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August 23, 2016

Mr. Andrew Malsom
Wisconsin Department of Transportation
141 NW Barstow Street
Waukesha, WI 53187

Subject: Underground Storage Tank Removal
STH 38 (Northwestern Avenue), Golf Avenue to Memorial Drive,
Racine, Racine County, Wisconsin
WisDOT Project ID #2290-17-70, BRRTS# 02-52-549890
TRC Project #243216.0000.0000

Dear Mr. Malsom:

Enclosed is the UST Abandonment Report for the STH 38 (Northwestern Avenue) reconstruction project located in Racine, Racine County, Wisconsin. Two tanks were encountered during the reconstruction project within the WisDOT ROW at the northern quadrant of the State St. and Spring St. intersection. Residual soil contamination remains on-site and is likely related to a former release of petroleum material from the tanks, in addition to the known benzene contamination in the area (BRRTS# 02-52-549890).

Please contact me at 262-901-2142 with any questions or comments.

Sincerely,

TRC Environmental Corporation

Tyler Stapel, P.E.
Project Engineer

cc: WDNr UST Closure Assessments (hard copy and pdf on CD)
Alice Egan – WDNr (hard copy and pdf on CD)
Shar TeBeest – WisDOT (hard copy and pdf on CD)
Jim Morse – TRC



Underground Storage Tank Removal

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WDNR BRRTS #02-52-549890

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August 2016

Lydia Auner
Project Scientist

Tyler Stapel, P.E.
Project Manager

James E. Morse
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Commonly Used Abbreviations and Acronyms

AST	aboveground storage tank
bgs	below ground surface
BRRTS	Bureau for Remediation and Redevelopment Tracking System
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CTH	County Trunk Highway
CY	cubic yards
DATCP	Department of Agriculture, Trade and Consumer Protection
DRO	diesel range organics
FDM	Facilities Development Manual
EMP	Excavation Management Plan
ERP	Environmental Repair Program
ES	Enforcement Standards
ESA	Environmental Site Assessment
FINDS	Facility Index System/Facility Identification Initiative Program Summary Report
GIS Registry	WDNR Geographic Information System (GIS) Registry of Closed Remediation Sites
GRO	gasoline range organics
HAZWOPER	Code of Federal Registry Chapter 29 (29 CFR) Part 1910.120 Hazardous Waste Operations and Emergency Response
HMA	Hazardous Materials Assessment
IH	Interstate Highway
LQG	large quantity generator
LUST	leaking underground storage tank
NPL	National Priorities List
NR ###	Wisconsin Administrative Code (WAC) Natural Resources (NR) Chapter ###
PAHs	polynuclear aromatic hydrocarbons
PAL	Preventive Action Limits
PCBs	polychlorinated biphenyls
PCE	perchloroethylene/tetrachloroethylene
PID	photoionization detector
PVOCs	petroleum volatile organic compounds
RCLs	Residual Contaminant Levels in NR 720
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation and Recovery Information System
R/W or ROW	right-of-way
sf	square feet
STH	State Trunk Highway
TCE	trichloroethylene
TRIS	Toxic Chemical Release Inventory System
USGS	United States Geological Survey
USH	United States Highway
UST	underground storage tank
VOCs	volatile organic compounds
WDNR	Wisconsin Department of Natural Resources
WisDOT	Wisconsin Department of Transportation
WGNHS	Wisconsin Geological and Natural History Survey
WI ERP	Wisconsin Environmental Repair Program database

Executive Summary

The WisDOT is in the process of reconstructing STH 38 (Northwestern Ave.) from Golf Ave. to Memorial Dr. in Racine, Racine County, WI, WisDOT ID #2290-17-70. In July of 2013, TRC completed a Phase 2.5 Investigation that identified benzene-contaminated soil north of the intersection of STH 38 and Spring St. As part of the reconstruction project, soil was excavated at this location for the installation of a storm sewer. On May 3, 2016, while grading in the area of benzene contamination, two previously unidentified USTs were uncovered within the WisDOT ROW.

Both tanks were found adjacent to the One-Hour Martinizing property at 1730 State Street, which is identified as BRRTS No. 02-52-549890. The location of the former USTs is not identified in the WDNR BRRTS database. Additionally, no tanks are listed for the property in the online DATCP storage tank database. The USTs were found to be in poor condition, with holes and rust deterioration. There was approximately 2 feet of water in each tank.

On May 5, TRC and its subcontractor SGS Environmental Contracting, LLC (SGS) were on site to clean and remove the USTs.

On May 6, TRC and SGS returned to the site to excavate soil immediately surrounding the previous location of the USTs. Two loads of soil totaling 42.93 tons were excavated from the area. Following the removal of the soil, samples were collected from the excavation sidewalls and bottom. Strong petroleum odors and high PID readings were noted in each soil sample. Samples were submitted for laboratory analysis of VOCs and RCRA Metals. Groundwater was not encountered during the UST removal.

The analytical results confirmed petroleum-contaminated soil present throughout the former UST cavity. Arsenic was found in exceedance of the WDNR NR 720 RCL for industrial direct contact in one sample. Naphthalene was found in exceedance of the WDNR NR 720 RCLs for non-industrial direct contact in one sample. There were no other direct contact pathway RCL exceedances.

The tank conditions, combined with evidence of contamination in the surrounding soil, indicate that the contamination likely originated from the tanks. A release has been reported to the WDNR. TRC recommends that no further investigation or remediation be completed by the WisDOT.

Because roadway construction is occurring near the former USTs, contractors for the STH 38 Northwestern Avenue reconstruction project have been made aware of the location of residual soil contamination at this site.

Section 1

Introduction

1.1 Background

The WisDOT is in the process of reconstructing STH 38 (Northwestern Ave.) from Golf Ave. to Memorial Dr. in Racine, Racine County, WI, WisDOT ID #2290-17-70. As part of the reconstruction project, soil was excavated for the installation of a storm sewer in an area of known benzene contamination adjacent to the One-Hour Martinizing property. On May 3, 2016, while grading in the area of benzene contamination, two USTs were uncovered in the WisDOT ROW by Buteyn-Peterson Construction Co., Inc., the contractor on-site for grading and sewer installation. See Figures 1 and 2 for the project location and a site map.

