IMAGE TAKEN FROM 1968 U.S.G.S. TOPOGRAPHIC MAP
PHOTOREVISED 1981

AKTPEERLESS
environmental services
214 Jones Avenue, P.O. Box 1873, Saginaw, MI 48605
Phone: (989)754-9696 Fax: (989)754-3804

TOPOGRAPHIC LOCATION MAP
975 SOUTH ROCHESTER ROAD
ROCHESTER HILLS, MICHIGAN
PROJECT NUMBER : 4500F-2-20
DRAWING NUMBER : TOPO

DRAWN BY: *OGO*
DATE: *02-10-05*

FIGURE 1



*Site map originated by GES

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environmental services

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phone: (248) 615-1333 fax: (248) 615-1334

Site Map with Utility Locations

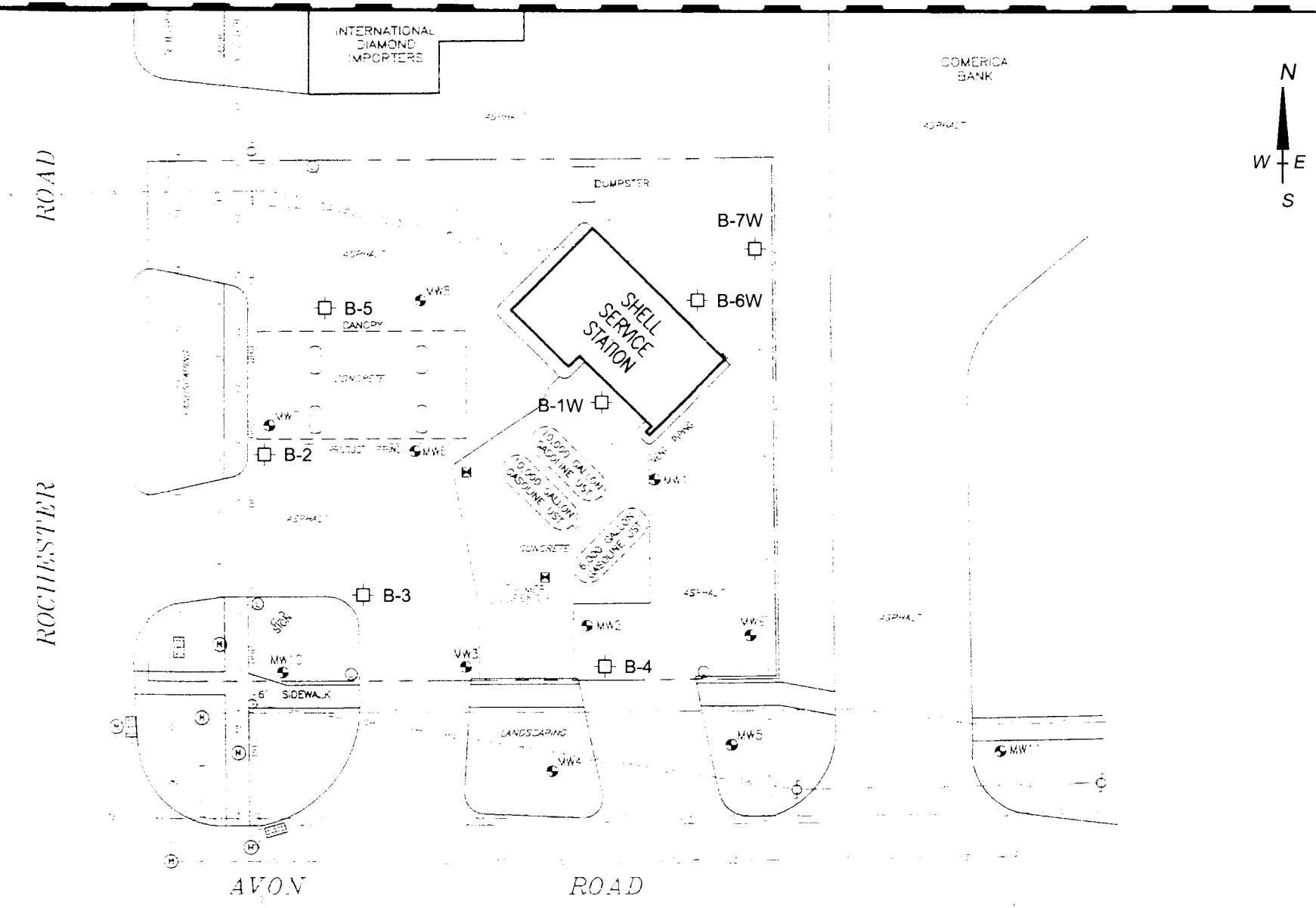
Rochester and Avon Shell Station

975 South Rochester Road
Rochester Hills, MICHIGAN
PROJECT NUMBER: 4500F-2-20

DRAWN BY: ***RAH***

DATE: ***3/21/05***

FIGURE 2



*Site map originated by GES

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***Soil Boring Location Map**

