



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY – REMEDIATION DIVISION
 PO BOX 30426, LANSING, MI 48909-7926, Phone 517-373-9837, Fax 517-373-2637

LEAKING UNDERGROUND STORAGE TANK CLOSURE REPORT

INSTRUCTIONS: COMPLETION OF THIS REPORT WITH ALL APPLICABLE INFORMATION IS MANDATORY. The owner/operator and Qualified Underground Storage Tank Consultant (QC) must complete the affidavits below. PLEASE SUBMIT THE COMPLETED CLOSURE REPORT AND ASSOCIATED ATTACHMENTS TO THE APPROPRIATE RD DISTRICT OFFICE. See DEQ Form EQP 4410 at www.michigan.gov/deqrrd for a complete list of RD district and field offices.

SITE NAME: State Fairgrounds Site		FACILITY ID NUMBER: 0-0009795	
STREET ADDRESS: 1120 West State Fair Drive			
CITY: Detroit	ZIP: 48203	COUNTY: Wayne	
DATE(S) RELEASE(S) DISCOVERED: May 9, 2003		CONFIRMED RELEASE NUMBER(S): C-0187-03	
O/O NAME: Michigan Department of Technology, Management and Budget		O/O EMAIL ADDRESS: rayvans@michigan.gov	
O/O STREET ADDRESS: 530 West Allegan Street	CITY: Lansing	STATE: MI	ZIP: 48933
CONTACT PERSON:	PHONE: (517) 335-7949	FAX:	

Permission is given for the Department of Environmental Quality to contact the QC: YES NO

ANSWER ALL QUESTIONS (DO NOT LEAVE BLANKS):

1. Type of RBCA Evaluation: Tier 1 Tier 2 Tier 3
 Closure report based on which type of land use?: Residential Nonresidential
 Institutional Controls: None Notice of Corrective Action Restrictive Covenant Other
2. Is mobile NAPL present: a. Currently? YES NO b. Previously? YES NO
 If present, was it recovered? YES NO If recoverable, total gallons recovered since last reported _____ to date: _____
3. Is migrating NAPL present: YES NO If yes, have actions been taken to prevent migration? YES NO
4. Were corrective actions necessary to address the vapor intrusion pathway? YES NO
5. Drinking water supply affected as a result of the release(s)? Currently: YES NO Previously: YES NO
 Indicate type and # of wells impacted: Private, # = 0 Public Type II/III, # = 0 Municipal, # = 0
6. Estimated distance and direction from point of release to nearest:
 a. Private well: > 5 miles b. Municipal well: > 5 miles c. Surface water/wetland: > 5 miles
7. Since last report: a. cubic yards of soil remediated: NONE b. gallons of groundwater remediated: NONE
8. Totals to date: a. cubic yards of soil remediated: 300 cubic yards b. gallons of groundwater remediated: NONE
9. Current Site Classification (1-4): 4 Previous Highest Risk Site Classification (1-4): 3
10. 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

OWNER/OPERATOR AFFIDAVIT OF REPORT COMPLETENESS

I attest that the information upon which the closure report is based is complete and true to the best of my knowledge, in accordance with Part 213, 1994 PA 451, as amended.

Signature of Owner or Operator/Affiant

Date

Print Owner or Operator/Affiant Name

Name of Company (if applicable)

Sworn to before me and subscribed in my presence this ____ day of _____, 20__.

Notary Public

Print Name

County of _____

My Commission Expires _____

Acting in the County of _____

QUALIFIED UNDERGROUND STORAGE TANK CONSULTANT AFFIDAVIT OF CLOSURE

As preparer of the Closure Report, I attest to the fact that the corrective actions detailed in the closure report complies with all applicable requirements under the applicable Risk Based Corrective Action standard and that the information upon which the closure report is based is true and accurate to the best of my knowledge. Attached is a Certificate of Insurance demonstrating that I have obtained all the insurance required under Section 21325 of Part 213, 1994 PA 451, as amended.

Melzar L. Coulter
QC/Affiant Signature

7.17.12
Date

Melzar L. Coulter, P.E.
Print QC's/Affiant's Name

Materials Testing Consultants
Name of Consulting Firm

693 Plymouth Avenue NE,
Address Grand Rapids, MI 49505

(616) 456-5469
Phone

mcoulter@mateco.com
Email

Sworn to before me and subscribed in my presence this 17 day of July, 2012.

Tina M. Porcelli
Notary Public

TINA M. PORCELLI
Notary Public, State of Michigan
County of Kent
My Commission Expires 04-02-2013
Acting in the county of Kent

TINA M. Porcelli
Print Name

County of Kent

My Commission Expires 04-02-2013

Acting in the County of Kent





Michigan State Fairgrounds Leaking Underground Storage Tank CLOSURE REPORT

Prepared for: Michigan Department of Technology, Management and Budget
July 17, 2012

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TABLE OF CONTENTS

1. INTRODUCTION	1
2. PROJECT CHRONOLOGY.....	3
3. SUMMARY OF CORRECTIVE ACTION ACTIVITIES.....	5
3.1 IMMEDIATE RESPONSE ACTION IMPLEMENTATION.....	5
3.2 SITE ASSESSMENT ACTIVITIES.....	5
3.2.1 SOIL CONDITIONS AND CHARACTERISTICS.....	5
3.2.2 GROUNDWATER CONDITIONS AND CHARACTERISTICS.....	6
3.3 SITE CLASSIFICATION.....	6
3.4 TIERED EVALUATION AND CLEANUP GOALS.....	6
3.5 NOTICES AND RESTRICTIONS.....	6
3.6 CORRECTIVE ACTION PLAN.....	6
4. CLOSURE VERIFICATION SAMPLING.....	9
4.1 SOIL VERIFICATION SAMPLING.....	9
4.1.1 2003 EXCAVATION SAMPLING.....	9
4.1.2 2009 PHASE II ESA SAMPLING.....	9
4.1.3 2012 PHASE III ESA SAMPLING.....	9
4.1.4 SOIL SAMPLE RESULTS SUMMARY.....	10
4.2 GROUNDWATER VERIFICATION SAMPLING.....	11
5. CONCLUSIONS.....	13
6. REFERENCES.....	15

LIST OF FIGURES

- Figure 1: Site Location Map
- Figure 2: UST Location Map
- Figure 3: UST Excavation Sample Location Map
- Figure 4: UST Excavation Cross-Section

LIST OF TABLES

- Table 1: Water Well Summary Within 3 Miles of Site
- Table 2: Site Classification Summary
- Table 3: 2003 Excavation Soil Sample Results
- Table 4: 2009 Phase II Environmental Site Assessment Soil Sample Results
- Table 5: 2012 Phase III Environmental Site Assessment Soil Sample Results
- Table 6: 2003 Excavation Groundwater Sample Results

APPENDICES

Appendix A: Michigan Department of Environmental Quality Status Report-March 5, 2004

Appendix B: Confirmed Release Report

Appendix C: Underground Storage Tank Registration

1. INTRODUCTION

This Leaking Underground Storage Tank Closure Report was prepared by LimnoTech on behalf of EcoRock Consulting, LLC (EcoRock) for the Michigan State Fairgrounds property, in accordance with the requirements of Part 213 of Michigan Public Act 451 of 1994, as amended (Part 213). This report summarizes all corrective actions, investigations and results related to a confirmed release from two gasoline underground storage tanks (USTs) located in the Midway UST area of the Michigan State Fairgrounds, located in Wayne County at 1120 West State Fair Avenue, Detroit, Michigan ([Figure 1](#)).

Site activities included removal of the two USTs and contaminated soils.

All of the recognized environmental conditions (RECs) identified during the Phase I and II ESAs were investigated in Phase III and soil sample results indicate that the soils have been remediated to below the applicable Non-Residential Cleanup Criteria under Part 201 and Tier 1 Risk-Based Screening Levels under Part 213.

The site is therefore eligible for No Further Action Status; however, potential/future purchasers of the property should ensure they conduct due diligence and a BEA.

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2. PROJECT CHRONOLOGY

The Michigan Department of Environmental Quality (MDEQ) was contacted in early May 2003 regarding the release of petroleum products from two USTs located at the Michigan State Fairgrounds. MDEQ conducted a site visit on May 6, 2003, and found evidence of petroleum product on the ground surface. The Detroit Fire Department and Haz-Mat Level 1 were called to the site to abate the immediate hazard. Approximately 2,400 gallons of gasoline were removed from the USTs on May 6, 2003, as documented in the March 5, 2004 Status Report from Pewu Bah-deh of MDEQ ([Appendix A](#)).

A confirmed release was reported to MDEQ on May 9, 2003 at 12:00 am.

The leaking USTs were removed on July 23, 2003. Approximately 2,857 gallons of fluids were removed prior to the tank removal. A total of 522.6 tons of contaminated soils were removed and disposed at Woodland Meadows Landfill in Van Buren, Michigan.

The Initial Assessment Report and the Final Assessment Report were not submitted for this site.

The Underground Storage Tank Removal Project Completion Report was submitted to MDEQ on November 10, 2003 by RC Engineering (a Wilcox company).

A Phase I Environmental Site Assessment (ESA) was conducted in May 2009 by Materials Testing Consultants, Inc. (MTC) and the Phase II Site Assessment was conducted by MTC in July 2009 at eight locations with recognized environmental conditions (RECs). The Phase III ESA, which included additional soil sampling, was conducted by MTC in June 2012 at four RECs .

All of the recognized environmental conditions (RECs) identified during the Phase I and II ESAs were investigated in Phase III and soil sample results indicate that the soils have been remediated to below the applicable Non-Residential Cleanup Criteria under Part 201 and Tier 1 Risk-Based Screening Levels under Part 213. Based on the results of these investigations, the site meets the requirements for No Further Action Status under Part 201/Part 213.