The One-Hour Martinizing dry cleaning facility, adjacent to the area excavated for the storm sewer installation, is listed with BRRTS as being under an ERP (BRRTS #02-52-549890). TRC reviewed the DATCP storage tank database and the Phase 1 HMA for the project. Information presented in the DATCP database indicated that no tanks have been registered to the property. The WDNR BRRTS information and RR Site maps are included in Appendix A.

The Phase 1 HMA identified the property as having hazardous materials concerns. As a result, a Phase 2.5 Investigation was completed in July 2013 to determine the extent of soil contamination. During this investigation, benzene-contaminated soil was identified to the north of STH 38 Northwestern Avenue, between Station 129+15 and 130+15, from reference line to project limits right, from approximately 6 to at least 11 feet bgs. The scope of the investigation did not include searching for or locating former tanks. Phase 1 information for the property is included in Appendix B.

On May 6, 2015, TRC and its subcontractor, SGS of Merrill, Wisconsin, were on-site to abandon the USTs and any associated piping.

TRC's subcontractor and site personnel for this project were as follows:

SGS Environmental Contracting, LLC
N2570 Daytona Drive
Merrill, Wisconsin 54452
(715) 539-2803
WI LUST Remover/Cleaner Cert. George Frick (#42191)

Tyler Stapel, P.E.
TRC Environmental Corp.
150 N. Patrick Blvd., Ste. 180
Brookfield, WI, 53045
(262) 901-2142
Wisconsin Site Assessor Cert. #1138565

1.2 Purpose and Scope

The purpose of this report is to document the abandonment and removal of the USTs and associated piping from within the WisDOT ROW adjacent to 1730 State St. in Racine, Wisconsin. This report has been prepared in conformance with the Wisconsin Administrative Code, Chapter ATCP 93 "Flammable, Combustible, and Hazardous Liquids."

Section 2

Description of the Site Activities

On May 3, 2016, while grading in the area of benzene contamination, two USTs were uncovered in the WisDOT ROW by Buteyn-Peterson Construction Co., Inc., the contractor on-site for grading and sewer installation. TRC was notified and immediately began planning for the removal of the tanks.

On May 5, 2016, TRC and SGS mobilized to the site to empty, purge, clean, remove, and dispose of the USTs in accordance with the Wisconsin Administrative Code, Chapter ATCP 93 “Flammable, Combustible and Hazardous Liquids.” A photographic log of the onsite work is included in Appendix C.

The USTs were located on the WisDOT ROW, to the north of STH 38 and adjacent to the One-Hour Martinizing dry cleaning facility at 1730 State Street. The USTs were oriented perpendicular to STH 38 Northwestern Avenue.

Both USTs were 1,000 gallons in capacity, and were constructed of single-wall steel. When the tanks were exposed, approximately 2 feet of water was found inside each tank. After SGS monitored the inner tank atmosphere and found it to be non-combustible, the top of the tanks were cut open. A total of approximately 1,000 gallons of water was then pumped out by a vacuum truck by Chief Environmental (Chief). Following the removal of the tank contents, the tanks were cleaned and removed from the ground with a backhoe. Tank sludge and residual cleaning liquids were containerized for disposal by Veolia under the State disposal contract. Groundwater was not encountered during the removal. Disposal documentation for the tank contents and the tank is included in Appendix D. The tank closure checklists and tank inventory record are provided in Appendix E.

After removal of the tanks, TRC inspected the condition for holes or other signs of deterioration. Several small (cm-size) holes were found on both tanks. Staining, petroleum odors, and elevated PID results indicated that the soil surrounding the tanks was contaminated.

On May 6, TRC and SGS returned to the site to remove contaminated soil from the immediate area surrounding the tanks. Two loads of soil totaling 42.93 tons were excavated. The soil excavation extent was limited by the presence of a monitoring well to the northwest, private property to the northeast, and a storm sewer manhole and fiber optic cable to the southwest. The excavated tank cavity was approximately 20' long and 12' wide. In general, the soil surrounding the tank consisted of a sandy clay. Following the removal of the soil, a total of

14 samples were collected from the excavation sidewalls and bottom. During field screening of the soil samples with a PID, petroleum odors were noted and PID detections ranged from 59.4 to 1900 Instrument Units. Documentation of the soil disposal is included in Appendix F.

Eight sidewall samples were collected 6" to 12" into the excavation wall at an elevation approximately equivalent to the middle of the tanks, or roughly 3 feet bgs. Two samples were taken on each edge of the excavation boundary: four samples were taken in line with the tanks at each tank end, and four samples were taken along the sides of the tanks. Six bottom samples were collected at the bottom of the excavation, or roughly 8 feet bgs. The locations of the soil samples are depicted on Figure 3.

The 14 soil samples were submitted for laboratory analysis of VOCs and RCRA Metals. The analytical results of the soil sampling indicated petroleum soil contamination was present within the entire UST cavity, except along the southwestern sidewall (samples SW 1 and SW 2). Naphthalene was the only VOC analytic to exceed the NR 720 RCL for non-industrial direct contact. Multiple VOCs were found to exceed the NR 720 RCL for the groundwater pathway. Arsenic was the only metals analytic to exceed the NR 720 RCL for the industrial direct contact pathway. Cadmium and selenium each had one exceedance of the groundwater pathway RCL that was also above the limit of quantification. Soil sample results are summarized in Table 1. The laboratory analytical report is provided in Appendix G.

The laboratory data was used to determine if the cumulative concentrations exceeded Hazard Index and Cancer Risk values for the site. The calculated value for Cancer Risk was found to exceed the NR 720 RCL for one sample, TB 3. No other Cancer Risk or Hazard Index exceedances were found. Hazard Index and Cancer Risk calculations are included in Appendix H.

Section 3

Findings and Conclusions

TRC's observations and the laboratory results of the soil samples collected from the tank cavity indicate the following:

- Two USTs, each 1,000 gallons in size, were removed from the WisDOT ROW on STH 38. The tanks were removed in accordance with the requirements of the Wisconsin Administrative Code, Chapter ATCP 93, "Flammable, Combustible and Hazardous Liquids." Obvious contamination was present therefore, a site assessment was performed on the UST cavity.
- Tank contents consisting of liquid were observed within the USTs and were removed by means of a vacuum truck. The tank contents, totaling approximately 1,000 gallons, were disposed.
- Petroleum odors were observed during and after the UST removal. Elevated PID readings were detected in collected soil samples.
- After removal of the USTs, the each tank's condition was found to be deteriorated, with several small (cm-size) holes. Contamination found in the soil surrounding the tanks, at depths shallower than the known benzene contamination, suggest a release of petroleum from the tanks.
- Fourteen soil samples were collected as part of the Tank Site Assessment and submitted for laboratory analyses. Analytical results for the soil samples collected indicated that contaminants exceeding NR 720 concentrations are present in the soil surrounding the former tanks.