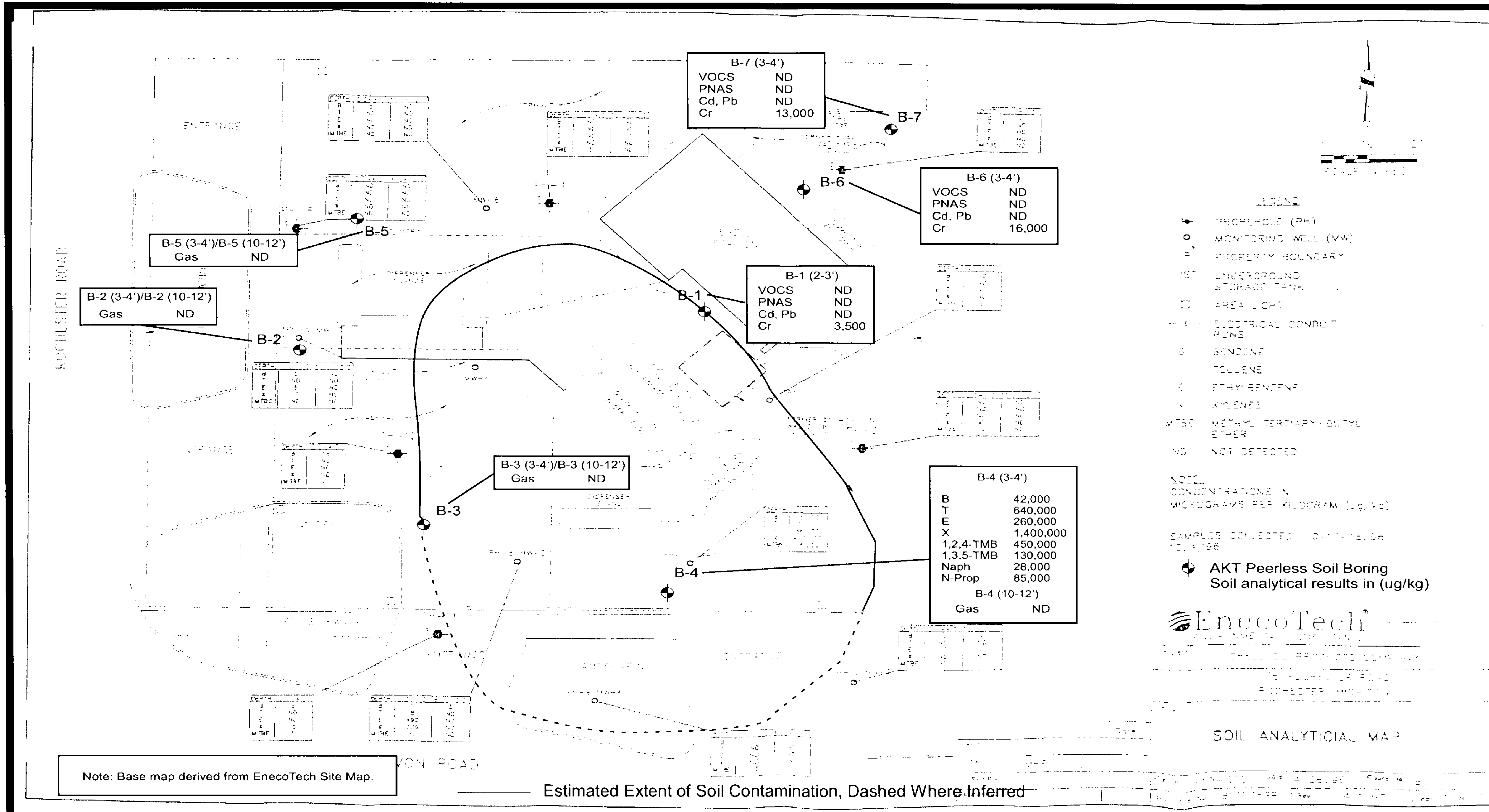
Rochester and Avon Shell Station

975 South Rochester Road
Rochester Hills, MICHIGAN
PROJECT NUMBER: 4500F-2-20

DRAWN BY: *RAH*

DATE: *3/21/05*

FIGURE 3



B-7 (3-4')
VOCS ND
PNAS ND
Cd, Pb ND
Cr 13,000
B-7
B-6 (3-4')
VOCS ND
PNAS ND
Cd, Pb ND
Cr 16,000
B-6
B-5 (3-4')/B-5 (10-12')
Gas ND
B-5
B-2 (3-4')/B-2 (10-12')
Gas ND
B-2
B-1 (2-3')
VOCS ND
PNAS ND
Cd, Pb ND
Cr 3,500
B-1
B-3 (3-4')/B-3 (10-12')
Gas ND
B-3
B-4 (3-4')
B 42,000
T 640,000
E 260,000
X 1,400,000
1,2,4-TMB 450,000
1,3,5-TMB 130,000
Naph 28,000
N-Prop 85,000
B-4 (10-12')
Gas ND
B-4
AKT Peerless Soil Boring
Soil analytical results in (ug/kg)
EnecoTech
SOIL ANALYTICIAL MAP
Note: Base map derived from EnecoTech Site Map.
Estimated Extent of Soil Contamination, Dashed Where Inferred

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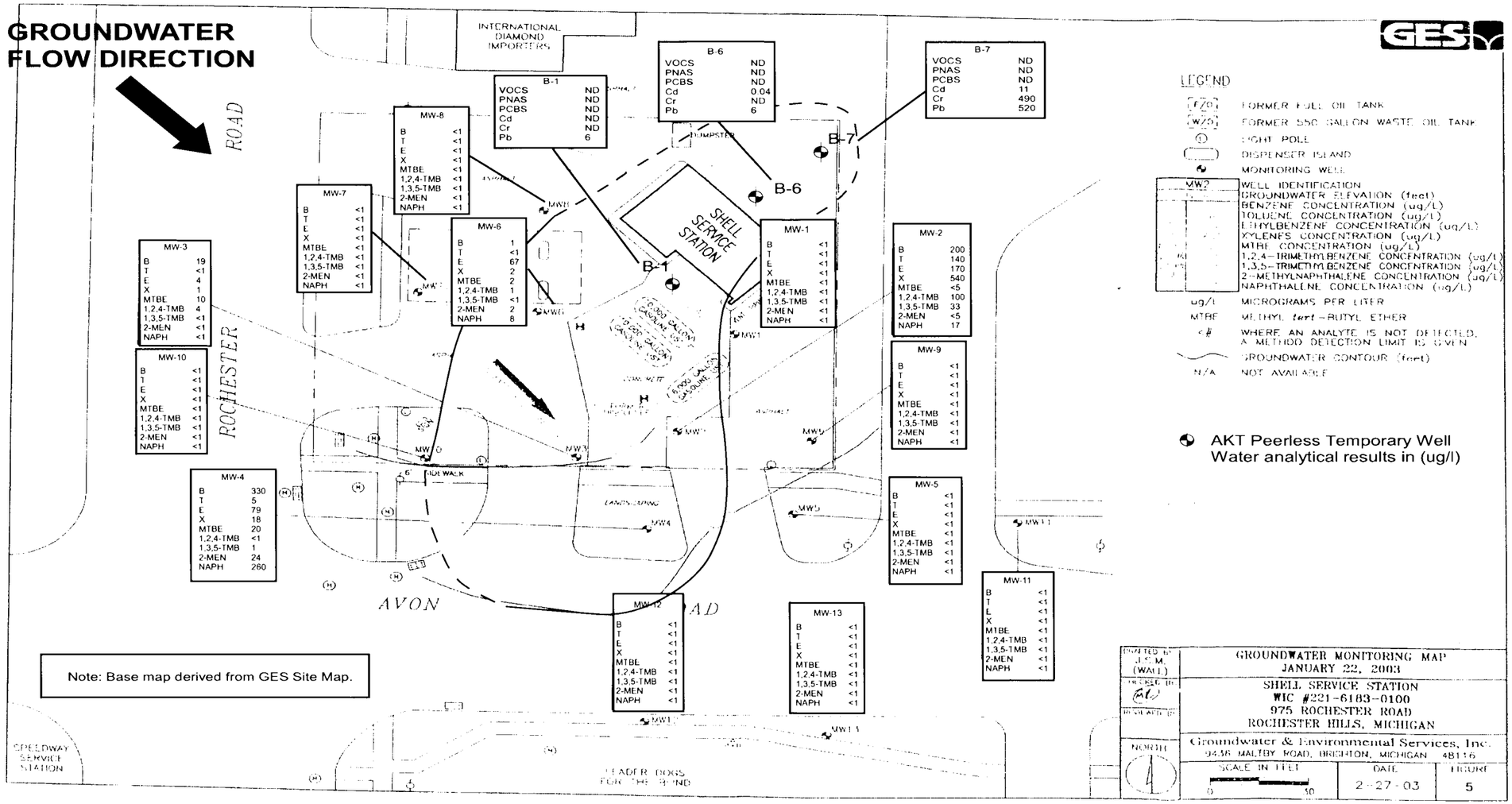
APPROXIMATE EXTENT OF SOIL CONTAMINATION
Rochester and Avon Shell Station
975 South Rochester Road

Rochester Hills, Michigan
PROJECT NUMBER: 4500F-2-20

DRAWN BY: ***MEV***
DATE: ***3/23/2005***

FIGURE 4



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22725 Orchard Lake Road, Farmington, MI 48336
phone: (248) 615-1333 fax: (248) 615-1334

APPROXIMATE EXTENT OF GROUNDWATER CONTAMINATION
Rochester and Avon Shell Station
975 South Rochester Road

Rochester Hills, Michigan
PROJECT NUMBER: 4500F-2-20

DRAWN BY: *MEV*
DATE: *3/23/2005*

FIGURE 5

TABLES

Table 1
Summary of Soil Analytical Results
Safeway Acquisition, LLC
975 Rochester Rd
Rochester Hills, MI
AKT Peerless Project No
4500F-2-20