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3. SUMMARY OF CORRECTIVE ACTION ACTIVITIES

3.1 IMMEDIATE RESPONSE ACTION IMPLEMENTATION

- A. As reported in the Underground Storage Tank Removal Project Completion Report (RC Engineering, 2003), the MDEQ was notified in early May 2003. The confirmed release was reported on May 9, 2003 at 12:00 am ([Appendix B](#)).
- B. It is unknown what portion of the UST system was the source of the leak.
- C. The release was discovered when petroleum product was found on the ground surface following a heavy rain.
- D. Tank tightness testing was not conducted.
- E. It was reported that there were originally six USTs at this location. Four of the tanks were removed in the 1990s. The remaining two tanks are identified on the Registration of Underground Storage Tanks as UST #5 and UST #6 ([Appendix C](#)). Each tank had a capacity of 2,000 gallons and contained gasoline.

Approximately 2,400 gallons of gasoline were removed from the tanks on May 6, 2003 under the supervision of the Detroit Fire Department.

3.2 SITE ASSESSMENT ACTIVITIES

The Michigan State Fairgrounds site is located in a highly urbanized area in Detroit, Michigan. The UST site is located near the Midway area as shown on [Figure 2](#). The UST excavation is shown on [Figure 3](#). There are no surface water bodies or wetlands nearby.

3.2.1 Soil Conditions and Characteristics

The Michigan State Fairgrounds site is about 635 to 640 feet (ft) above mean sea level (amsl) in an area of less permeable tills and clays. The site is located in an interbedded area of a clay unit and a sandy and silty clay unit, located immediately below the surficial fill at the site (Rogers, 1996). The clay unit is generally below and east of the sandy and silty clay unit. The clay unit generally ranges in elevation from 620 to 580 ft amsl, and the sandy and silty clay unit ranges in elevation from 640 ft to 620 ft amsl. The clay unit ranges in thickness from 10 ft along its western margin to more than 30 ft along its eastern margin near the Detroit River. The sandy and silty clay unit ranges in thickness from 10 to 20 ft. The units are interbedded to such a degree that the precise boundary between the sandy and silty clay unit and the clay unit is generally an interpolated contact.

In the UST excavation, sandy fill material was encountered in the top 2 ft. Sandy clay was observed throughout the remainder of the excavation. Mottled, blue-green clay was observed to a depth of approximately 7.5 ft below ground surface and brown clay was observed from 7.5 to 12 ft below ground surface at the extent of the excavation (RC Engineering, 2003). These findings were confirmed in the soil

borings completed in 2009 (MTC, 2009) and 2012 (MTC, 2012). The excavation cross-section from the Underground Storage Tank Removal Project Completion Report is included as [Figure 4](#) (RC Engineering, 2003).

3.2.2 Groundwater Conditions and Characteristics

The probability of encountering near-surface groundwater within the sandy and silty clay and clay units ranges from 22% to 30%. When present, groundwater is generally perched and discontinuous. No known aquifers or water bearing units have been identified at the site and the two clay units have not been used as a source of potable water likely due to insufficient water yield. The migration of contaminants is impeded in these two units because of the low permeability of the clay and the nature of the majority of contaminants to strongly absorb to clayey soil particles. Below these two clay units is a ground moraine (consisting of clay with pebbles) that is 50 to 180 ft thick.

Local well logs for wells situated within 3 miles of the site show a clay/hardpan interval that begins from zero to 19 ft below grade (generally 10 ft or less below grade) and extends to 125 ft or more below grade (Table 1). A few thin (i.e. 2 to 5 ft thick) sand and /or gravel lenses were encountered in a few of the borings. Shale and limestone bedrock was encountered at 125 ft to 135 ft below grade in some of the wells. Well screen intervals for these wells are below the clay/hardpan interval in either sand or bedrock. All known wells within 3 miles of the site are located north of the property and are used for geothermal, irrigation or cathodic protection. One well (owned by Silverman Co.) is listed in the MDEQ Water Well Viewer program as a Type I public well; however, the City of Detroit receives its public water supply from the Detroit River. These wells are listed in [Table 1](#). There are no nearby well-head protection areas.

3.3 SITE CLASSIFICATION

In accordance with RRD Operational Memorandum No. 3, this site is classified as Class 4 with no demonstrable long term threats to human health, safety or sensitive receptors. The current site conditions and basis for classification are summarized in [Table 2](#). Following the tank removal in 2003, the site was classified as Class 3.

3.4 TIERED EVALUATION AND CLEANUP GOALS

A Tier II or Tier III evaluation was not conducted for this site. The closure is based on Tier 1 non-residential criteria.

3.5 NOTICES AND RESTRICTIONS

There are no restrictions based on a non-residential closure scenario.

3.6 CORRECTIVE ACTION PLAN

On July 23, 2003, M.L. Chartier removed approximately 2,857 gallons of product/fluids from the two USTs. The USTs were cleaned, degassed and removed the same day. Visibly stained soils and petroleum odors were detected as the USTs were removed. There were no holes in the tanks and no free product was observed.

A total of 522.6 tons of impacted soil were removed from the excavation and disposed at Woodland Meadows Landfill in Van Buren, Michigan. The excavation measured 33 ft by 37 ft and was 12 ft deep. All disposal documentation/manifests are included in the 2003 Underground Storage Tank Removal Project Completion Report (RC Engineering, 2003).

A distinct water bearing zone was not encountered during the excavation and no pumping of water was required during the excavation and backfilling.

At the completion of the soil removal activities, the excavation was backfilled with sand and compacted. Stone was placed on top of the compacted sand. The stone brought the excavation to approximately six inches below the surrounding grade in preparation for asphalt placement at a later time.

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4. CLOSURE VERIFICATION SAMPLING

4.1 SOIL VERIFICATION SAMPLING

4.1.1 2003 Excavation Sampling

Closure verification sampling was conducted following the soil removal in July 2003. The samples were collected according to the “MDEQ Sampling Strategies and Statistics Training Materials for Part 201 Cleanup Criteria”. A total of 15 samples were collected. Six samples were collected from the floor of the excavation and nine were collected from the sidewalls and former utilities penetrating the excavation.

- Floor Samples: S-21, S-22, S-23, S-24, S-72, S-73
- Sidewall Samples: S-19, S-25, S-26, S-38, S-41, S-49, S-62, S-68, S-71

The soil samples submitted for analysis were collected from differing types of strata at varying levels.

The soil samples were analyzed for volatile organic compounds (VOCs) and lead at the MDEQ Environmental Laboratory in Lansing, Michigan. The analytical parameters were selected based on MDEQ Operational Memorandum No. 14.

The sample locations are shown on [Figure 3](#). The data is summarized in [Table 3](#).

4.1.2 2009 Phase II ESA Sampling

Based on the results of the May 2009 Phase I ESA, a Phase II ESA was conducted at the UST site by MTC in July 2009 (MTC, 2009). MTC completed four borings (B-11 to B-14) adjacent to the visible pavement scar marking the UST removal area, using a Geoprobe. Groundwater was not encountered in the borings.

Sample interval selection was determined in the field based on the presence of staining, field screening results, odors and/or proximity to the capillary fringe. One soil sample was collected from each boring for laboratory analysis. The samples were analyzed for VOCs, polynuclear aromatic hydrocarbons (PNAs) and metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver and zinc) at Pace Analytical Services, Inc. in Milwaukee, Wisconsin. Soil lead samples were analyzed for both fine and coarse fractions.

The sample locations are shown on [Figure 3](#). The data is summarized in [Table 4](#). The boring logs are included in the 2009 Phase II ESA Report (MTC, 2009).

4.1.3 2012 Phase III ESA Sampling

The Phase III ESA was conducted by MTC in June 2012 to fully delineate impacts to soil and/or groundwater at the Midway UST area, previously identified in the May 2009 Phase I ESA and June 2009 Phase II ESA, completed for the Site.

Based on lithologies identified in the Phase II investigation, soil samples were collected from each of the 6 boring locations to total depth of 4 ft below ground surface. Soil samples were screened in the field for the presence of VOCs using a

hand held photo-ionization detector (PID). Subsurface materials generally consisted of brown or black slag sand with some asphaltic slag, gravel, coal fragments, etc. (anthropogenic materials). Native clay below the fill material was stiff, lean, semi-moist to dry, and relatively impermeable, which lead to refusal in some borings. The clay layer was previously identified to be continuous to end of borings (10 to 16 ft bgs).

Groundwater was not identified in any boring locations, except for the boring GP-6, located in the center of the former Midway UST Area tank basin. Perched water was identified from 1 ft to 3 ft bgs in sands that were underlain by an impermeable layer, and dry fill sand was identified below to a depth of 8 ft bgs. No PID readings or sheen on the perched water was identified.

A minimum of one soil sample was collected from each boring and submitted to the laboratory for analyses. The laboratory analyzed all soil samples for Michigan Ten Metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc), VOCs, and PNA analyses.

The boring logs are included in the Phase III ESA Report (MTC, 2012).

4.1.4 Soil Sample Results Summary

The analytical results from soil samples collected in 2003, 2009 and 2012 from the Midway area UST site indicate that all parameters are below the applicable cleanup criteria. The drinking water and GSI exposure pathways are not applicable to this site due to the absence of groundwater and nearby surface water, and the presence of a thick, impermeable clay layer immediately below the UST excavation. Therefore, even though the drinking water and GSI criteria are exceeded in some samples, these criteria are not applicable.

2003

The 2003 sample results for soil samples collected from the excavation indicate that the MTBE drinking water criterion was the only criterion exceeded in the sidewall samples. The benzene concentration exceeded the drinking water criterion in four of the nine floor samples collected. The ethylbenzene concentration exceeded the drinking water and GSI criterion and in four of the nine floor samples. The 1,2,4-trimethylbenzene concentration exceeded drinking water and GSI criterion in one floor sample. The MTBE concentration exceeded drinking water criterion in two of the nine floor samples.