Section 4 Recommendations

Based on the results of the UST closure assessment and laboratory results, residual soil contamination is present surrounding the former USTs. Historical site information indicates that some of the contamination observed between 6 and 11 feet bgs may have originated from the same source as the known benzene contamination. However, the contamination in surrounding soils shallower than 6 feet bgs and the poor tank conditions are evidence that petroleum contamination has originated from a release from the tanks.

As a result, of the contamination related to the UST, and historical benzene contamination from the nearby dry cleaning operation. Some soil that formerly surrounded the tanks was removed.

A release has been reported to the WDNR. TRC recommends that no further investigation or remediation be completed by the WisDOT.

Because roadway construction is occurring near the former USTs, contractors for the STH 38 Northwestern Avenue reconstruction project have been made aware of the location of residual soil contamination at this site.

Table 1
Soil Sampling Results Summary – Tank Removal
STH 38 (Northwestern Avenue), Golf Avenue to Memorial Drive, Racine, Wisconsin
WisDOT Project ID 2290-17-70; TRC Project ID 257062.0000.0000

ANALYTES ⁽¹⁾	NR 720 SOIL RCLs ⁽⁴⁾				SOIL SAMPLE ID AND DEPTH													
	SOIL TO GROUNDWATER PATHWAY ⁽²⁾	DIRECT CONTACT PATHWAY		SURFICIAL BACKGROUND THRESHOLD ⁽⁵⁾	SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	TB 1	TB 2	TB 3	TB 4	TB 5	TB 6
		NON-INDUSTRIAL DIRECT CONTACT ⁽³⁾	INDUSTRIAL DIRECT CONTACT ⁽³⁾		3' bgs	3' bgs	3' bgs	3' bgs	3' bgs	3' bgs	3' bgs	3' bgs	3' bgs	8' bgs	8' bgs	8' bgs	8' bgs	8' bgs
	SAMPLES COLLECTED MAY 6, 2016																	
PID Readings	-	-	-	-	114.5	59.4	1355	1900	742	1867	1744	1335	839	800	684	1070	490	820
VOCs (µg/kg)																		
Benzene	5.1	1,490	7,410	-	<8.1	<8.6	120	110	<11	310	36	<19	440	250	510	1400	920	210
n-Butylbenzene	-	108,000	108,000	-	<22	<23	690	<49	<28	4800	1500	<51	300	<25	280	280	280	840
sec-Butylbenzene	-	145,000	145,000	-	<22	<24	480	740	<29	1200	730	<53	280	270	210	260	220	420
Isopropylbenzene (Cumene)	-	268,000	268,000	-	<21	<23	890	1300	<28	3000	1200	89 J	650	650	650	770	730	510
p-Isopropyltoluene	-	162,000	162,000	-	<20	<21	310	320	<26	880	320	<48	130	200	170	230	170	190
Naphthalene	658.2	5,150	26,000	-	<19	<20	62 J	<42	<24	8800	380	<44	<22	330	71	120	81	<45
N-Propylbenzene	-	264,000	264,000	-	<23	<24	1900	2000	<30	9600	3400	240	1000	1500	1200	1400	1500	1300
Toluene	1,107.2	818,000	818,000	-	<8.2	<8.7	<9.8	<19	<11	89	<9.9	<19	<9.5	<9.4	<9.6	80	40	<20
1,2,4-Trimethylbenzene	1382.1 ⁽⁶⁾	89,800	219,000	-	<20	<21	72	<45	52 J	46000	<24	<47	<23	64	<23	130	120	<48
1,3,5-Trimethylbenzene	1382.1 ⁽⁶⁾	182,000	182,000	-	<21	<22	69	<48	<28	16000	<26	<50	<24	83	150	230	200	110 J
Xylenes	3,960	260,000	260,000	-	<12	<13	<15	<28	<16	360	<15	<29	<14	<14	36	64	55	<30
Metals (mg/kg)																		
Arsenic	0.584	0.613	2.39	8.0	1.5	2.4	4.4	5.6	7.2	5.4	4.6	4.5	4.2	4.6	15	4.0	5.4	5.1
Barium	164.8	15,300	100,000	364	11 B	15 B	34 B	33 B	78 B	42 B	35 B	55 B	39 B	33 B	35 B	41 B	39 B	43 B
Cadmium	0.752	70	799	1.0	<0.059	0.18 J	0.23	0.22	0.24	0.31	0.27	1.2	0.26	0.25	0.22	0.28	0.23	0.36
Chromium	360,000	-	-	44	3.6	4.5	13	14	27	16	13	14	15	12	16	16	16	15 V
Lead	27	400	800	52	6.1	5.2	9.3	9.7	20	12	20	98	9.5	10	20	11	9.7	23 F1
Selenium	0.52	391	5,110	-	1.1	0.74 J	<0.53	0.53 J	0.59 J	<0.50	0.59 J	0.74 J	0.65 J	<0.49	<0.53	0.82 J	<0.48	0.73 J F1
Silver	0.8491	391	5,110	-	0.15 J	<0.11	<0.12	<0.12	<0.14	<0.12	<0.12	<0.12	<0.13	<0.12	<0.13	<0.12	<0.11	<0.13
Mercury	0.208	3.13	3.13	-	<0.0084	<0.0090	0.079	0.078	0.11	0.023	0.12	0.23	0.027	0.038	0.024	0.024	0.024	0.15
Hazard Index (Cumulative)																		
Non-Industrial	-	1.0	-	-	0.0032	0.0019	0.0080	0.008	0.0086	0.5887	0.0126	0.0327	0.0078	0.0077	0.4445	0.0193	0.0125	0.0135
Industrial	-	-	1.0	-	0.0002	0.0001	0.0017	0.0015	0.0018	0.1352	0.0025	0.1274	0.0013	0.0016	0.0405	0.0034	0.0024	0.0027
Cancer Risk (Cumulative)																		
Non-Industrial	-	1.00E-05	-	-	0.0E+00	0.0E+00	9.3E-08	7.4E-08	0.0E+00	1.90E-06	9.80E-08	5.7E-10	3.0E-07	2.3E-07	2.5E-05	9.6E-07	6.3E-07	1.4E-07
Industrial	-	-	1.00E-05	-	0.0E+00	0.0E+00	1.9E-08	1.5E-08	0.0E+00	3.8E-07	1.9E-08	1.1E-10	5.9E-08	4.6E-08	6.3E-06	1.9E-07	1.3E-07	2.8E-08