Target Parameter and MDEQ Criteria	CAS #	Residential and Commercial I Drinking Water Protection Criteria	Residential and Commercial I Groundwater Surface Water Interface Protection Criteria	Residential and Commercial I Soil Volatilization to Indoor Air Inhalation Criteria	Residential and Commercial I Ambient Air Soil Inhalation Criteria (VSIC)	Residential and Commercial I Soil Direct Contact Criteria	Residential and Commercial I Soil Saturation Concentration Screening Levels	Commercial III Drinking Water Protection Criteria	Commercial III Groundwater Surface Water Interface Protection Criteria	Commercial III Soil Volatilization to Indoor Air Inhalation Criteria	Commercial III Ambient Air Volatile Soil Inhalation Criteria (VSIC)	Commercial III Soil Direct Contact Criteria	Commercial III Soil Saturation Concentration Screening Levels
Volatile Organic Compounds (ug/Kg)	**CAS #**												
Benzene (I)	71432	**100**	**4,000 (X)**	**1,600**	**13,000**	180,000	400,000	**100**	**4,000 (X)**	**8,400**	45,000	400,000 (C)	400,000
Toluene (I)	108883	**16,000**	**2,800**	**250,000(C)**	2,800,000	**250,000(C)**	**250,000**	**16,000**	**2,800**	**250,000(C)**	3,300,000	**250,000(C)**	**250,000**
Ethylbenzene (I)	100414	**1,500**	**360**	**87,000**	720,000	**140,000 (C)**	**140,000**	**15,000**	**360**	**140,000 (C)**	2,400,000	**140,000 (C)**	**140,000**
Xylenes (I)	1330207	**5,600**	**700**	**150,000(C)**	46,000,000	**150,000(C)**	**150,000**	**5,600**	**700**	**150,000(C)**	54,000,000	**150,000(C)**	**150,000**
Methyl tert-butyl ether (MTBE)	1634044	800	15,000 (X)	5,900,000 (C)	25,000,000	1,500,000	5,900,000	800	15,000 (X)	5,900,000 (C)	30,000,000	5,900,000 (C)	5,900,000
1,2,3-Trimethylbenzene	526738	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene (I)	95636	**2,100**	**570**	**110,000(C)**	21,000,000	**110,000(C)**	**110,000**	**2,100**	**570**	**110,000(C)**	25,000,000	**110,000(C)**	**110,000**
1,3,5-Trimethylbenzene (I)	108678	**1,800**	**1,100**	**94,000(C)**	16,000,000	**94,000(C)**	**94,000**	**1,800**	**1,100**	**94,000(C)**	19,000,000	**94,000(C)**	**94,000**
1,2-Dichloroethane (I)	107062	100	7,200 (X)	2,100	6,200	91,000	1,200,000	100	7,200 (X)	11,000	21,000	840,000	1,200,000
Ethylene dibromide	106934	20 (M)	20 (M)	670	1,700	20 (M)	890,000	20 (M)	20 (M)	3,600	5,800	600	890,000
2-Methylnaphthalene	91576	57000	ID	ID	ID	8100000	NA	170,000	ID	ID	ID	37,000,000	NA
Naphthalene	91203	35,000	**870**	250,000	300,000	16,000,000	NA	100,000	**870**	470,000	350,000	72,000,000	NA
Isopropyl benzene	98828	91,000	ID	390,000 (C)	1,700,000	390,000 (C)	390,000	260,000	ID	390,000 (C)	2,000,000	390,000 (C)	390,000
N-Propylbenzene (I)	103651	**1,600**	NA	ID	ID	2,500,000	10,000,000	**4,600**	NA	ID	ID	10,000,000 (C)	10,000,000
Vinyl chloride	75014	40	300	270	4,200	3,800	490,000	40	300	2,000	29,000	47,000	490,000
Remaining VOCs	Various	-	-	-	-	-	-	-	-	-	-	-	-
Polynuclear Aromatic Hydrocarbons (ug/Kg)													
Acenaphthene	83329	300000	4400	19000000	81000000	41000000	NA	880,000	4,400	350,000,000	97,000,000	180,000,000	NA
Acenaphthylene	208968	5900	ID	1600000	2200000	1600000	NA	17,000	ID	3,000,000	2,700,000	7,200,000	NA
Anthracene	120127	41000	ID	1,000,000,000 (D)	1400000000	230000000	NA	41,000	ID	1,000,000,000 (D)	1,600,000,000	1,000,000,000	NA
Benzo(a)anthracene (Q)	56553	NLL	NLL	NLV	NLV	20000	NA	NLL	NLL	NLV	NLV	160,000	NA
Benzo(a)pyrene (Q)	50328	NLL	NLL	NLV	NLV	2000	NA	NLL	NLL	NLV	NLV	16,000	NA
Benzo(b)fluoranthene (Q)	205992	NLL	NLL	ID	ID	20000	NA	NLL	NLL	ID	ID	160,000	NA
Benzo(g,h,i)perylene	191242	NLL	NLL	NLV	NLV	2500000	NA	NLL	NLL	NLV	NLV	14,000,000	NA
Benzo(k)fluoranthene (Q)	207089	NLL	NLL	NLV	NLV	200000	NA	NLL	NLL	NLV	NLV	1,600,000	NA
Chrysene (Q)	218019	NLL	NLL	ID	ID	2000000	NA	NLL	NLL	ID	ID	16,000,000	NA
Dibenzo(a,h)anthracene (Q)	53703	NLL	NLL	NLV	NLV	2000	NA	NLL	NLL	NLV	NLV	16,000	NA
Fluoranthene	206440	730000	5500	1,000,000,000 (D)	740000000	46000000	NA	730,000	5,500	1,000,000,000 (D)	890,000,000	240,000,000	NA
Fluorene	86737	390000	5300	580000000	130000000	27000000	NA	890,000	5,300	1,000,000,000 (D)	150,000,000	120,000,000	NA
Indeno(1,2,3-cd)pyrene (Q)	193395	NLL	NLL	NLV	NLV	20000	NA	NLL	NLL	NLV	NLV	180,000	NA
Phenanthrene	85018	56000	5300	2800000	160000	1600000	NA	160,000	5,300	5,100,000	190,000	7,200,000	NA
Pyrene	129000	480000	ID	1,000,000,000 (D)	650000000	29000000	NA	480,000	ID	1,000,000,000 (D)	780,000,000	150,000,000	NA
Remaining PNAs		-	-	-	-	-	-	-	-	-	-	-	-
Metals (ug/Kg)													
Cadmium (B)	7440439	6000	(G,X)	NLV	NLV	550000	NA	6,000	(G,X)	NLV	NLV	2,100,000	NA
Chromium (VI)	18540299	30000	3300	NLV	NLV	2500000	NA	30,000	**3,300**	NLV	NLV	10,000,000	NA
Lead (B)	7439921	700000	(G,M,X)	NLV	NLV	400000	NA	700,000	(G,M,X)	NLV	NLV	400,000	NA
PCBs (ug/Kg)													
Polychlorinated biphenyls (PCBs) (J,T)	1336363	NLL	NLL	3000000	240000	4,000 (T)	NA	NLL	NLL	16,000,000	810,000	(T)	NA
Glycols (ug/Kg)													
Ethylene glycol	107211	300000	NA	NLV	NLV	110,000,000 (C)	110000000	840,000	NA	NLV	NLV	110,000,000 (C)	110,000,000