2009

The 2009 Phase II ESA sampling results show that the benzene concentration exceeded the drinking water criterion in one sample and the xylene GSI criterion was exceeded in one sample. All other VOC concentrations were reported below all criteria.

The arsenic concentrations exceeded background levels, the drinking water criterion and the GSI criterion in two of the four samples; however, arsenic is not related to the petroleum release. The zinc concentrations exceeded the background level in two of

the four samples. The lead concentrations exceeded the background level in two of the four samples and exceeded the drinking water criterion in one sample.

2012

The 2012 Phase III ESA sampling results show that all VOC concentrations were below criteria. The arsenic concentration exceeded the drinking water criterion and the GSI criterion in two of the six samples collected. The chromium concentration exceeded the background level in one sample. The zinc concentration exceeded the background level in three of the six samples collected. The selenium concentration exceeded the background level and the GSI criterion in two of the six samples collected.

4.2 GROUNDWATER VERIFICATION SAMPLING

Significant quantities of groundwater were not observed after the USTs were removed. However, one water sample was collected from the floor of the excavation after the USTs were removed. The results are summarized in [Table 6](#) and show that concentrations of VOCs exceed the drinking water and GSI criteria. However, the drinking water and GSI exposure pathways are not applicable to this site due to the absence of groundwater and nearby surface water, and the presence of a thick, impermeable clay layer immediately below the UST excavation. Therefore, even though the drinking water and GSI criteria are exceeded in some samples, these criteria are not applicable.

As discussed in Section 3.2, significant groundwater is located beneath a thick clay/hardpan approximately 135 ft below grade in water wells located within 3 miles of the site. However, groundwater was not encountered in borings installed during the Phase II ESA or the subsequent 2012 Phase III ESA.

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5. CONCLUSIONS

Two gasoline USTs were removed from the Midway UST area of the Michigan State Fairgrounds in 2003. Releases were confirmed and reported. A total of 522 tons of contaminated soil was removed and disposed at a licensed landfill. All of the recognized environmental conditions (RECs) identified during the Phase I and II ESAs were investigated in Phase III and soil sample results indicate that the soils have been remediated to below the applicable Non-Residential Cleanup Criteria under Part 201 and Tier 1 Risk-Based Screening Levels under Part 213.

The site is therefore eligible for No Further Action Status; however, potential/future purchasers of the property should ensure they conduct due diligence and a BEA.

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6. REFERENCES

Materials Testing Consultants, Inc., 2009 Phase II ESA Report.

Materials Testing Consultants, Inc., 2012 Phase III ESA Report.

Michigan Department of Environmental Quality, 2011. Revised Part 201 Cleanup Criteria and Part 213 Risk-based Screening Levels

Michigan Department of Environmental Quality, 2002. Sampling Strategies and Statistics Training Materials for Part 201 Cleanup Criteria

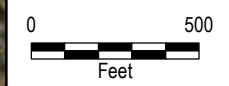
Daniel T. Rogers, 1996, Environmental Geology of Metropolitan Detroit, Clayton Environmental Consultants, Inc, Novi, MI.

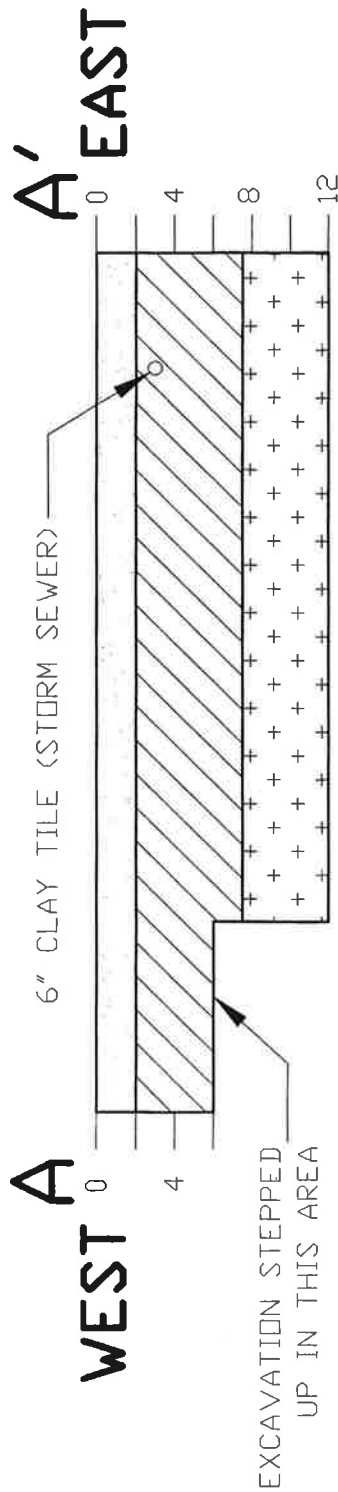
RC Engineering, 2003 Project Completion Report Underground Storage Tank Removal.




FIGURES



Figure 2
UST Site Location Map





-  = SAND FILL
-  = SANDY CLAY (BLUE-GREEN)
-  = SANDY CLAY (BROWN)

CROSS-SECTION PRIOR TO SAND BACKFILL

DRAWN BY: EMR	DATE: 8/1/03	 <p>RC ENGINEERING, INC. CIVIL • MECHANICAL • ELECTRICAL • STRUCTURAL • GEOTECHNICAL ENVIRONMENTAL • TRAFFIC & TRANSPORTATION • PLANNING SURVEYING • CONSTRUCTION SERVICES • COMPUTER CONSULTING 5658 SHERMAN ROAD • SAGINAW, MICHIGAN 48604 PHONE (989) 752-8000 • FAX (989) 752-8000 • TOLL FREE (888) 752-8500 • WWW.RCINC.NET</p>
PROJECT MGR: EMR	SCALE: 1" = 10'	
DATE REVISED: NA	FILE: Site Drawing.DWG	

**FIG. 5- CROSS-SECTIONAL DIAGRAM
 DEPARTMENT OF AGRICULTURE
 MICHIGAN STATE FAIRGROUNDS
 CITY OF DETROIT
 WAYNE COUNTY, MICHIGAN
 RC PROJECT No. E-029947**

FIGURE 4

TABLES

Table 1. Summary of Water Wells Located Within 3 Miles of Former Michigan State Fairgrounds

Well ID	Street Address	City	Owner	Date Completed	Well Use	Clay/Hardpan Interval (ft below grade)	Screen Interval (ft below grade)	Water Bearing Unit (ft below grade)	Soil in Water Bearing Unit
6.3E+10	1650 E Ten Mile Rd	Hazel Park	Hazel Park racing Assoc.	2/23/1967	irrigation	19 - 109	135 - 145	132 - 145	f and m SAND
6.3E+10	313 Predmore Rd (Wynstone #3)		Silverman Co.	8/17/2005	Type I public	44 - 94; 98 - 99; 10	174 - 194	42 - 44; 94 - 98; 99 - 102; 157 - 185; 188 - 194	GR; SAND & GR; silty f SAND;
6.3E+10	222 E. Nine Mile	Ferndale	Ferndale Library	9/8/2009	geothermal	10 - 135	none	no info - closed loop geothermal	LS/SHALE from 135'-402'
6.3E+10	222 E. Nine Mile	Ferndale	City of Ferndale	9/11/2009	geothermal	10 - 135	none	no info - closed loop geothermal	LS/SHALE from 135'-402'
6.3E+10	222 E. Nine Mile	Ferndale	City of Ferndale	9/15/2009	geothermal	10 - 135	none	no info - closed loop geothermal	LS/SHALE from 135'-402'
6.3E+10	222 E. Nine Mile	Ferndale	City of Ferndale	9/15/2009	geothermal	10 - 135	none	no info - closed loop geothermal	LS/SHALE from 135'-402'
6.3E+10	222 E. Nine Mile	Ferndale	City of Ferndale	9/17/2009	geothermal	10 - 135	none	no info - closed loop geothermal	LS/SHALE from 135'-402'
6.3E+10	222 E. Nine Mile	Ferndale	City of Ferndale	9/24/2009	geothermal	10 - 135	none	no info - closed loop geothermal	LS/SHALE from 135'-402'
6.3E+10	222 E. Nine Mile	Ferndale	City of Ferndale	10/1/2009	geothermal	10 - 135	none	no info - closed loop geothermal	LS/SHALE from 135'-402'
6.3E+10	222 E. Nine Mile	Ferndale	City of Ferndale	10/3/2009	geothermal	10 - 135	none	no info - closed loop geothermal	LS/SHALE from 135'-402'
6.3E+10	222 E. Nine Mile	Ferndale	City of Ferndale	10/6/2009	geothermal	10 - 135	none	no info - closed loop geothermal	LS/SHALE from 135'-402'
6.3E+10	222 E. Nine Mile	Ferndale	City of Ferndale	10/8/2009	geothermal	10 - 135	none	no info - closed loop geothermal	LS/SHALE from 135'-402'
6.3E+10	222 E. Nine Mile	Ferndale	City of Ferndale	10/12/2009	geothermal	10 - 135	none	no info - closed loop geothermal	LS/SHALE from 135'-402'
6.3E+10	222 E. Nine Mile	Ferndale	City of Ferndale	10/14/2009	geothermal	10 - 135	none	no info - closed loop geothermal	LS/SHALE from 135'-402'
6.3E+10	222 E. Nine Mile	Ferndale	City of Ferndale	10/16/2009	geothermal	10 - 135	none	no info - closed loop geothermal	LS/SHALE from 135'-402'
6.3E+10	222 E. Nine Mile	Ferndale	City of Ferndale	10/22/2009	geothermal	10 - 135	none	no info - closed loop geothermal	LS/SHALE from 135'-402'
6.3E+10	222 E. Nine Mile	Ferndale	City of Ferndale	10/26/2009	geothermal	10 - 135	none	no info - closed loop geothermal	LS/SHALE from 135'-402'
6.3E+10	222 E. Nine Mile	Ferndale	City of Ferndale	11/2/2009	geothermal	10 - 40; 45 - 125	none	no info - closed loop geothermal	SAND @ 40 - 45; LS/SHALE from 125'-402'
6.3E+10	222 E. Nine Mile	Ferndale	City of Ferndale	11/2/2009	geothermal	10 - 40; 45 - 125	none	no info - closed loop geothermal	SAND @ 40 - 45; LS/SHALE from 125'-402'
6.3E+10	222 E. Nine Mile	Ferndale	City of Ferndale	11/5/2009	geothermal	10 - 40; 45 - 125	none	no info - closed loop geothermal	SAND @ 40 - 45; LS/SHALE from 125'-402'
6.3E+10	222 E. Nine Mile	Ferndale	City of Ferndale	11/5/2009	geothermal	10 - 40; 45 - 125	none	no info - closed loop geothermal	SAND @ 40 - 45; LS/SHALE from 125'-402'
6.3E+10	222 E. Nine Mile	Ferndale	City of Ferndale	11/5/2009	geothermal	10 - 40; 45 - 125	none	no info - closed loop geothermal	SAND @ 40 - 45; LS/SHALE from 125'-402'
6.3E+10	222 E. Nine Mile	Ferndale	City of Ferndale	11/9/2009	geothermal	10 - 40; 45 - 125	none	no info - closed loop geothermal	SAND @ 40 - 45; LS/SHALE from 125'-402'
6.3E+10	222 E. Nine Mile	Ferndale	City of Ferndale	11/9/2009	geothermal	10 - 40; 45 - 125	none	no info - closed loop geothermal	SAND @ 40 - 45; LS/SHALE from 125'-402'
6.3E+10	222 E. Nine Mile	Ferndale	City of Ferndale	11/9/2009	geothermal	10 - 40; 45 - 125	none	no info - closed loop geothermal	SAND @ 40 - 45; LS/SHALE from 125'-402'
6.3E+10	222 E. Nine Mile	Ferndale	City of Ferndale	11/10/2009	geothermal	10 - 40; 45 - 125	none	no info - closed loop geothermal	SAND @ 40 - 45; LS/SHALE from 125'-402'
6.3E+10	222 E. Nine Mile	Ferndale	City of Ferndale	11/10/2009	geothermal	10 - 40; 45 - 125	none	no info - closed loop geothermal	SAND @ 40 - 45; LS/SHALE from 125'-402'
6.3E+10	23261 Sciota Road	Oak Park	Consumers Energy	11/8/2000	cathodic prot	8 - 129	open below 100'?	bedrock (flowing artesian)	SHALE/LS/DOL from 129' - 277'