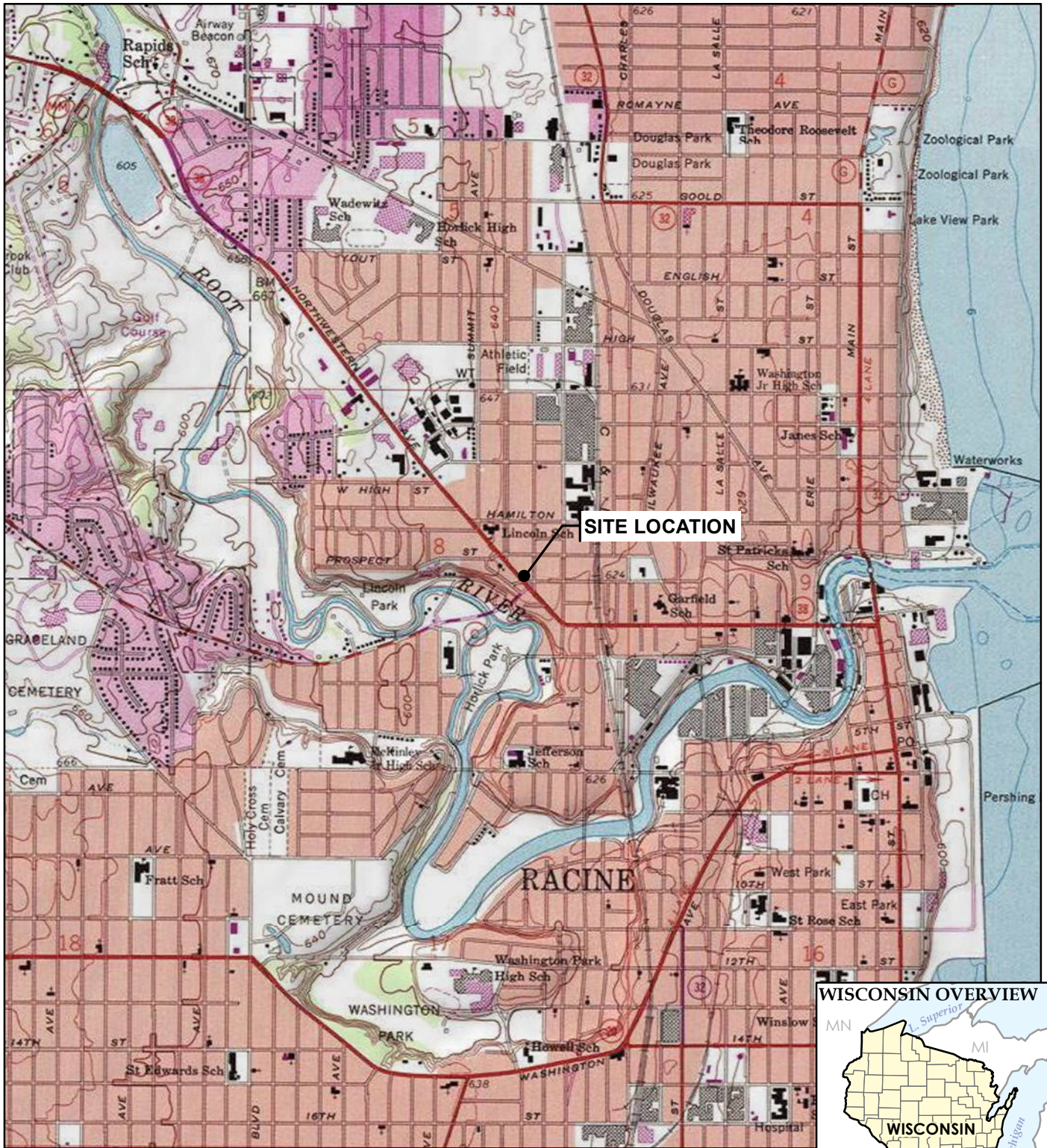
Notes:

- PID = Photoionization Detector.
- µg/kg = micrograms per kilogram (ppb).
- Samples were collected by TRC and analyzed by TestAmerica (WDNR Cert. #999580010).
- = Suggested standard has not been established for this analyte.
- = Sample was not analyzed for given analyte or field does not apply.
- RCLs = Residual Contaminant Levels.
- J = Result is less than the RCL but greater than or equal to the MDL and the concentration is an approximate value.
- B = Compound was found in the blank and sample.
- V = Serial Dilution exceeds the control limits.
- F1 = MS and/or MSD Recovery is outside acceptance limits.
- Results in **BOLD** indicate a detection (or potential detection if J-flagged) above the Non-Industrial or Industrial Direct Contact NR 720 RCL.
- Results in *italics* indicate a detection (or potential detection if J-flagged) above the Groundwater Pathway NR 720 RCL.

Footnotes:

- Only analytes that were detected in at least one sample are shown in the table.
- Value is the generic RCL for the groundwater pathway.
- Value is the generic RCL for exposure by direct contact.
- Calculated from http://epa-prgs.ornl.gov/cgi-bin/chemicals/cs_l_search using default exposure assumptions listed in NR 720.12(3)
- Background threshold value (BTv) was taken from the Wisconsin DNR's NR 720 RCL spreadsheet
- Groundwater Pathway RCL for Trimethylbenzenes (1,2,4- and 1,3,5- combined).

Created By: M. Kahrlas 5/31/2016
Checked By: L. Auner 6/1/2016



BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES.