Target Parameter	Sample Identification and Date: B-1 (2-3) 3/9/2005	B-2 (3-4) 3/9/2005	B-2 (10-12) 3/9/2005	B-3 (3-4) 3/9/2005	B-3 (10-12) 3/9/2005	B-4 (3-4) 3/9/2005	B-4 (10-12) 3/9/2005	B-5 (3-4) 3/9/2005	B-5 (10-12) 3/9/2005	B-6 (3-4) 3/9/2005	B-7 (3-4) 3/9/2005
Volatile Organic Compounds (ug/Kg)											
Benzene (I)	ND	ND	ND	ND	ND	**42,000**	ND	ND	ND	ND	ND
Toluene (I)	ND	ND	ND	ND	ND	**640,000**	130	ND	ND	ND	ND
Ethylbenzene (I)	ND	ND	ND	ND	ND	**260,000**	88	ND	ND	ND	ND
Xylenes (I)	ND	ND	ND	ND	ND	**1,400,000**	440	ND	ND	ND	ND
Methyl tert-butyl ether (MTBE)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trimethylbenzene	ND	ND	ND	ND	ND	120,000	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene (I)	ND	ND	ND	ND	ND	**450,000**	200	ND	ND	ND	ND
1,3,5-Trimethylbenzene (I)	ND	ND	ND	ND	ND	**130,000**	ND	ND	ND	ND	ND
1,2-Dichloroethane (I)	ND	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
Ethylene dibromide	ND	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND	ND	**28,000**	ND	ND	ND	ND	ND
Isopropyl benzene	ND	ND	ND	ND	ND	23,000	ND	ND	ND	ND	ND
N-Propylbenzene (I)	ND	ND	ND	ND	ND	**85,000**	ND	ND	ND	ND	ND
Vinyl chloride	ND	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
Remaining VOCs	ND	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
Polynuclear Aromatic Hydrocarbons (ug/Kg)											
Acenaphthene	ND	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
Acenaphthylene	ND	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
Anthracene	ND	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
Benzo(a)anthracene (Q)	ND	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
Benzo(a)pyrene (Q)	ND	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
Benzo(b)fluoranthene (Q)	ND	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
Benzo(g,h,i)perylene	ND	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
Benzo(k)fluoranthene (Q)	ND	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
Chrysene (Q)	ND	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
Dibenzo(a,h)anthracene (Q)	ND	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
Fluoranthene	ND	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
Fluorene	ND	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
Indeno(1,2,3-cd)pyrene (Q)	ND	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
Phenanthrene	ND	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
Pyrene	ND	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
Remaining PNAs	ND	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
Metals (ug/Kg)											
Cadmium (B)	ND	NS	NS	NS	NS	NS	NS	NS	NS	170	120
Chromium (VI)	**3,500**	NS	NS	NS	NS	NS	NS	NS	NS	**16,000**	**13,000**
Lead (B)	2,800	NS	NS	NS	NS	NS	NS	NS	NS	9,000	8,900
PCBs (ug/Kg)											
Polychlorinated biphenyls (PCBs) (J,T)	ND	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND
Glycols (ug/Kg)											
Ethylene glycol	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Note
(ug/L) Micrograms per kilogram
C - Value presented is a screening level based on the chemical specific generic soil saturation concentration (Csat) since the calculated risk based criterion is greater than Csat
G - Groundwater surface water interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water
M - Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit
T - Refer to the federal toxic substances control act (TSCA), 40 C.F.R. Section 761, Subpart D and 40 C.F.R. Section 761, Subpart G, to determine the applicability of TSCA cleanup standards
X - The groundwater surface water interface (GSI) criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source
DD - Hazardous substance causes developmental effects
ID - Insufficient data to develop criterion
NA - Criterion or value is not available or, in the case of background and chemical abstract service numbers, not applicable
NLL - Hazardous substance is not likely to leach under most soil conditions
NLV - Hazardous substance is not likely to volatilize under most conditions
NS - Not submitted for Analysis

Table 2
Summary of Groundwater Analytical Results
Safeway Acquisition, LLC
975 Rochester Rd
Rochester Hills, MI
AKT Peerless Project No
4500F-2-20

Target Parameter and MDEQ Criteria		Residential & Commercial I Drinking Water Criteria & RBSLs	Industrial & Commercial II, III & IV Drinking Water Criteria & RBSLs	Groundwater Surface Water Interface Criteria & RBSLs	Residential & Commercial I Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs	Industrial & Commercial II, III & IV Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs	Groundwater Contact Criteria & RBSLs	Sample Identification and Date		
								B-1 W 3/9/2005	B-6 W 3/9/2005	B-7 W 3/9/2005
Volatile Organic Compounds (ug/L)	CAS #									
Benzene (I)	71432	5 0 (A)	5.0 (A)	200 (X)	5,600	35,000	11,000	ND	ND	ND
Toluene (I)	108883	790 (E)	790 (E)	140	5 3E+5 (S)	5 3E+5 (S)	5 3E+5 (S)	ND	ND	ND
Ethylbenzene (I)	100414	74 (E)	74 (E)	18	1 1E+5	1 7E+5 (S)	1 7E+5 (S)	ND	ND	ND
Xylenes (I)	1330207	280 (E)	280 (E)	35	1 9E+5 (S)	1 9E+5 (S)	1 9E+5 (S)	ND	ND	ND
Methyl-tert-butyl ether (MTBE)	1634044	40 (E)	40 (E)	730 (X)	4 7E+7 (S)	4 7E+7 (S)	6 1E+5	ND	ND	ND
1,2,4-Trimethylbenzene (I)	95636	63 (E)	63 (E)	17	56,000 (S)	56,000 (S)	56,000 (S)	ND	ND	ND
1,3,5-Trimethylbenzene (I)	108678	72 (E)	72 (E)	45	61,000 (S)	61,000 (S)	61,000 (S)	ND	ND	ND
1,2-Dichloroethane (I)	107062	5 0 (A)	5 0 (A)	360 (X)	9,600	59,000	19,000	ND	ND	ND
Ethylene dibromide	106934	0 05 (A)	0 05 (A)	0 2 (X)	2,400	15,000	25	ND	ND	ND
2-Methylnaphthalene	91576	260	750	ID	ID	ID	25,000 (S)	ND	ND	ND
Naphthalene	91203	520	1,500	13	31,000 (S)	31,000 (S)	31,000 (S)	ND	ND	ND
Remaining VOCs	Various	-	-	-	-	-	-	ND	ND	ND
Polynuclear Aromatic Hydrocarbons (ug/L)										
Acenaphthene	83329	1,300	3,800	19	4,200 (S)	4,200 (S)	4,200 (S)	ND	ND	ND
Acenaphthylene	208968	52	150	ID	3,900 (S)	3,900 (S)	3,900 (S)	ND	ND	ND
Anthracene	120127	43 (S)	43 (S)	ID	43 (S)	43 (S)	43 (S)	ND	ND	ND
Benzo(a)anthracene (Q)	56553	2 1	8 5	ID	NLV	NLV	9 4 (S,AA)	ND	ND	ND
Benzo(a)pyrene (Q)	50328	5 0 (A)	5.0 (A)	ID	NLV	NLV	1.0 (M,AA), 0 64	ND	ND	ND
Benzo(b)fluoranthene (Q)	205992	1 5 (S, AA)	1 5 (S, AA)	ID	ID	ID	1 5 (S,AA)	ND	ND	ND
Benzo(g,h,i)perylene	191242	1 0 (M), 0 26 (S)	1 0 (M), 0 26 (S)	NA	NLV	NLV	1 0 (M,AA), 0 26 (S)	ND	ND	ND
Benzo(k)fluoranthene (Q)	207089	1 0 (M), 0 8 (S)	1 0 (M), 0 8 (S)	NA	NLV	NLV	1 0 (M,AA), 0 8 (S)	ND	ND	ND
Chrysene (Q)	218019	1 6 (S)	1 6 (S)	ID	ID	ID	1 6 (S,AA)	ND	ND	ND
Dibenzo(a,h)anthracene (Q)	53703	2 0 (M), 0 21	2 0 (M), 0 85	ID	NLV	NLV	2 0 (M,AA), 0 31	ND	ND	ND
Fluoranthene	206440	210 (S)	210 (S)	1 6	210 (S)	210 (S)	210 (S)	ND	ND	ND
Fluorene	86737	880	2,000 (S)	12	2,000 (S)	2,000 (S)	2,000 (S)	ND	ND	ND
Indeno(1,2,3-cd)pyrene (Q)	193395	2 0 (M), 0 022 (S)	2 0 (M), 0 022 (S)	ID	NLV	NLV	2 0 (M, AA), 0 022 (S)	ND	ND	ND
Phenanthrene	85018	52	150	2 4	1,000 (S)	1,000 (S)	1,000 (S)	ND	ND	ND
Pyrene	129000	140 (S)	140 (S)	ID	140 (S)	140 (S)	140 (S)	ND	ND	ND
Remaining PNAs	Various	-	-	-	-	-	-	ND	ND	ND
Metals (ug/L)										
Cadmium (B)	7440439	**5.0 (A)**	**5.0 (A)**	(G,X)	NLV	NLV	1 9E+5	ND	0 4	**11**
Chromium (VI)	18540299	**100 (A)**	**100 (A)**	**11**	NLV	NLV	4 6E+5	ND	ND	**490**
Lead (B)	7439921	**4.0 (L)**	**4.0 (L)**	(G,X)	NLV	NLV	ID	**6**	**8**	**520**
PCBs (ug/L)										
Polychlorinated biphenyls (PCBs) (J,T)	1336363	0 5 (A)	0 5 (A)	0 2 (M), 2 6E-5	45 (S)	45 (S)	3 3 (AA)	ND	ND	ND
Glycols (ug/L)										
Ethylene glycol	107211	15,000	42,000	1 9E+5 (X)	NLV	NLV	1 0E+9 (S)	NS	NS	NS