Table 2. Site Classification Summary

Exposure Pathway	Site Scenario – Class 4
Fire/Explosion	No vapors are present
Drinking Water Ingestion	Groundwater is unavailable and is protected by the presence of a thick, impermeable clay layer immediately below the anthropogenic fill material
Direct Contact	Soil impacts are below the direct contact criteria
Inhalation	Soil impacts are below the volatilization criteria
Groundwater/Surface Water Interface	Groundwater is unavailable and there is no discharge of groundwater to surface water from the site
Sensitive Environmental Receptors	The site is located in an urban area, there is no potential for impacts to affect sensitive habitat or resources

Table 3. 2003 Excavation Soil Sample Results

Sample ID	Analytical Method	S-19	S-21	S-22	S-23	S-24	S-25	S-26	S-38	S-41	S-49	S-62	S-68	S-71	S-72	S-73	Statewide Default Background Levels	Groundwater Protection				Indoor Air	Ambient Air (Y)				Direct Contact					
		7/28/03	7/28/03	7/28/03	7/28/03	7/28/03	7/28/03	7/28/03	7/28/03	7/28/03	7/28/03	7/28/03	7/28/03	7/28/03	7/28/03	7/28/03		7/28/03	Residential Drinking Water Protection Criteria & RBSLs	Non-residential Drinking Water Protection Criteria & RBSLs	Groundwater Surface Water Interface Protection Criteria & RBSLs	Groundwater Contact Protection Criteria & RBSLs	Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs	Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation Criteria & RBSLs	Direct Contact Criteria & RBSLs	Soil Saturation Concentration Screening Levels			
Sample Date	Sample Depth (feet)	2	12	12	12	12	1.25	4	8	4	8	4	4	5	6	6	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Date Analyzed	Collection Method	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	
Benzene	8260	90	<56	<58	<56	<56	210	1,800	<57	2,600	<57	440	<61	<58	<57	<55	NA	100	100	4,000 (X)	2.20E+05	8,400	45,000	99,000	2.30E+05	4.70E+08	4.0E+5 (C)	4.00E+05				
Toluene	8260	130	<56	<58	<56	<56	180	<62	<57	94	<57	<60	<61	<58	<57	<55	NA	16,000	16,000	5,400	2.5E+5 (C)	2.5E+5 (C)	3.30E+06	3.60E+07	3.60E+07	1.20E+10	2.5E+5 (C)	2.50E+05				
Ethylbenzene	8260	94	<56	<58	<56	<56	94	1,800	<57	1,700	<57	570	380	<58	<57	<55	NA	1,500	1,500	360	1.4E+5 (C)	1.4E+5 (C)	2.40E+06	3.10E+06	6.50E+06	1.30E+10	1.4E+5 (C)	1.40E+05				
Xylene	8260	240	<110	<120	<110	<110	362	250	<110	140	<110	590	440	<120	<110	<110	NA	5,600	5,600	820	1.5E+5 (C)	1.5E+5 (C)	5.40E+07	6.50E+07	1.30E+08	1.30E+11	1.5E+5 (C)	1.50E+05				
1,2,4-Trimethylbenzene	8260	220	<56	<58	<56	<56	130	110	<57	190	<57	150	4,300	<58	58	<55	NA	2,100	2,100	570	1.1E+5 (C)	1.1E+5 (C)	2.50E+07	6.00E+08	6.00E+08	3.60E+10	1.1E+5 (C)	1.10E+05				
1,3,5-Trimethylbenzene	8260	<59	<56	<58	<56	<56	<61	<62	<57	<55	<57	<60	130	<58	<57	<55	NA	1,800	1,800	1,100	94,000 (C)	94,000 (C)	1.90E+07	4.60E+08	4.60E+08	3.60E+10	94,000 (C)	94,000				
Methyl tert-butyl ether	8260	<59	2,700	5,600	6,900	9,600	<61	320	7,200	1,800	290	<60	<61	<58	83	190	NA	800	800	1.4E+5 (X)	5.9E+6 (C)	5.9E+6 (C)	3.00E+07	4.10E+07	8.90E+07	8.80E+10	5.9E+6 (C)	5.90E+06				
1,2-Dibromoethane	8260	<59	<56	<58	<56	<56	<61	<62	<57	<55	<57	<60	<61	<58	<57	<55	NA	1,600	4,600	NA	2.0E+6 (C)	ID	ID	ID	ID	ID	2.0E+6 (C)	2.00E+06				
1,2-Dichloroethane	8260	<59	<56	<58	<56	<56	<61	<62	<57	<55	<57	<60	<61	<58	<57	<55	NA	18,000	50,000	15,000	8.9E+5 (C)	4.30E+05	2.50E+06	6.00E+06	1.40E+07	1.50E+10	8.9E+5 (C)	8.90E+05				
Naphthalene	8260	<290	<280	<290	<280	<280	<300	1,600	<290	530	<290	1,600	820	<290	<280	<280	NA	35,000	1.00E+05	730	2.10E+06	4.70E+05	3.50E+05	3.50E+05	3.50E+05	8.80E+07	5.20E+07	NA				
2-Methylnaphthalene	8260	<290	<280	<290	<280	<280	<300	840	<290	<270	<290	1,200	2,000	<290	<280	<280	NA	57,000	1.70E+05	4,200	5.50E+06	4.90E+06	1.80E+06	1.80E+06	1.80E+06	2.90E+08	2.60E+07	NA				
Lead	6010	<500	7,400	12,000	9,300	9,700	14,000	10,000	9,800	10,000	14,000	9,100	13,000	8,900	10,000	10,000	21,000	7.00E+05	7.00E+05	(G,X)	ID	NLV	NLV	NLV	NLV	4.40E+07	9.0E+5 (DD)	NA				

- = Floor sample
- = Sidewall sample
- = Exceeds Statewide Default Background Level
- = Exceeds Drinking Water Criteria
- = Exceeds Groundwater Surface Water Interface Protection Criteria