708 Heartland Trail
Suite 3000
Madison, WI 53717
Phone: 608.826.3600

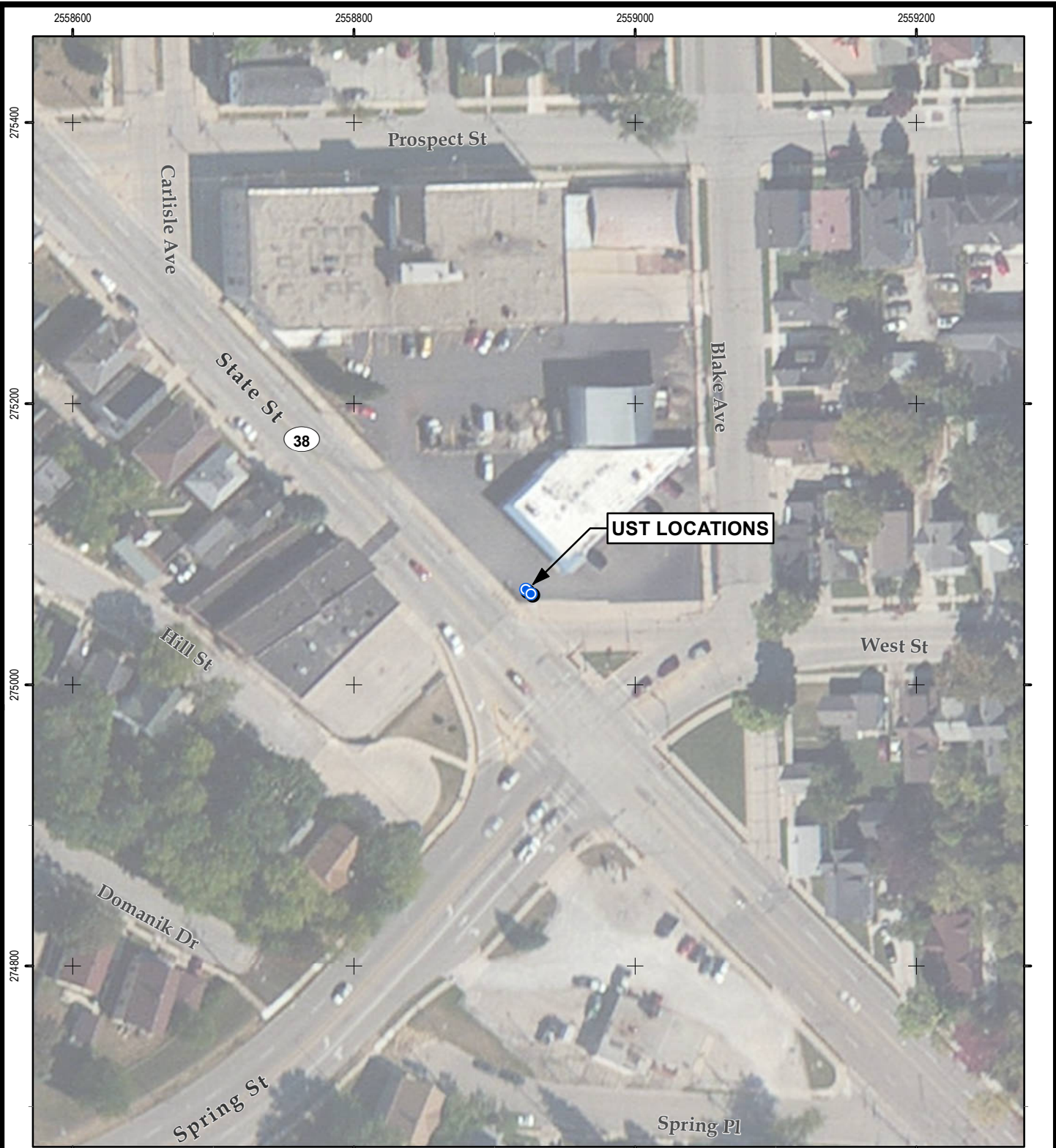
TRC - GIS

PROJECT: **WISDOT ID# 2290-17-70**
STH 38
RACINE, RACINE COUNTY, WISCONSIN

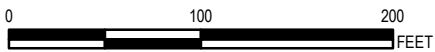
TITLE: **SITE LOCATION MAP**

DRAWN BY:	B RHODE
CHECKED BY:	L AUNER
APPROVED BY:	W STAPEL
DATE:	JULY 2016
PROJ. NO.:	243216
FILE:	243216-001slm.mxd

FIGURE 1



1" = 100'
1:1,200



NOTES:
BASE MAP IMAGERY FROM ESRI/MICROSOFT, 2011.
MAP PROJECTION AND GRID COORDINATES ARE
NAD83 STATE PLANE WI - SOUTH, US FEET.