Note
(ug/L)-Micrograms per liter
A - Criterion is the State of Michigan Drinking Water Standard established pursuant to Section 5 of the Safe Drinking Water Act, Act No 399 of the Public Act of 1976
E - Criterion is the aesthetic drinking water value, as required by Sec 2020(1)(5)
G - GSI criterion is pH or water hardness dependent
L - Reserved
M - Calculated criterion is below the analytical Target Detection Limit (TDL), therefore, the criterion defaults to the TDL
S - Criterion defaults to the chemical-specific water solubility limit
X - The GSI criterion shown is not protective for surface water that is used as a drinking water source
AA - Filtered groundwater samples must be collected for appropriate comparison to the GCC, since these hazardous substances are likely to be adsorbed to particulates rather than dissolved in water
ID - Inadequate data to develop criterion
NA - RBSL or value is not available or, as is the case for Csat, not applicable
ND - Non-detect
NLV - Hazardous substance is not likely to volatilize under most conditions
NS - Not submitted

Underground Storage Tank System
Site Assessment Report and Closure
Tank Number 2 & Tank Number 3

Shell Gas Station Property
Facility ID Number 00009055
975 South Rochester Road
Rochester, Michigan 48037

Prepared for:

Mr. Sam Beydoun, CEO
Safeway Acquisitions Group LLC
8700 Brandt
Dearborn, MI 48126

Completed:

July 17, 2008

C-0214-96
1K-used Oil

2/17/05 T-1, C-R
C-0252-96
1K, 6K-gas

T-1, C-R

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: ID: 00009055

I. OWNERSHIP OF TANKS

NAME OF OWNER (CORPORATION, INDIVIDUAL, ETC.): Safeway Acquisitions Group LLC

STREET ADDRESS: 8700 Brandt

CITY: Dearborn STATE: MI ZIP CODE: 48126

AREA CODE & TELEPHONE NUMBER: 313 624 9911

II. LOCATION OF TANKS

FACILITY NAME OR COMPANY SITE IDENTIFIER: Shell Service Station

STREET ADDRESS (PO BOX NOT ACCEPTABLE): 975 S. Rochester Rd

CITY: Rochester STATE: MI ZIP CODE: 48037

CONTACT PERSON FOR LOCATION: Kassem Beydoun

AREA CODE & TELEPHONE NUMBER: 313 624 9911

III. TANK INFORMATION

TANK NUMBER	2	3			
TANK SIZE	10,000	6,000			Waste & Hazardous Materials Division
SUBSTANCE STORED	Gasoline	Gasoline			
DATE LAST USED	6/16/08	6/16/08			JUL 21 2008
DATE CLOSED	6/11/08	6/11/08			
REMOVED FROM GROUND	No	No			
CLOSED IN PLACE (INDICATE TYPE OF FILL)	Concrete	Concrete			
CHANGE-IN-SERVICE					

OWNER'S NAME: Safeway Acquisition Co LLC

OWNER'S SIGNATURE:

DATE: 7-17-08

IV. SUBMITTER INFORMATION

SUBMITTED BY (COMPANY NAME): Midwest Environmental Consulting Corp.

NAME (INDIVIDUAL): James A. Kyle

SIGNATURE: James A. Kyle

DATE: 6/24/08

AREA CODE & TELEPHONE NUMBER: 313 792 9670

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	DATE OF REVIEW

MAIL COPIES TO: WASTE AND HAZARDOUS MATERIALS DIVISION, STORAGE TANK UNIT
DEPARTMENT OF ENVIRONMENTAL QUALITY
PO BOX 30241 LANSING, MI 48909-7741

EQP3881 (11/05)

SMK JUL 22 2008

SMK JUL 22 2008

EN...ONI...TAL QUAL... LAB...ATORIES, ...
44075 Phoenix Drive
Sterling Heights, Michigan 48314-1420
Phone 586.731.1818 Fax 586.731.2590
Outside Michigan 1.800.368.5227
www.environmentalqualitylabs.com

CLIENT NAME: MIDWEST ENVIRONMENTAL
4507 S. VERNON RD
DEARBORN, MI 48124

PROJECT NAME/NO.: 975 S ROCHESTER RD

DATE REPORTED	DATE RECEIVED	SAMPLE TEMP	DATE COLLECTED	DATE ANALYZED
06/19/08	06/12/08	4°C	06/12/08	06/12/08

ANALYZED BY: NK **REFERENCED METHOD:** 8021/5035

DRY WEIGHT CORRECTED (SOILS ONLY)
ALL RESULTS REPORTED IN ppBillion

LAB NO. / COMPOUND NAME	RDL SOIL ppB	RDL WATER ppB	1323 SOIL SB-1 10.5'	1324 SOIL SB-2 12'	1325 SOIL SB-3 11'	1326 SOIL SB-4 11'	1327 SOIL SB-5 11'	1328 SOIL SB-6 3.5'	1329 SOIL SB-6 12'
BENZENE	50	1.0	ND	ND	ND	ND	ND	ND	ND
TOLUENE	100	1.0	ND	ND	ND	ND	ND	ND	ND
ETHYLBENZENE	50	1.0	ND	ND	ND	ND	ND	ND	ND
XYLENES	150	3.0	ND	ND	ND	ND	ND	ND	ND

NOTE: "ND" DENOTES THAT ANALYTE RESULT IS BELOW THE REPORTED REGULATORY DERIVED TARGET LIMIT OF DETECTION.