Table 4. 2009 Phase II Environmental Site Assessment Soil Sample Results

Sample ID	Date Analyzed	Analytical Method	B-11	B-12	B-13	B-14	Groundwater Protection					Indoor Air	Ambient Air (V)				Direct Contact	
			7/7/09	7/7/09	7/7/09	7/7/09	Statewide Default Background Levels	Residential Drinking Water Protection Criteria & RBSLs	Non-residential Drinking Water Protection Criteria & RBSLs	Groundwater Surface Water Interface Protection Criteria & RBSLs	Groundwater Contact Protection Criteria & RBSLs	Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs	Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation Criteria & RBSLs	Direct Contact Criteria & RBSLs	Soil Saturation Concentration Screening Levels
Sample Date			0.3-1.2'	3.5-4.5'	0.7-1.4'	0.7-2.0'												
Sample Depth (feet)			Grab	Grab	Grab	Grab												
Collection Method			(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Units																		
Arsenic	7/9/09	6010	5,700	7,500	4,300	<2,100	5,800	4,600	4,600	4,600	2.00E+06	NLV	NLV	NLV	NLV	9.10E+05	37,000	NA
Barium	7/9/09	6010	73,100	63,900	41,300	48,000	75,000	1.30E+06	1.30E+06	(G)	1.0E+9 (D)	NLV	NLV	NLV	NLV	1.50E+08	1.30E+08	NA
Cadmium	7/9/09	6010	<590	<610	<490	<520	1,200	6,000	6,000	(G,X)	2.30E+08	NLV	NLV	NLV	NLV	2.20E+06	2.10E+06	NA
Chromium, Total	7/9/09	6010	13,500	17,200	9,000	11,000	18,000 (total)	1.0E+9 (D)	1.0E+9 (D)	(G,X)	1.0E+9 (D)	NLV	NLV	NLV	NLV	1.50E+08	1.0E+9 (D)	NA
Copper	7/9/09	6010	19,800	16,000	21,400	4,900	32,000	5.80E+06	5.80E+06	(G)	1.0E+9 (D)	NLV	NLV	NLV	NLV	5.90E+07	7.30E+07	NA
Lead Coarse Fraction	7/14/09	6010	49,000	10,600	849,000	1,970	21,000	7.00E+05	7.00E+05	(G,X)	ID	NLV	NLV	NLV	NLV	4.40E+07	9.0E+5 (DD)	NA
Lead Fine Fraction	7/14/09	6010	73,000	17,400	237,000	2,700	21,000	7.00E+05	7.00E+05	(G,X)	ID	NLV	NLV	NLV	NLV	4.40E+07	9.0E+5 (DD)	NA
Lead Total (soil fraction)	7/15/09	6010	53,600	14,600	816,000	2,200	21,000	7.00E+05	7.00E+05	(G,X)	ID	NLV	NLV	NLV	NLV	4.40E+07	9.0E+5 (DD)	NA
Lead Total (MET ICP)	7/15/09	6010	73,100	18,100	149,000	3,800	21,000	7.00E+05	7.00E+05	(G,X)	ID	NLV	NLV	NLV	NLV	4.40E+07	9.0E+5 (DD)	NA
Mercury	7/13/09	7471	41	20	21	<11	130	1,700	1,700	50 (M); 1.2	47,000	89,000	62,000	62,000	62,000	8.80E+06	5.80E+05	NA
Selenium	7/9/09	6010	<2,400*	<2,400*	<1,900*	<2,100*	410	4,000	4,000	400	7.80E+07	NLV	NLV	NLV	NLV	5.90E+07	9.60E+06	NA
Silver	7/9/09	6010	<1,200*	<1,200*	<970*	<1,000*	1,000	4,500	13,000	100 (M); 27	2.00E+08	NLV	NLV	NLV	NLV	2.90E+06	9.00E+06	NA
Zinc	7/9/09	6010	136,000	44,400	63,000	18,400	47,000	2.40E+06	5.00E+06	(G)	1.0E+9 (D)	NLV	NLV	NLV	NLV	ID	6.30E+08	NA
Acenaphthene	7/10/09	8270	<40.3	<20.4	<36.3	<18.6	NA	3.00E+05	8.80E+05	8,700	9.70E+05	3.50E+08	9.70E+07	9.70E+07	9.70E+07	6.20E+09	1.30E+08	NA
Acenaphthylene	7/10/09	8270	47.1	<20.4	<36.3	<18.6	NA	5,900	17,000	ID	4.40E+05	3.00E+06	2.70E+06	2.70E+06	2.70E+06	1.00E+09	5.20E+06	NA
Anthracene	7/10/09	8270	48.2	<20.4	<36.3	<18.6	NA	41,000	41,000	ID	41,000	1.0E+9 (D)	1.60E+09	1.60E+09	1.60E+09	2.90E+10	7.30E+08	NA
Benzo[a]anthracene	7/10/09	8270	70.4	42.2	53.7	<18.6	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	80,000	NA
Benzo[a]pyrene	7/10/09	8270	77.7	73.5	52.2	<18.6	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	1.90E+06	8,000	NA
Benzo[b]fluoranthene	7/10/09	8270	<806	97	46.1	<18.6	NA	NLL	NLL	NLL	NLL	ID	ID	ID	ID	ID	80,000	NA
Benzo[g,h,i]perylene	7/10/09	8270	63.8	55.8	57.2	<18.6	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	3.50E+08	7.00E+06	NA
Benzo[k]fluoranthene	7/10/09	8270	<806	52.1	49.4	<18.6	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	8.00E+05	NA
Chrysene	7/10/09	8270	175	73.7	66.7	<18.6	NA	NLL	NLL	NLL	NLL	ID	ID	ID	ID	ID	8.00E+06	NA
Dibenzo[a,h]anthracene	7/10/09	8270	<40.3	<20.4	<36.3	<18.6	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	8,000	NA
Fluoranthene	7/10/09	8270	147	92.5	109	<18.6	NA	7.30E+05	7.30E+05	5,500	7.30E+05	1.0E+9 (D)	8.90E+08	8.80E+08	8.80E+08	4.10E+09	1.30E+08	NA
Fluorene	7/10/09	8270	<40.3	<20.4	<36.3	<18.6	NA	3.90E+05	8.90E+05	5,300	8.90E+05	1.0E+9 (D)	1.50E+08	1.50E+08	1.50E+08	4.10E+09	8.70E+07	NA
Indeno[1,2,3-cd]pyrene	7/10/09	8270	45.9	37.4	38.7	<18.6	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	80,000	NA
1-Methylnaphthalene	7/10/09	8270	222	<20.4	<36.3	<18.6	---	---	---	---	---	---	---	---	---	---	---	---
2-Methylnaphthalene	7/10/09	8270	304	22	42.3	<18.6	NA	57,000	1.70E+05	4,200	5.50E+06	4.90E+06	1.80E+06	1.80E+06	1.80E+06	2.90E+08	2.60E+07	NA
Naphthalene (8270)	7/10/09	8270	318	<20.4	<36.3	<18.6	NA	35,000	1.00E+05	730	2.10E+06	4.70E+05	3.50E+05	3.50E+05	3.50E+05	8.80E+07	5.20E+07	NA
Naphthalene (8260)	7/10/09	8270	<302	<306	<273	<279	NA	35,000	1.00E+05	730	2.10E+06	4.70E+05	3.50E+05	3.50E+05	3.50E+05	8.80E+07	5.20E+07	NA
Phenanthrene	7/10/09	8270	219	34.8	88.2	<18.6	NA	56,000	1.60E+05	2,100	1.10E+06	5.10E+06	1.90E+05	1.90E+05	1.90E+05	2.90E+06	5.20E+06	NA
Pyrene	7/10/09	8270	113	80.8	84.3	<18.6	NA	4.80E+05	4.80E+05	ID	4.80E+05	1.0E+9 (D)	7.80E+08	7.80E+08	7.80E+08	2.90E+09	8.40E+07	NA
Benzene	7/9/09	8260	<30.2	<30.6	151	<27.9	NA	100	100	4,000 (X)	2.20E+05	8,400	45,000	99,000	2.30E+05	4.70E+08	4.0E+5 (C)	4.00E+05
sec-Butylbenzene	7/9/09	8260	<60.4	<61.3	<54.5	<55.8	NA	1,600	4,600	ID	88,000	ID	ID	ID	ID	1.80E+08	8.00E+06	1.00E+07
Ethylbenzene	7/9/09	8260	41	<30.6	88	<27.9	NA	1,500	1,500	360	1.4E+5 (C)	1.4E+5 (C)	2.40E+06	3.10E+06	6.50E+06	1.30E+10	1.4E+5 (C)	1.40E+05
Toluene	7/9/09	8260	79	<61.3	117	<55.8	NA	16,000	16,000	5,400	2.5E+5 (C)	2.5E+5 (C)	3.30E+06	3.60E+07	3.60E+07	1.20E+10	2.5E+5 (C)	2.50E+05
Isopropyl benzene	7/9/09	8260	<60.4	<61.3	<54.5	<55.8	NA	91,000	2.60E+05	3,200	3.9E+5 (C)	3.9E+5 (C)	2.00E+06	2.00E+06	3.00E+06	2.60E+09	3.9E+5 (C)	3.90E+05
Isopropyl toluene	7/9/09	8260	<60.4	<61.3	<54.5	<55.8	---	---	---	---	---	---	---	---	---	---	---	---
n-Propyl benzene	7/9/09	8260	<60.4	<61.3	<54.5	<55.8	NA	1,600	4,600	ID	3.00E+05	ID	ID	ID	ID	5.90E+08	8.00E+06	1.00E+07