708 Heartland Trail
Suite 3000
Madison, WI 53717
Phone: 608.826.3600

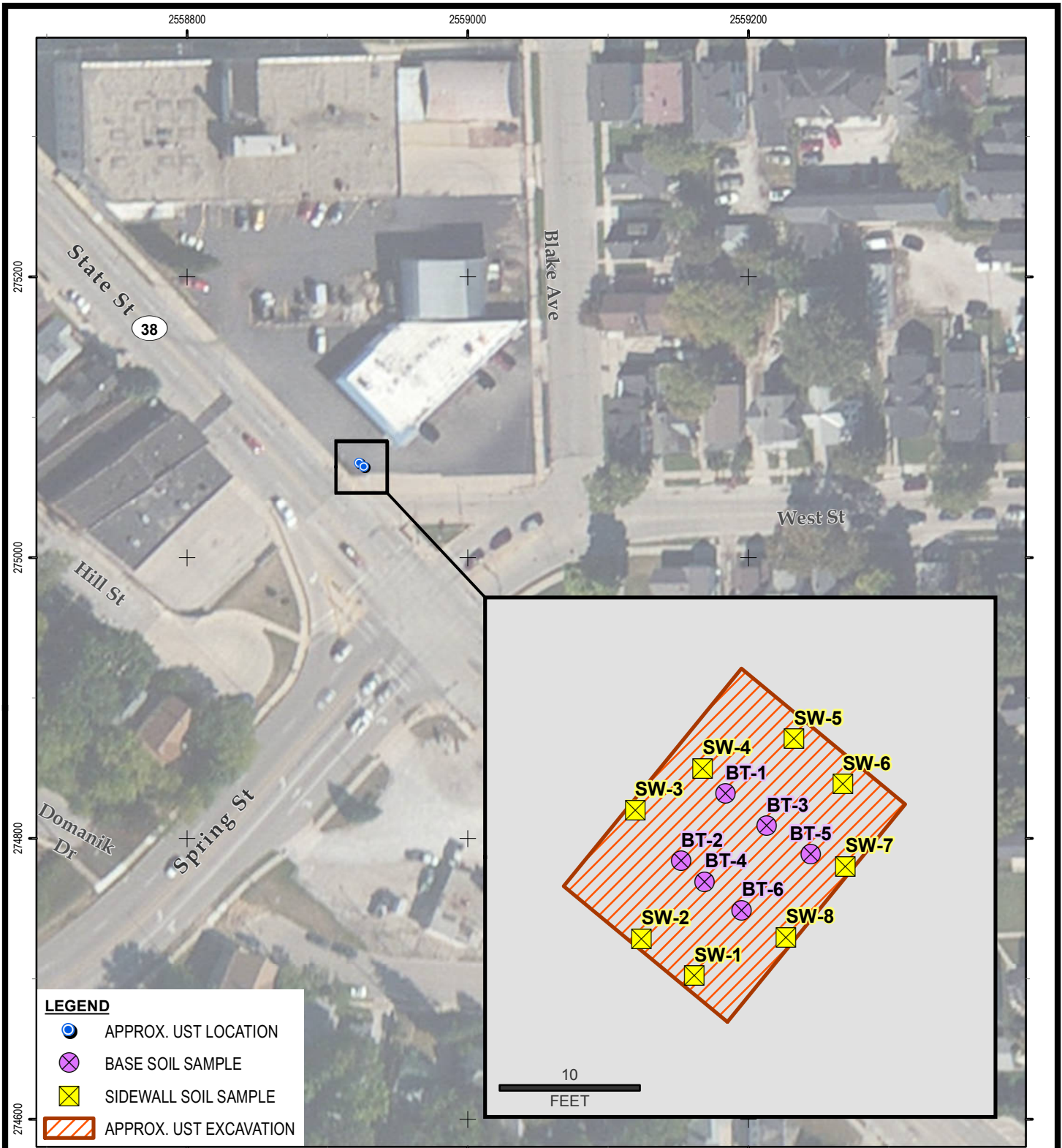
TRC - GIS

PROJECT: **WISDOT ID# 2290-17-70**
STH 38
RACINE, RACINE COUNTY, WISCONSIN





TITLE: **SITE MAP**

DRAWN BY:	B RHODE
CHECKED BY:	L AUNER
APPROVED BY:	W STAPEL
DATE:	JULY 2016
PROJ. NO.:	243216
FILE:	243216-002.mxd

FIGURE 2



LEGEND

-  APPROX. UST LOCATION
-  BASE SOIL SAMPLE
-  SIDEWALL SOIL SAMPLE
-  APPROX. UST EXCAVATION

NOTES:
 BASE MAP IMAGERY FROM ESRI/MICROSOFT, 2011.
 MAP PROJECTION AND GRID COORDINATES ARE
 NAD83 STATE PLANE WI - SOUTH, US FEET.




 708 Heartland Trail Suite 3000 Madison, WI 53717 Phone: 608.826.3600 TRC - GIS	PROJECT: WISDOT ID# 2290-17-70 STH 38 RACINE, RACINE COUNTY, WISCONSIN	DRAWN BY: B RHODE CHECKED BY: L AUNER APPROVED BY: W STAPEL DATE: JULY 2016
	TITLE: SOIL SAMPLE LOCATIONS	PROJ. NO.: 243216 FILE: 243216-003.mxd

FIGURE 3

Appendix A

BRRTS Site Listing and Map


Wisconsin Department of Natural Resources


Environmental Cleanup & Brownfields Redevelopment

BRRTS on the Web

Click the Location Name below to view the Location Details page for this Activity. Other Activities, if present, may be viewed from that page.

[< Basic Search](#)

02-52-549890 MARTINIZING DRYCLEANING						
OPEN ERP						
Location Name (Click Location Name to View Location Details)				County	WDNR Region	
MARTINIZING DRYCLEANING				RACINE	SOUTHEAST	
Address				Municipality		
1730 STATE ST				RACINE		
Public Land Survey System			Latitude	Google Maps	RR Sites Map	
SW 1/4 of the NE 1/4 of Sec 08, T03N, R23E			42.7334885	CLICK TO VIEW	CLICK TO VIEW	
Additional Location Description			Longitude	Facility ID	Size (Acres)	
			-87.8022111	252251010	UNKNOWN	
Jurisdiction	PECFA No.	EPA Cerclis ID	Start Date	End Date	Last Action	
DNR RR			2007-06-01		2016-02-02	
Characteristics						
PECFA Tracked?	EPA NPL Site?	Eligible for PECFA Funds?	Above Ground Storage Tank?	Drycleaner?	Co-Contamination?	On GIS Registry? 
No	No	No	No	Yes	No	No
Actions						
Place Cursor Over Action Code to View Description						
Date	Code	Name	Comment			
2007-06-01	1	Notification				
2007-08-02	2	RP Letter Sent				
2007-08-21	99	Miscellaneous	REC'D DERF PCN FORM 4400-210 RECEIVED			
2007-09-28	110	Date Potential Claim Form Approved - DERF				
2007-10-24	99	Miscellaneous	DERF BID PROP NORTHERN			
2007-11-07	99	Miscellaneous	DERF BID PROP GILES			
2007-11-09	99	Miscellaneous	DERF BID PROP SIGMA			
2009-07-28	113	Receipt of Bid Review Requests - DERF	CONSULTANT SELCTION FORM			
2010-03-05	35	Site Investigation Workplan Received (w/out Fee)	DERF			
2010-04-22	81	Site Investigation Workplan Not Approved	NEEDED COSTS FOR ADDTL SI WORK			
2010-05-11	99	Miscellaneous	WELL CONST FORMS FOR GROUND WATER MONITOR			
2010-06-04	30	Site Investigation Workplan Go Ahead (notice to proceed)	WITH ADDTL COSTS OF \$13375, FOR TOTAL TO DATE OF \$29,210			
2010-06-04	99	Miscellaneous	COST BREAKDOWN FOR CHANGE ORDER FOR ADDTL SI			
2011-02-09	37	SI Report Received (w/out Fee)				
2011-04-01	216	Request for Review of "Contained-in Rulings" - DERF	4/18/2011 APPROVED			
2011-04-18	140	Site Investigation Report Not Approved	SOME CONCERNS NEED TO BE ADDRESSED			
2011-05-19	217	Application for Cost				