THOMAS S. MEGNA, PRESIDENT ____________ ALA GAJDA, LAB SUPERVISOR ____________

REFERENCES: 40 CFR PART 136. CURRENT EDITION. las rev 020105

ENVIRONMENTAL QUALITY LABORATORIES, INC.
44075 Phoenix Drive
Sterling Heights, Michigan 48314-1420
(586) 731-1818 • (800) 368-5227 • Fax (586) 731-2590

Chain of Custody / Analysis Request

1 Consultant: Midwest Environmental
Sampler: J. Kyle Phone:
Project: 975 S. Rochester Rd
Fax:

2 Sample Identification	Collection Date	Collection Time	Grab	Composite	4 Matrix: Soil	Water	Other	5 # of Containers	Analysis Requested: BTEX	6 Remarks
SB-1 10.5' 1323	6/12	9:15			✓			2	✓	
SB-2 12' 1324		9:40			✓			2	✓	
SB-3 11' 1325		10:00			✓			2	✓	
SB-4 11' 1326		10:15			✓			2	✓	
SB-5 11' 1327		10:40			✓			2	✓	
SB-6 3.5' 1328		10:50			✓			2	✓	
SB-6 12' 1329		11:00			✓			2	✓	

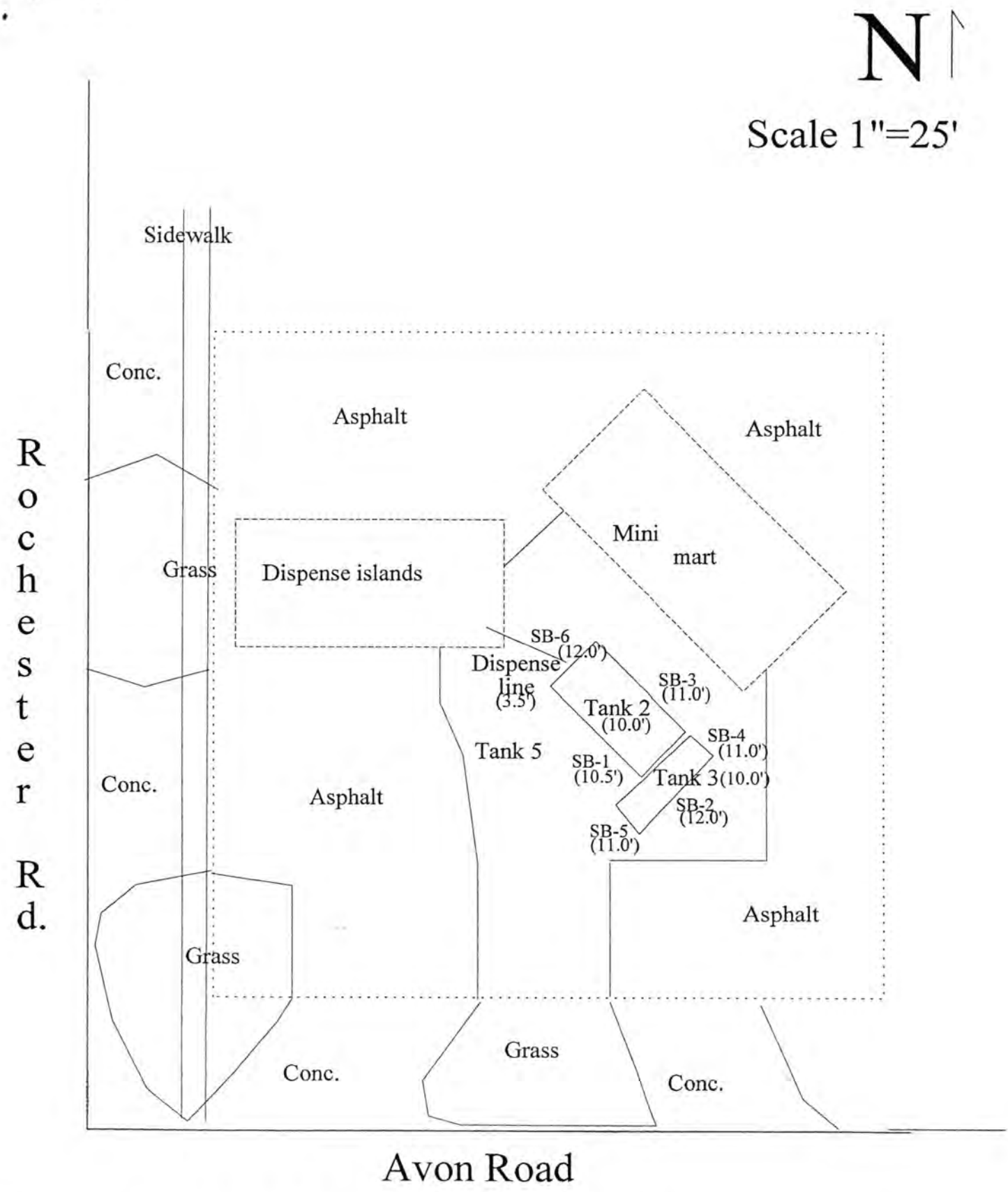
7 Turnaround time requested, (please circle): Emergency, Routine
(Call to confirm Emergency turnaround time).
Rush analysis results via:
Fax#: 866-633-5691 -or- Phone #:

8 - This section MUST be signed each time the sample changes hands -

Relinquished by	Date	Time	Received by	Date	Time
	6/12/08	11:10		12.5.08	1130
	12 June	1230			

9 CONDITION OF SAMPLES UPON RECEIPT AT EQL.
Sample Temp: _____ Preserve? _____ Damaged? _____
Comments:

In case we have questions when the samples arrive, call:
Name: Jim Kyle Phone: 313-850-6127
Send report to:



Site Sketch-975 South Rochester Road, Rochester, N

Appendix D

PM ENVIRONMENTAL Environmental & Engineering Services

ENVIRONMENTAL DATABASE SEARCH

945 and 975 South Rochester Road
945 and 975 South Rochester Road
Rochester Hills, MI 48307

Inquiry Number: 05753114.2r
August 15, 2019

The EDR Radius Map™ Report

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

TABLE OF CONTENTS

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

945 AND 975 SOUTH ROCHESTER ROAD
ROCHESTER HILLS, MI 48307

COORDINATES

Latitude (North):	42.6668540 - 42° 40' 0.67''
Longitude (West):	83.1326620 - 83° 7' 57.58''
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	325225.8
UTM Y (Meters):	4725811.0
Elevation:	843 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	6066320 ROCHESTER, MI
Version Date:	2014
East Map:	6066338 UTICA, MI
Version Date:	2014

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140721
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
945 AND 975 SOUTH ROCHESTER ROAD
ROCHESTER HILLS, MI 48307