Table 4. 2009 Phase II Environmental Site Assessment Soil Sample Results

Sample ID	Date Analyzed	Analytical Method	B-11	B-12	B-13	B-14	Groundwater Protection					Indoor Air	Ambient Air (Y)			Direct Contact		
			7/7/09	7/7/09	7/7/09	7/7/09	Statewide Default Background Levels	Residential Drinking Water Protection Criteria & RBSLs	Non-residential Drinking Water Protection Criteria & RBSLs	Groundwater Surface Water Interface Protection Criteria & RBSLs	Groundwater Contact Protection Criteria & RBSLs	Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs	Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation Criteria & RBSLs	Direct Contact Criteria & RBSLs	Soil Saturation Concentration Screening Levels
Sample Date			0.3-1.2'	3.5-4.5'	0.7-1.4'	0.7-2.0'												
Sample Depth (feet)			Grab	Grab	Grab	Grab												
Collection Method			(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Units																		
Methyl-tert-butyl-ether	7/9/09	8260	<60.4	<61.3	316	<55.8	NA	800	800	1.4E+5 (X)	5.9E+6 (C)	5.9E+6 (C)	3.00E+07	4.10E+07	8.90E+07	8.80E+10	5.9E+6 (C)	5.90E+06
1,2,3-Trimethylbenzene	7/9/09	8260	<60.4	<61.3	69.4	<55.8	---	---	---	---	---	---	---	---	---	---	---	---
1,2,4-Trimethylbenzene	7/9/09	8260	137	<61.3	263	<55.8	NA	2,100	2,100	570	1.1E+5 (C)	1.1E+5 (C)	2.50E+07	6.00E+08	6.00E+08	3.60E+10	1.1E+5 (C)	1.10E+05
1,3,5-Trimethylbenzene	7/9/09	8260	<60.4	<61.3	90.3	<55.8	NA	1,800	1,800	1,100	94,000 (C)	94,000 (C)	1.90E+07	4.60E+08	4.60E+08	3.60E+10	94,000 (C)	94,000
Total Xylenes	7/9/09	8260	307	<91.9	1,060	<83.7	NA	5,600	5,600	820	1.5E+5 (C)	1.5E+5 (C)	5.40E+07	6.50E+07	1.30E+08	1.30E+11	1.5E+5 (C)	1.50E+05

* The detection limit is greater than the Statewide Default Background Level and the GSI Criteria

	= Exceeds Statewide Default Background Level
Bold	= Exceeds Drinking Water Criteria
	= Exceeds Groundwater Surface Water Interface Protection Criteria

Table 5. 2012 Phase III Environmental Site Assessment Soil Sample Results

Sample ID	Sample Date	Sample Depth (feet)	Collection Method	Units	Date Analyzed	Analytical Method	GP-1	GP-2	GP-3	GP-4	GP-5	GP-6	Statewide Default Background Levels	Groundwater Protection				Indoor Air	Ambient Air (Y)				Direct Contact	
							6/4/12	6/4/12	6/4/12	6/4/12	6/4/12	6/4/12		6/4/12	Residential Drinking Water Protection Criteria & RBSLs	Non-residential Drinking Water Protection Criteria & RBSLs	Groundwater Surface Water Interface Protection Criteria & RBSLs	Groundwater Contact Protection Criteria & RBSLs	Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs	Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation Criteria & RBSLs	Direct Contact Criteria & RBSLs
Mercury	6/11/12	7471A	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	130	1,700	1,700	50 (M); 1.2	47,000	89,000	62,000	62,000	62,000	8.80E+06	5.80E+05	NA
Arsenic	6/11/12	6010B	5,000	1,700	<1,000	1,600	1,400	4,900	5,800	4,600	4,600	4,600	5,800	4,600	4,600	4,600	2.00E+06	NLV	NLV	NLV	NLV	9.10E+05	37,000	NA
Barium	6/11/12	6010B	65,000	11,000	7,800	57,000	53,000	14,000	75,000	1.30E+06	1.30E+06	(G)	1.0E+9 (D)	NLV	NLV	NLV	NLV	NLV	NLV	NLV	1.50E+08	1.30E+08	NA	
Cadmium	6/11/12	6010B	500	<200	<200	670	450	220	1,200	6,000	6,000	(G,X)	2.30E+08	NLV	NLV	NLV	NLV	NLV	NLV	NLV	2.20E+06	2.10E+06	NA	
Chromium	6/11/12	6010B	18,000	5,600	5,000	13,000	13,000	6,200	18,000 (total)	1.0E+9 (D)	1.0E+9 (D)	(G,X)	1.0E+9 (D)	NLV	NLV	NLV	NLV	NLV	NLV	NLV	1.50E+08	1.0E+9 (D)	NA	
Copper	6/11/12	6010B	14,000	9,200	6,500	16,000	16,000	6,600	32,000	5.80E+06	5.80E+06	(G)	1.0E+9 (D)	NLV	NLV	NLV	NLV	NLV	NLV	NLV	5.90E+07	7.30E+07	NA	
Lead	6/11/12	6010B	8,300	6,000	3,600	20,000	12,000	1,000	21,000	7.00E+05	7.00E+05	(G,X)	ID	NLV	NLV	NLV	NLV	NLV	NLV	NLV	4.40E+07	9.0E+5 (DD)	NA	
Silver	6/11/12	6010B	<100	<100	<100	<100	<100	<100	1,000	4,500	13,000	100 (M); 27	2.00E+08	NLV	NLV	NLV	NLV	NLV	NLV	NLV	2.90E+06	9.00E+06	NA	
Zinc	6/11/12	6010B	51,000	2,600	20,000	49,000	47,000	35,000	47,000	2.40E+06	5.00E+06	(G)	1.0E+9 (D)	NLV	NLV	NLV	NLV	NLV	NLV	NLV	ID	6.30E+08	NA	
Selenium	6/11/12	7742	220	<200	<200	560	470	<200	410	4,000	4,000	400	7.80E+07	NLV	NLV	NLV	NLV	NLV	NLV	NLV	5.90E+07	9.60E+06	NA	
Acenaphthene	6/8/12	8270C	<330	<330	<330	<330	<330	<330	NA	3.00E+05	8.80E+05	8,700	9.70E+05	3.50E+08	9.70E+07	9.70E+07	9.70E+07	9.70E+07	9.70E+07	6.20E+09	1.30E+08	NA		
Acenaphthylene	6/8/12	8270C	<330	<330	<330	<330	<330	<330	NA	5,900	17,000	ID	4.40E+05	3.00E+06	2.70E+06	2.70E+06	2.70E+06	2.70E+06	2.70E+06	1.00E+09	5.20E+06	NA		
Anthracene	6/8/12	8270C	<330	<330	<330	<330	<330	<330	NA	41,000	41,000	ID	41,000	1.0E+9 (D)	1.60E+09	1.60E+09	1.60E+09	1.60E+09	1.60E+09	2.90E+10	7.30E+08	NA		
Benzo(a)anthracene	6/8/12	8270C	<330	<330	<330	<330	<330	<330	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	NLV	NLV	ID	80,000	NA		
Benzo (a) pyrene	6/8/12	8270C	<330	<330	<330	<330	<330	<330	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	NLV	NLV	1.90E+06	8,000	NA		
Benzo (b) fluoranthene	6/8/12	8270C	<330	<330	<330	<330	<330	<330	NA	NLL	NLL	NLL	NLL	ID	ID	ID	ID	ID	ID	ID	80,000	NA		
Benzo (g, h, i) perylene	6/8/12	8270C	<330	<330	<330	<330	<330	<330	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	NLV	NLV	3.50E+08	7.00E+06	NA		
Benzo (k) fluoranthene	6/8/12	8270C	<330	<330	<330	<330	<330	<330	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	NLV	NLV	ID	8.00E+05	NA		
Chrysene	6/8/12	8270C	<330	<330	<330	<330	<330	<330	NA	NLL	NLL	NLL	NLL	ID	ID	ID	ID	ID	ID	ID	8.00E+06	NA		
Dibenzo (a,h) anthracene	6/8/12	8270C	<330	<330	<330	<330	<330	<330	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	NLV	NLV	ID	8,000	NA		
Fluoranthene	6/8/12	8270C	<330	<330	<330	<330	400	<330	NA	7.30E+05	7.30E+05	5,500	7.30E+05	1.0E+9 (D)	8.90E+08	8.80E+08	8.80E+08	8.80E+08	4.10E+09	1.30E+08	NA			
Fluorene	6/8/12	8270C	<330	<330	<330	<330	<330	<330	NA	3.90E+05	8.90E+05	5,300	8.90E+05	1.0E+9 (D)	1.50E+08	1.50E+08	1.50E+08	1.50E+08	4.10E+09	8.70E+07	NA			
Indeno (1,2,3-cd) pyrene	6/8/12	8270C	<330	<330	<330	<330	<330	<330	NA	NLL	NLL	NLL	NLL	NLV	NLV	NLV	NLV	NLV	NLV	ID	80,000	NA		
Naphthalene	6/8/12	8270C	<330	<330	<330	<330	<330	<330	NA	35,000	1.00E+05	730	2.10E+06	4.70E+05	3.50E+05	3.50E+05	3.50E+05	3.50E+05	8.80E+07	5.20E+07	NA			
Phenanthrene	6/8/12	8270C	<330	<330	<330	<330	<330	<330	NA	56,000	1.60E+05	2,100	1.10E+06	5.10E+06	1.90E+05	1.90E+05	1.90E+05	1.90E+05	2.90E+06	5.20E+06	NA			
Pyrene	6/8/12	8270C	<330	<330	<330	<330	330	<330	NA	4.80E+05	4.80E+05	ID	4.80E+05	1.0E+9 (D)	7.80E+08	7.80E+08	7.80E+08	2.90E+09	8.40E+07	NA				
1,1,1-Trichloroethane	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	4,000	4,000	1,800	4.6E+5 (C)	4.60E+05	4.50E+06	1.50E+07	3.10E+07	2.90E+10	4.6E+5 (C)	4.60E+05	NA			
1,1,2,2-Tetrachloroethane	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	170	700	1,600 (X)	94,000	23,000	34,000	34,000	34,000	34,000	6.80E+07	2.40E+05	8.70E+05			
1,1,2-Trichloroethane	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	100	100	6,600 (X)	4.20E+05	24,000	57,000	57,000	1.20E+05	2.50E+08	8.40E+05	9.20E+05				
1,1-Dichloroethane	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	18,000	50,000	15,000	8.9E+5 (C)	4.30E+05	2.50E+06	6.00E+06	1.40E+07	1.50E+10	8.9E+5 (C)	8.90E+05				
1,1-Dichloroethene	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	140	140	2,600	2.20E+05	330	3,700	15,000	37,000	7.80E+07	5.7E+5 (C)	5.70E+05				
1,2,4-Trimethylbenzene	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	2,100	2,100	570	1.1E+5 (C)	1.1E+5 (C)	2.50E+07	6.00E+08	6.00E+08	3.60E+10	1.1E+5 (C)	1.10E+05				
1,2-Dibromoethane	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	1,600	4,600	NA	2.0E+6 (C)	ID	ID	ID	ID	ID	ID	2.0E+6 (C)	2.00E+06			
1,2-Dichlorobenzene	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	14,000	14,000	280	2.1E+5 (C)	2.1E+5 (C)	4.60E+07	4.60E+07	5.50E+07	4.40E+10	2.1E+5 (C)	2.10E+05				
1,2-Dichloroethane	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	18,000	50,000	15,000	8.9E+5 (C)	4.30E+05	2.50E+06	6.00E+06	1.40E+07	1.50E+10	8.9E+5 (C)	8.90E+05				
1,2-Dichloropropane	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	100	100	4,600 (X)	3.20E+05	7,400	30,000	51,000	1.20E+05	1.20E+08	5.5E+5 (C)	5.50E+05				
1,3,5-Trimethylbenzene	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	1,800	1,800	1,100	94,000 (C)	94,000 (C)	1.90E+07	4.60E+08	4.60E+08	3.60E+10	94,000 (C)	94,000				
1,3-Dichlorobenzene	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	170	480	680	51,000	48,000	94,000	94,000	1.10E+05	8.80E+07	1.7E+5 (C)	1.70E+05				
1,4-Dichlorobenzene	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	1,700	1,700	360	1.40E+05	1.00E+05	2.60E+05	2.60E+05	3.40E+05	5.70E+08	1.90E+06	NA				
Benzene	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	100	100	4,000 (X)	2.20E+05	8,400	45,000	99,000	2.30E+05	4.70E+08	4.0E+5 (C)	4.00E+05				
Bromodichloromethane	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	1,600 (W)	1,600 (W)	ID	2.80E+05	6,400	31,000	31,000	57,000	1.10E+08	4.90E+05	1.50E+06				
Bromoform	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	1,600 (W)	1,600 (W)	ID	8.7E+5 (C)	7.70E+05	3.10E+06	3.10E+06	3.10E+06	3.60E+09	8.7E+5 (C)	8.70E+05				