		Reimbursement Received - DERF	
2011-08-22	112	Receipt of Change Orders - DERF	APPROVED 10/14/11 REQ, \$6215, TOTAL \$35425
2011-09-07	130	DNR Regulatory Reminder Sent	Vapor Intrusion (VI) Assessment Notification Ltr Sent
Linked to Code 130: 0252549890 VI Letter.pdf Click to Download or Open			
2011-11-21	99	Miscellaneous	SENT TO MADISON FOR APPROVAL
2011-12-06	218	Application for Cost Reimbursement Approved - DERF	DC-452 APPROVED; CHECK BEING PROCESSED; COMPLETE CLAIM RECEIVED IN SER ON 9/12/11
2012-02-13	37	SI Report Received (w/out Fee)	
2012-03-30	140	Site Investigation Report Not Approved	MORE INF NECESSARY TO COMPLETE SI
2014-01-30	130	DNR Regulatory Reminder Sent	DERF FUNDING STATUS LTR
2014-09-25	195	Semi-Annual/PECFA Cost Reporting Requirement Met	Period: 1/1/2014 - 6/30/2014
Click 195 Action Name above to view the NR700 report			
2015-01-15	195	Semi-Annual/PECFA Cost Reporting Requirement Met	Period: 7/1/2014 - 12/31/2014
Click 195 Action Name above to view the NR700 report			
2015-02-26	112	Receipt of Change Orders - DERF	SI INV
2015-06-24	198	Request for Additional Information (Fee-Based or Closure)	PENDING RESUBMITTAL OF WORKPLAN AND RECASTING
2015-06-24	99	Miscellaneous	OWNER PASSED AWAY AND FAMILY IS COMING UP TO SPEED ON THE DRYCLEANER PROCESS.
2015-07-06	195	Semi-Annual/PECFA Cost Reporting Requirement Met	Period: 1/1/2015 - 6/30/2015
Click 195 Action Name above to view the NR700 report			
2015-11-06	112	Receipt of Change Orders - DERF	CHANGE ORDER #3 - CORRECTED COSTS
2016-02-02	195	Semi-Annual/PECFA Cost Reporting Requirement Met	Period: 7/1/2015 - 12/31/2015
Click 195 Action Name above to view the NR700 report			
Financial 			
Grants, Loans, DERF Expenditures, State-Funded and Spill Response			
Category		Fiscal Year	Amount
DERF Reimbursements : Grant		2012	\$20,454
Impacts			
Type	Comment		
Groundwater Contamination	-		
Off-Site Contamination (Potential)	-		
Soil Contamination	-		
Substances			
Substance	Type	Amount Released	Units
Perchloroethylene	VOC		
Who			
Role	Name/Address		
Project Manager	SHANNA LAUBE-ANDERSON 9531 RAYNE RD STURTEVANT, WI 53177		
Responsible Party	DOUG BERRY 3319 NOBBHILL DR RACINE, WI		

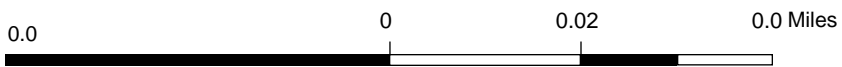
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Release 2.4.11 | 03/24/2016 | [Release Notes](#)



Legend

- Open Site (ongoing cleanup)
- Open Site Boundary
- Closed Site (completed cleanup)
- Closed Site Boundary
- Groundwater Contamination
- Soil Contamination
- Groundwater and Soil Contamination
- Contamination From Another Property
- Dryclean Environmental Response Fund (DERF)
- Green Space Grant (2004-2009)
- Ready for Reuse
- Site Assessment Grant (2001-2009)
- State Funded Response
- Sustainable Urban Development Zone (S)
- General Liability Clarification Letters
- Superfund NPL
- Voluntary Party Liability Exemption
- Rivers and Streams
- Open Water
- Municipality
- State Boundaries
- County Boundaries
- Major Roads**
 - Interstate Highway
 - State Highway
 - US Highway



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1: 990

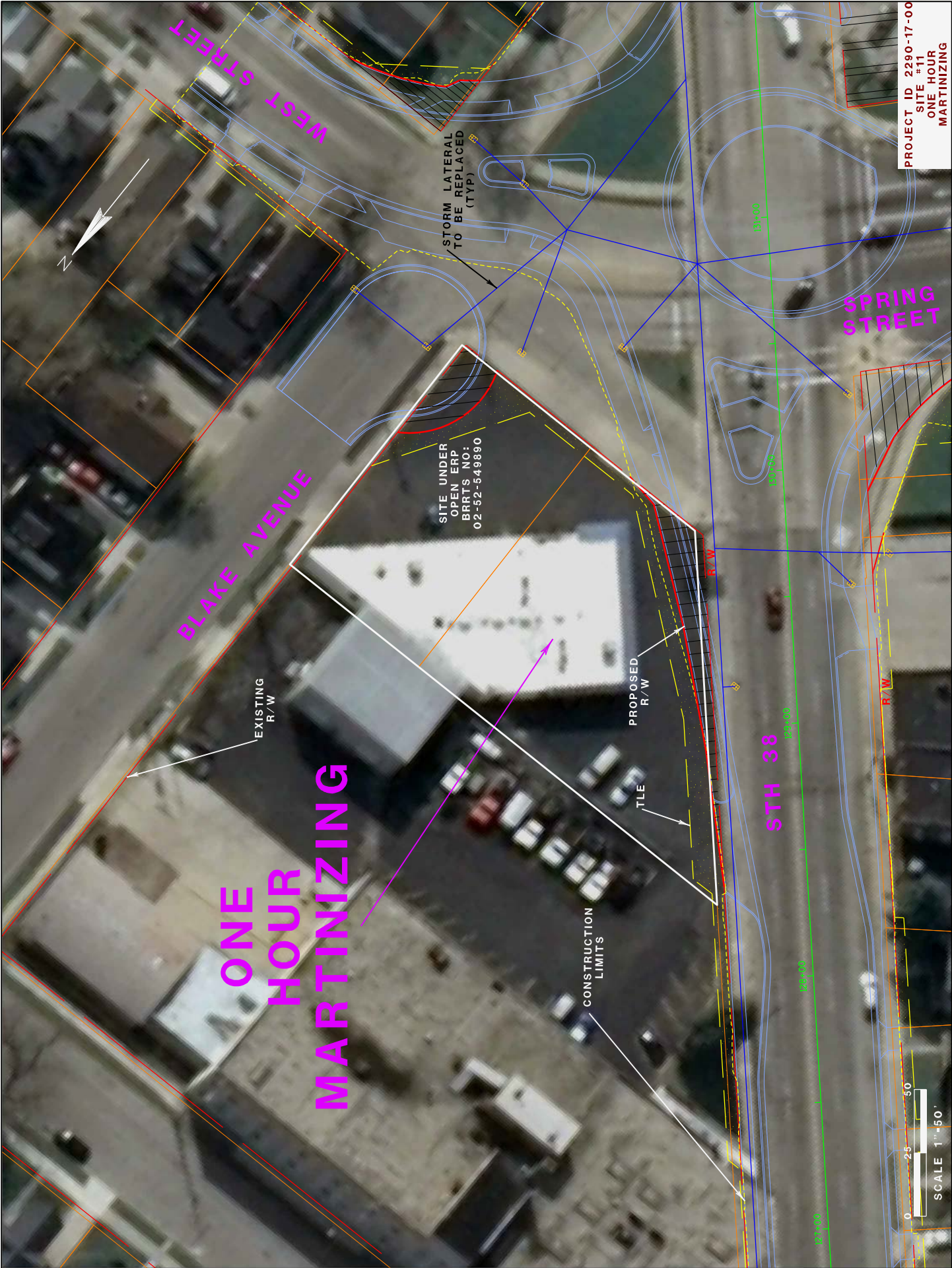
DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: <http://dnr.wi.gov/org/legal/>