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	EXPRESS 100 INC.	975 S ROCHESTER RD	LUST, UST, INVENTORY		TP
A2	FORMER SHELL 975 ROC	975 ROCHESTER ROAD	AUL		TP
A3	SHELL SERVICE STATIO	975 S ROCHESTER RD	RGA LUST		TP
A4	ROCHESTER HILLS INC	975 S ROCHESTER RD	EDR Hist Auto		TP
A5	EQUILON ENTERPRISES	975 S ROCHESTER RD	WDS		TP
A6	EXPRESS 100 INC.	975 S ROCHESTER RD	Financial Assurance		TP
A7	SHELL SERVICE STATIO	975 S ROCHESTER	RGA LUST		TP
A8	SANYO MACHINE AMERIC	950 S ROCHESTER RD	UST	Higher	80, 0.015, NW
A9	DETROIT BROACH & MAC	950 S ROCHESTER RD	RCRA NonGen / NLR, FINDS, ECHO	Higher	80, 0.015, NW
B10	SPEEDWAY #8832	1010 S ROCHESTER RD	LUST, UST, AUL, INVENTORY, AIRS, Financial...	Lower	220, 0.042, SSW
B11	SPEEDWAY SUPERAMERIC	1010 N ROCHESTER RD	EDR Hist Auto	Lower	220, 0.042, SSW
C12	SPRINGFIELD INDUSTRI	873 ROCHESTER RD	RCRA-CESQG, FINDS, ECHO	Lower	401, 0.076, NNW
B13	LEADER DOG FOR THE B	1039 S ROCHESTER RD	UST	Lower	461, 0.087, South
B14	PENSKE AUTO CENTER	1100 S ROCHESTER RD	RCRA NonGen / NLR	Lower	466, 0.088, SSW
B15	PENSKE AUTO CENTER	1100 S ROCHESTER RD	RCRA-CESQG, FINDS, ECHO	Lower	466, 0.088, SSW
C16	SHELTON PONTIAC-BUIC	855 S ROCHESTER RD	LUST, UST, WDS	Higher	653, 0.124, North
C17	SHELTON PONTIAC BUIC	855 S ROCHESTER RD	RCRA-CESQG, FINDS, ECHO	Higher	653, 0.124, North
D18	FOX TOYOTA/FOX VOLKS	755 AND 773 SOUTH RO	BEA	Lower	929, 0.176, North
D19	FOX TOYOTA/FOX VOLKS	755 AND 773 SOUTH RO	INVENTORY	Lower	929, 0.176, North
D20	770 SOUTH ROCHESTER	770 SOUTH ROCHESTER	INVENTORY	Lower	939, 0.178, North
D21	FOX TOYOTA/FOX VOLKS	755 ROCHESTER ROAD	INVENTORY, BEA	Lower	1009, 0.191, North
D22	BILL FOX AMC INC	755 S ROCHESTER RD	LUST, UST, INVENTORY, ASBESTOS	Lower	1009, 0.191, North
D23	FOX AUTOMOTIVE GROUP	755 S ROCHESTER RD	RCRA-SQG, FINDS, ECHO	Lower	1009, 0.191, North
D24	MIDAS MUFFLER	746 S ROCHESTER RD	RCRA-CESQG, FINDS, ECHO	Lower	1046, 0.198, North
E25	CHRISMAN LINCOLN MER	1185 S ROCHESTER RD	UST	Lower	1111, 0.210, South
E26	CRISSMAN LINCOLN MER	1185 S ROCHESTER RD	RCRA NonGen / NLR	Lower	1111, 0.210, South
E27	CRISSMAN LINCOLN MER	1185 S. ROCHESTER RO	US BROWNFIELDS	Lower	1111, 0.210, South
28	LIFETIME FITNESS	200 W AVON RD	RCRA NonGen / NLR	Lower	1162, 0.220, WNW
F29	BILL FOX CHEVROLET I	725 S ROCHESTER RD	RCRA-SQG, FINDS, ECHO	Lower	1274, 0.241, North
F30	BILL FOX CHEVROLET I	725 S ROCHESTER RD	LUST, UST, Financial Assurance, WDS	Lower	1274, 0.241, North
31	ROCHESTER HILLS CHRR	1301 S ROCHESTER RD	LUST, UST, Financial Assurance	Lower	1522, 0.288, South
32	ROCHESTER GLASS WORK	560 S ROCHESTER RD	LUST, INVENTORY, BEA	Lower	2065, 0.391, North
33	WP BURKE CO	93 MILL STREET	DEL PART 201, WDS	Lower	3740, 0.708, North
34	ITT AUTOMOTIVE	301 EAST THIRD STREE	AUL, PART 201, BEA	Lower	4614, 0.874, North

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
EXPRESS 100 INC. 975 S ROCHESTER RD ROCHESTER HILLS, MI 48307	LUST Release Status: Closed Substance Release: Used Oil Substance Release: Gasoline Facility Id: 00009055 UST Database: UST, Date of Government Version: 02/06/2019 Tank Status: Removed from Ground Tank Status: Currently In Use Facility Type: ACTIVE Facility Id: 00009055 INVENTORY Facility ID: 00009055	N/A
FORMER SHELL 975 ROC 975 ROCHESTER ROAD ROCHESTER HILLS, MI 48037	AUL Facility ID: 00000905	N/A
SHELL SERVICE STATIO 975 S ROCHESTER RD ROCHESTER, MI	RGA LUST Facility ID: 9055	N/A
ROCHESTER HILLS INC 975 S ROCHESTER RD ROCHESTER, MI 48063	EDR Hist Auto	N/A
EQUILON ENTERPRISES 975 S ROCHESTER RD ROCHESTER HILLS, MI 48307	WDS WMD Id: 426933 Site Id: MIG000008833	N/A
EXPRESS 100 INC. 975 S ROCHESTER RD ROCHESTER HILLS, MI 48307	Financial Assurance Database: FINANCIAL ASSURANCE 3, Date of Government Version: 04/08/2019	N/A
SHELL SERVICE STATIO 975 S ROCHESTER ROCHESTER, MI	RGA LUST Facility ID: 9055	N/A

EXECUTIVE SUMMARY

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
SEMS ---------- Superfund Enterprise Management System

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

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

State- and tribal - equivalent CERCLIS

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

EXECUTIVE SUMMARY

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 Lists of Landfill / Solid Waste Disposal Sites

HIST LF ---------- Inactive Solid Waste Facilities
SWRCY ---------- Recycling Facilities
INDIAN ODI ---------- Report on the Status of Open Dumps on Indian Lands
ODI ---------- Open Dump Inventory
DEBRIS REGION 9 ---------- Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS ---------- Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ---------- Delisted National Clandestine Laboratory Register
CDL ---------- Clandestine Drug Lab Listing
US CDL ---------- National Clandestine Laboratory Register

Local Land Records

LIENS ---------- Lien List
LIENS 2 ---------- CERCLA Lien Information

Records of Emergency Release Reports

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

Other Ascertainable Records

FUDS ---------- Formerly Used Defense Sites
DOD ---------- Department of Defense Sites

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

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA PART 201	Recovered Government Archive State Hazardous Waste Facilities List

EXECUTIVE SUMMARY

RGA LF---------- Recovered Government Archive Solid Waste Facilities List

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 RCRA generators list

RCRA-SQG: 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.

A review of the RCRA-SQG list, as provided by EDR, and dated 03/25/2019 has revealed that there are 2 RCRA-SQG sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
FOX AUTOMOTIVE GROUP EPA ID:: MID151407434	***755 S ROCHESTER RD***	***N 1/8 - 1/4 (0.191 mi.)***	***D23***	***43***
BILL FOX CHEVROLET I EPA ID:: MID017338039	***725 S ROCHESTER RD***	***N 1/8 - 1/4 (0.241 mi.)***	***F29***	***59***

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 03/25/2019 has revealed that there are 4 RCRA-CESQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SHELTON PONTIAC BUIC EPA ID:: MID017339078	***855 S ROCHESTER RD***	***N 0 - 1/8 (0.124 mi.)***	***C17***	***37***

Lower Elevation	Address	Direction / Distance	Map ID	Page
SPRINGFIELD INDUSTRI	***873 ROCHESTER RD***	***NNW 0 - 1/8 (0.076 mi.)***	***C12***	***27***

EPA ID:: MIK158690277

PENSKE AUTO CENTER	***1100 S ROCHESTER RD***	***SSW 0 - 1/8 (0.088 mi.)***	***B15***	***31***
EPA ID:: MIK777456526				
MIDAS MUFFLER	***746 S ROCHESTER RD***	***N 1/8 - 1/4 (0.198 mi.)***	***D24***	***45***
EPA ID:: MIR000008375				

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 05/03/2019 has revealed that there are 6 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SHELTON PONTIAC-BUIC	***855 S ROCHESTER RD***	***N 0 - 1/8 (0.124 mi.)***	***C16***	***33***
Release Status: Closed				
Substance Release: Other,Used Oil,Other				
Facility Id: 00002058				