Table 5. 2012 Phase III Environmental Site Assessment Soil Sample Results

Sample ID	Date Analyzed	Analytical Method	GP-1	GP-2	GP-3	GP-4	GP-5	GP-6	Statewide Default Background Levels	Groundwater Protection				Indoor Air	Ambient Air (Y)				Direct Contact	
			6/4/12	6/4/12	6/4/12	6/4/12	6/4/12	6/4/12		6/4/12	6/4/12	Residential Drinking Water Protection Criteria & RBSLs	Non-residential Drinking Water Protection Criteria & RBSLs	Groundwater Surface Water Interface Protection Criteria & RBSLs	Groundwater Contact Protection Criteria & RBSLs	Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs	Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation Criteria & RBSLs
Sample Date			0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	2.5-3.5												
Sample Depth (feet)			0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	2.5-3.5												
Collection Method			Grab	Grab	Grab	Grab	Grab	Grab												
Units			(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)												
Bromomethane	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	200	580	700	1.40E+06	1,600	13,000	57,000	1.40E+05	1.50E+08	1.00E+06	2.20E+06
Carbon tetrachloride	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	100	100	900 (X)	92,000	990	12,000	34,000	79,000	1.70E+08	3.9E+5 (C)	3.90E+05
Chlorobenzene	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	2,000	2,000	500	2.6E+5 (C)	2.20E+05	9.20E+05	1.10E+06	2.10E+06	2.10E+09	2.6E+5 (C)	2.60E+05
Chloroethane	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	8,600	34,000	22,000 (X)	9.5E+5 (C)	9.5E+5 (C)	3.60E+07	1.20E+08	2.80E+08	2.90E+11	9.5E+5 (C)	9.50E+05
Chloroform	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	1,600 (W)	1,600 (W)	7,000	1.5E+6 (C)	38,000	1.50E+05	3.40E+05	7.90E+05	1.60E+09	1.5E+6 (C)	1.50E+06
Chloromethane	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	5,200	22,000	ID	1.1E+6 (C)	10,000	1.20E+05	1.00E+06	2.50E+06	2.60E+09	1.1E+6 (C)	1.10E+06
cis-1,2-Dichloroethene	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	1,400	1,400	12,000	6.4E+5 (C)	41,000	2.10E+05	4.30E+05	1.00E+06	1.00E+09	6.4E+5 (C)	6.40E+05
cis-1,3-Dichloropropene	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	170	700	180 (X)	1.10E+05	5,400	60,000	2.00E+05	4.70E+05	5.90E+08	2.40E+05	6.20E+05
Dibromochloromethane	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	1,600 (W)	1,600 (W)	ID	3.60E+05	21,000	80,000	80,000	98,000	1.60E+08	5.00E+05	6.10E+05
Ethylbenzene	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	1,500	1,500	360	1.4E+5 (C)	1.4E+5 (C)	2.40E+06	3.10E+06	6.50E+06	1.30E+10	1.4E+5 (C)	1.40E+05
m,p-Xylene	6/6/12	8260B	<100	<100	<100	<100	<100	<100	NA	5,600	5,600	820	1.5E+5 (C)	1.5E+5 (C)	5.40E+07	6.50E+07	1.30E+08	1.30E+11	1.5E+5 (C)	1.50E+05
Methyl tert-butyl ether	6/6/12	8260B	<250	<250	<250	<250	<250	<250	NA	800	800	1.4E+5 (X)	5.9E+6 (C)	5.9E+6 (C)	3.00E+07	4.10E+07	8.90E+07	8.80E+10	5.9E+6 (C)	5.90E+06
Methylene chloride	6/6/12	8260B	<100	<100	<100	<100	<100	<100	NA	100	100	30,000 (X)	2.3E+6 (C)	2.40E+05	7.00E+05	1.70E+06	4.00E+06	8.30E+09	2.3E+6 (C)	2.30E+06
o-Xylene	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	5,600	5,600	820	1.5E+5 (C)	1.5E+5 (C)	5.40E+07	6.50E+07	1.30E+08	1.30E+11	1.5E+5 (C)	1.50E+05
Tetrachloroethene	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	100	100	1,200 (X)	88,000 (C)	60,000	6.00E+05	1.40E+06	3.30E+06	6.80E+09	88,000 (C)	88,000
Toluene	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	16,000	16,000	5,400	2.5E+5 (C)	2.5E+5 (C)	3.30E+06	3.60E+07	3.60E+07	1.20E+10	2.5E+5 (C)	2.50E+05
trans-1,2-Dichloroethene	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	2,000	2,000	30,000 (X)	1.4E+6 (C)	43,000	3.30E+05	8.40E+05	2.00E+06	2.10E+09	1.4E+6 (C)	1.40E+06
trans-1,3-Dichloropropene	6/6/12	8260B	<50	<50	<50	<50	<50	<50	---	---	---	---	---	---	---	---	---	---	---	---
Trichloroethene	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	100	100	4,000 (X)	4.40E+05	37,000	2.60E+05	4.40E+05	1.10E+06	2.30E+09	5.0E+5 (C,DD)	5.00E+05
Trichlorofluoromethane	6/6/12	8260B	<50	<50	<50	<50	<50	<50	NA	52,000	1.50E+05	NA	5.6E+5 (C)	5.6E+5 (C)	1.10E+08	1.40E+11	1.40E+11	1.70E+12	5.6E+5 (C)	5.60E+05
Vinyl chloride	6/6/12	8260B	<40	<40	<40	<40	<40	<40	NA	40	40	260 (X)	20,000	2,800	29,000	1.70E+05	4.20E+05	8.90E+08	34,000	4.90E+05

 = Exceeds Statewide Default Background Level
 = Exceeds Drinking Water Criteria
 = Exceeds Groundwater Surface Water Interface Protection Criteria

Table 6. 2003 Excavation Groundwater Sample Results

<i>Sample ID</i>	<i>Analytical Method</i>	WS-1	Residential Drinking Water Criteria & RBSLs	Non-residential Drinking Water Criteria & RBSLs	Groundwater Surface Water Interface Criteria & RBSLs	Residential Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs	Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs	Groundwater Contact Criteria & RBSLs	Water Solubility	Flammability and Explosivity Screening Level	Acute Inhalation Screening Level
<i>Sample Date</i>		7/23/03									
<i>Sample Depth (feet)</i>		12									
<i>Date Analyzed</i>		7/30/03									
<i>Collection Method</i>		Grab									
<i>Units</i>	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	
Benzene	8260	4,500	5.0 (A)	5.0 (A)	200 (X)	5,600	35,000	11,000	1.75E+06	68,000	67,000
Toluene	8260	3,500	790 (E)	790 (E)	270	5.3E+5 (S)	5.3E+5 (S)	5.3E+5 (S)	5.26E+05	61,000	ID
Ethylbenzene	8260	1,300	74 (E)	74 (E)	18	1.10E+05	1.7E+5 (S)	1.7E+5 (S)	1.69E+05	43,000	1.7E+5 (S)
Xylene	8260	9,800	280 (E)	280 (E)	41	1.9E+5 (S)	1.9E+5 (S)	1.9E+5 (S)	1.86E+05	70,000	1.9E+5 (S)
1,2,4-Trimethylbenzene	8260	3,400	63 (E)	63 (E)	17	56,000 (S)	56,000 (S)	56,000 (S)	55,890	56,000 (S)	ID
1,3,5-Trimethylbenzene	8260	990	72 (E)	72 (E)	45	61,000 (S)	61,000 (S)	61,000 (S)	61,150	ID	ID
Methyl tert-butyl ether	8260	600	40 (E)	40 (E)	7,100 (X)	4.7E+7 (S)	4.7E+7 (S)	6.10E+05	4.68E+07	ID	ID
1,2-Dibromoethane	8260	<1.0	80	230	NA	ID	ID	5.30E+05	1.10E+07	ID	ID
1,2-Dichloroethane	8260	<1.0	5.0 (A)	5.0 (A)	360 (X)	9,600	59,000	19,000	8.52E+06	2.50E+06	ID
Naphthalene	8260	730	520	1,500	11	31,000 (S)	31,000 (S)	31,000 (S)	31,000	NA	31,000 (S)
2-Methylnaphthalene	8260	360	260	750	19	25,000 (S)	25,000 (S)	25,000 (S)	24,600	ID	ID
Lead	6020	1.5	4.0 (L)	4.0 (L)	(G,X)	NLV	NLV	ID	NA	ID	ID

Bold	= Exceeds Drinking Water Criteria
Red Box	= Exceeds Groundwater Surface Water Interface Protection Criteria

APPENDIX A

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY


STATUS REPORT

MARCH 5, 2004

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE COMMUNICATION

March 5, 2004

TO: Sharon Picard, Funding and Support Unit, RRD
CC: Steven Kitler, EQM, RRD
FROM: Pewu Bah-deh, RRD 
SUBJECT: Status of State Fairgrounds UST Removal Project
1120 W. State Fair, Detroit, Michigan

Per your request, the following site update for the subject site is being submitted to you.

BACKGROUND

The DEQ was contacted in early May, 2003 regarding the release of petroleum products from 2 underground storage tanks (USTs) at the subject site. The DEQ, Detroit Fire Department, and HAZMAT team responded by removing approximately 2,400 gallons of product from the USTs to abate the immediate hazard.

Subsequently, Tetra Tech NUS, Inc., (Tetra) was contracted by the DEQ to provide site investigation and remediation services to reduce the acute risk level.

CORRECTIVE ACTION TO DATE

The project Scope of Work did not call for a complete site investigation and remediation, therefore, Tetra conducted a limited response activity. Tetra/subcontractor excavated the 2 USTs, piping, and contaminated soil (about 300 cubic yards) and disposed of them at appropriate landfill/disposal site. A Projection Completion Report has been submitted to the DEQ, reviewed, and approved.

ADDITIONAL CORRECTIVE ACTIONS NEEDED

The site still contains levels of contaminant concentrations high enough to prevent closure in accordance with Risk-Based Corrective Action (RBCA). The responsible party for the site needs to retain a State approved Underground Storage Tank Qualified Consultant, to perform a complete corrective action in accordance with RBCA. Cost of the additional investigation and cleanup could be approximately **\$20,000.00**.

FUTURE USE OF THE SITE

The site is part of the State Fairgrounds parcel. The area is currently used as a parking facility and its known future use is to remain a parking facility. Per discussion with the Assistant General Manager of the facility, there are no definite plans for further redevelopment of the site. However, the Manager indicated that the Michigan Department of Transportation has shown interest in acquiring use of the facility at some future time. He also stated that METRO PARK has indicated some interest in future use of the site. In either case, the use is likely to remain a parking facility.

APPENDIX B
CONFIRMED RELEASE REPORT



Facility No : 00009795

Leak ID # : C - 0187-03

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
STORAGE TANK DIVISION
District : SE Michigan District Office

Page : Page 1 of 13

Date : 05/30/2003

**Confirmed Release Report
FROM 5/6/2003 TO 5/30/2003**

Owner Information

MDA - State of Michigan
Attn: David Nederlander
1120 W State Fair
Detroit
Wayne
MI USA
48203

Owner Phone # : 517-369-8231
Contact :

Location of Tanks

Department of Agriculture
1120 W State Fair
MI 48203 - 1040

County : Wayne
City : Detroit

Robert

Release Discovery Details :

Release Type Discovered	Discovery Date
Confirmed Release	5/9/03 12:00:00AM

- NEW Release
- PREVIOUS Release
- FILE NAME CORRECT? (if not, PLEASE INDICATE CHANGE at top).

Tank Information and Product Released :

Tank ID	Capacity	Substance Released
5	2,000	Gasoline
6	2,000	Gasoline

Date / Time Released Reported : 05/09/2003 , 3:30PM

Comments :

Contact Person at the Department of Agriculture: Tim Jenkins, Phone: 313-369-8231

Reporting Party Information :

Robert Fields
State Official
DEQ-RRD
313-456-4671



APPENDIX C
UNDERGROUND STORAGE TANK REGISTRATION



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY – WASTE AND HAZARDOUS MATERIALS DIVISION
PO BOX 30157, LANSING, MI 48909-7657

REGISTRATION OF UNDERGROUND STORAGE TANKS

The information in this form is required under "Part 211, Underground Storage Tank Regulations, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended." Any owner who knowingly fails to notify or submits false information shall be subject to a misdemeanor and/or civil penalties not to exceed \$5,000 per day for each

<input type="checkbox"/> NEW REGISTRATION		FACILITY IDENTIFICATION NUMBER (if known)	
<input checked="" type="checkbox"/> AMENDED INFORMATION (for Registered USTs Only)		00009795	
NO. OF TANKS AT FACILITY	2	NO. OF CONTINUATION SHEETS ATTACHED	0
I. OWNERSHIP OF TANKS		II. LOCATION OF TANKS	
IF THIS IS A NEW OWNER'S ADDRESS, PLEASE CHECK <input type="checkbox"/>		IF INFORMATION IS THE SAME AS SECTION I, PLEASE CHECK <input checked="" type="checkbox"/>	
OWNER NAME (Corporation/Individual, etc.) STATE OF MICHIGAN DEPARTMENT OF AGRICULTURE		FACILITY NAME OR SITE IDENTIFIER DEPARTMENT OF AGRICULTURE STATE FAIR GROUNDS	
MAILING ADDRESS 1120 WEST STATE FAIR		STREET ADDRESS (P.O. Box Not Acceptable)	
CITY DETROIT	STATE MI	ZIP 48203	CITY Michigan
COUNTRY (Please Specify) <input checked="" type="checkbox"/> USA <input type="checkbox"/> OTHER _____		COUNTY WAYNE	
TELEPHONE (Including Area Code) (313) 369 - 8231		TELEPHONE (Including Area Code) () -	
TAX PAYER ID OR SOCIAL SECURITY NUMBER 38-6000134			
LATITUDE AND LONGITUDE of facility (If known) LATITUDE (North): _____ LONGITUDE (West): _____			
III. TYPE OF OWNER			
<input type="checkbox"/> FEDERAL		<input type="checkbox"/> COMMERCIAL	
<input checked="" type="checkbox"/> STATE GOVERNMENT		<input type="checkbox"/> PRIVATE	
<input type="checkbox"/> LOCAL GOVERNMENT		ARE TANKS LOCATED ON LAND WITHIN A RESERVATION? <input type="checkbox"/> YES <input type="checkbox"/> NO	
IF TANKS ARE LOCATED WITHIN A RESERVATION, DOES A NATIVE AMERICAN TRIBE OWN TANKS? <input type="checkbox"/> YES <input type="checkbox"/> NO			
IF TANKS ARE OWNED BY A TRIBE, NAME OF TRIBE: _____			
IV. TYPE OF FACILITY			
<input type="checkbox"/> PUBLIC GAS STATION	<input type="checkbox"/> LOCAL GOVERNMENT	<input type="checkbox"/> CONTRACTOR	
<input type="checkbox"/> PRIVATE GAS STATION	<input checked="" type="checkbox"/> STATE GOVERNMENT	<input type="checkbox"/> TRUCKING/TRANSPORT	
<input type="checkbox"/> MARINE GAS STATION	<input type="checkbox"/> FEDERAL/NON-MILITARY	<input type="checkbox"/> UTILITIES	
<input type="checkbox"/> PETROLEUM DISTRIBUTOR	<input type="checkbox"/> FEDERAL-MILITARY	<input type="checkbox"/> RESIDENTIAL	
<input type="checkbox"/> AIRLINE AND/OR AIRCRAFT OWNER	<input type="checkbox"/> COMMERCIAL	<input type="checkbox"/> FARM	
<input type="checkbox"/> AUTO DEALERSHIP	<input type="checkbox"/> INDUSTRIAL	<input type="checkbox"/> OTHER (Explain) _____	
<input type="checkbox"/> RAILROAD	<input type="checkbox"/> HOSPITAL		
V. CONTACT PERSON			
NAME PEWU BAH-DEH	JOB TITLE MDEQ PROJECT MANAGER	TELEPHONE (Including Area Code) (313) 456 - 4673	
VI. FINANCIAL RESPONSIBILITY			
I HAVE MET THE FINANCIAL RESPONSIBILITY REQUIREMENTS AS REQUIRED IN THE MICHIGAN UNDERGROUND STORAGE TANK RULES (MUSTR) (Check All Items Below That Apply)			
<input type="checkbox"/> SELF INSURANCE	<input type="checkbox"/> GUARANTEE	<input type="checkbox"/> TRUST FUND	
<input type="checkbox"/> COMMERCIAL INSURANCE	<input type="checkbox"/> SURETY BOND		
<input type="checkbox"/> RISK RETENTION GROUP	<input type="checkbox"/> LETTER OF CREDIT		
VII. CERTIFICATION			
I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS FORM AND ALL ATTACHED DOCUMENTS AND THAT I HAVE VERIFIED THAT THE INFORMATION IS TRUE, ACCURATE, AND COMPLETE.			
NAME AND OFFICIAL TITLE OF OWNER OR OWNERS' AUTHORIZED REPRESENTATIVE		SIGNATURE	DATE