Lower Elevation	Address	Direction / Distance	Map ID	Page
SPEEDWAY #8832	***1010 S ROCHESTER RD***	***SSW 0 - 1/8 (0.042 mi.)***	***B10***	***18***
Release Status: Open				
Substance Release: Unknown,Unknown				
Substance Release: Gasoline,Gasoline,Diesel				
Facility Id: 00016387				
BILL FOX AMC INC	***755 S ROCHESTER RD***	***N 1/8 - 1/4 (0.191 mi.)***	***D22***	***41***
Release Status: Open				
Substance Release: Gasoline,Unknown				
Facility Id: 00007644				
BILL FOX CHEVROLET I	***725 S ROCHESTER RD***	***N 1/8 - 1/4 (0.241 mi.)***	***F30***	***63***
Release Status: Closed				
Substance Release: Unknown				
Facility Id: 00003748				
ROCHESTER HILLS CHRR	***1301 S ROCHESTER RD***	***S 1/4 - 1/2 (0.288 mi.)***	***31***	***66***
Release Status: Closed				
Substance Release: Gasoline				
Facility Id: 00008294				
ROCHESTER GLASS WORK	***560 S ROCHESTER RD***	***N 1/4 - 1/2 (0.391 mi.)***	***32***	***69***
Release Status: Open				
Substance Release: Unknown				
Facility Id: 50002234				

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 7 UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SANYO MACHINE AMERIC	950 S ROCHESTER RD	NW 0 - 1/8 (0.015 mi.)	A8	15
Database: UST, Date of Government Version: 02/06/2019 Tank Status: Temporarily Out of Use Facility Type: CLOSED Facility Id: 00002684				
SHELTON PONTIAC-BUIC	***855 S ROCHESTER RD***	***N 0 - 1/8 (0.124 mi.)***	***C16***	***33***
Database: UST, Date of Government Version: 02/06/2019 Tank Status: Removed from Ground Facility Type: CLOSED Facility Id: 00002058				

Lower Elevation	Address	Direction / Distance	Map ID	Page
SPEEDWAY #8832	***1010 S ROCHESTER RD***	***SSW 0 - 1/8 (0.042 mi.)***	***B10***	***18***
Database: UST, Date of Government Version: 02/06/2019 Tank Status: Currently In Use Tank Status: Removed from Ground Facility Type: ACTIVE Facility Id: 00016387				
LEADER DOG FOR THE B	1039 S ROCHESTER RD	S 0 - 1/8 (0.087 mi.)	B13	29
Database: UST, Date of Government Version: 02/06/2019 Tank Status: Removed from Ground Facility Type: CLOSED Facility Id: 00019352				
BILL FOX AMC INC	***755 S ROCHESTER RD***	***N 1/8 - 1/4 (0.191 mi.)***	***D22***	***41***
Database: UST, Date of Government Version: 02/06/2019 Tank Status: Removed from Ground Facility Type: CLOSED Facility Id: 00007644				
CHRISMAN LINCOLN MER	1185 S ROCHESTER RD	S 1/8 - 1/4 (0.210 mi.)	E25	47
Database: UST, Date of Government Version: 02/06/2019 Tank Status: Currently In Use Tank Status: Removed from Ground Facility Type: CLOSED Facility Id: 00003791				
BILL FOX CHEVROLET I	***725 S ROCHESTER RD***	***N 1/8 - 1/4 (0.241 mi.)***	***F30***	***63***
Database: UST, Date of Government Version: 02/06/2019 Tank Status: Currently In Use Tank Status: Removed from Ground Facility Type: ACTIVE Facility Id: 00003748				

EXECUTIVE SUMMARY

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 03/19/2019 has revealed that there is 1 AUL site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SPEEDWAY #8832	***1010 S ROCHESTER RD***	***SSW 0 - 1/8 (0.042 mi.)***	***B10***	***18***
Facility ID: 00016359				

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: The EPA's listing of Brownfields properties from the Cleanups in My Community program, which provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

A review of the US BROWNFIELDS list, as provided by EDR, and dated 12/17/2018 has revealed that there is 1 US BROWNFIELDS site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CRISSMAN LINCOLN MER	1185 S. ROCHESTER RO	S 1/8 - 1/4 (0.210 mi.)	E27	55
ACRES property ID: 113893				

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.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ITT AUTOMOTIVE	***301 EAST THIRD STREE***	***N 1/2 - 1 (0.874 mi.)***	***34***	***70***
Facility Status: Remedial Action in Progress (may incl. use restrictions, O&M and/or monitoring)				
Facility ID: 63000881				

EXECUTIVE SUMMARY

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 04/23/2019 has revealed that there are 6 INVENTORY sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SPEEDWAY #8832	***1010 S ROCHESTER RD***	***SSW 0 - 1/8 (0.042 mi.)***	***B10***	***18***
Facility ID: 00016387				
FOX TOYOTA/FOX VOLKS	755 AND 773 SOUTH RO	N 1/8 - 1/4 (0.176 mi.)	D19	40
770 SOUTH ROCHESTER	770 SOUTH ROCHESTER	N 1/8 - 1/4 (0.178 mi.)	D20	40
FOX TOYOTA/FOX VOLKS	***755 ROCHESTER ROAD***	***N 1/8 - 1/4 (0.191 mi.)***	***D21***	***41***
BILL FOX AMC INC	***755 S ROCHESTER RD***	***N 1/8 - 1/4 (0.191 mi.)***	***D22***	***41***
Facility ID: 00007644				
ROCHESTER GLASS WORK	***560 S ROCHESTER RD***	***N 1/4 - 1/2 (0.391 mi.)***	***32***	***69***
Facility ID: 50002234				

DEL PART 201: A deleted site has been removed from the Part 201 List because information known to the DEQ at the time of the evaluation does not support inclusion on the Part 201 List. This designation is often applied to sites where changes in cleanup criteria resulted in a determination that the site no longer exceeds any applicable cleanup criterion. A delisted site has been removed from the Part 201 List because response actions have reduced the levels of contaminants to concentrations which meet or are below the criteria for unrestricted residential use.

A review of the DEL PART 201 list, as provided by EDR, and dated 08/01/2013 has revealed that there is 1 DEL PART 201 site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
WP BURKE CO	***93 MILL STREET***	***N 1/2 - 1 (0.708 mi.)***	***33***	***70***
Facility Id: 63000175				
Facility Id: 63000829				

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 03/25/2019 has revealed that there are 4 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
DETROIT BROACH & MAC EPA ID:: MID041115361	***950 S ROCHESTER RD***	***NW 0 - 1/8 (0.015 mi.)***	***A9***	***16***

Lower Elevation	Address	Direction / Distance	Map ID	Page
PENSKE AUTO CENTER EPA ID:: MIR000010850	1100 S ROCHESTER RD	SSW 0 - 1/8 (0.088 mi.)	B14	30
CRISSMAN LINCOLN MER EPA ID:: MID052048972	1185 S ROCHESTER RD	S 1/8 - 1/4 (0.210 mi.)	E26	53
LIFETIME FITNESS EPA ID:: MIK992176982	200 W AVON RD	WNW 1/8 - 1/4 (0.220 mi.)	28	58

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 3 BEA sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
FOX TOYOTA/FOX VOLKS	755 AND 773 SOUTH RO	N 1/8 - 1/4 (0.176 mi.)	D18	40
FOX TOYOTA/FOX VOLKS	***755 ROCHESTER ROAD***	***N 1/8 - 1/4 (0.191 mi.)***	***D21***	***41***
ROCHESTER GLASS WORK	***560 S ROCHESTER RD***	***N 1/4 - 1/2 (0.391 mi.)***	***32***	***69***

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 is 1 EDR Hist Auto site within approximately 0.125 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SPEEDWAY SUPERAMERIC	1010 N ROCHESTER RD	SSW 0 - 1/8 (0.042 mi.)	B11	27

EXECUTIVE SUMMARY

There were no unmapped sites in this report.