Note: Not all sites are mapped.

Notes

Appendix B

Phase 1 Site Information



PROJECT ID 2280-17-00
SITE #11
ONE HOUR
MARTINIZING

ONE HOUR MARTINIZING

BLAKE AVENUE

WEST STREET

SPRING STREET

STH 38

SITE UNDER OPEN ERP
BRRTS NO:
02-52-548690

STORM LATERAL
TO BE REPLACED
(TYP)

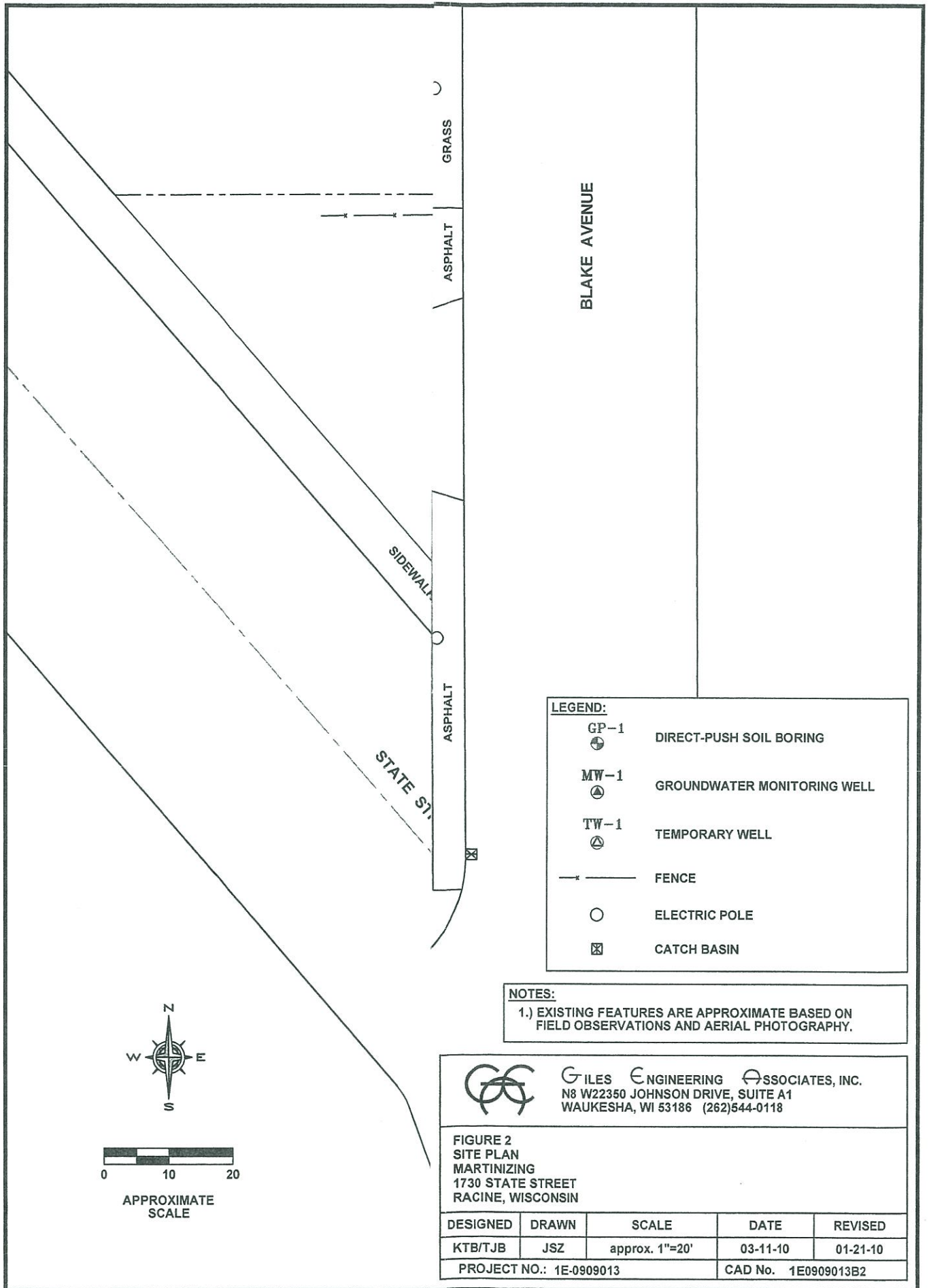
EXISTING
R/W

PROPOSED
R/W

TLE

CONSTRUCTION
LIMITS

SCALE 1" = 50'



LEGEND:

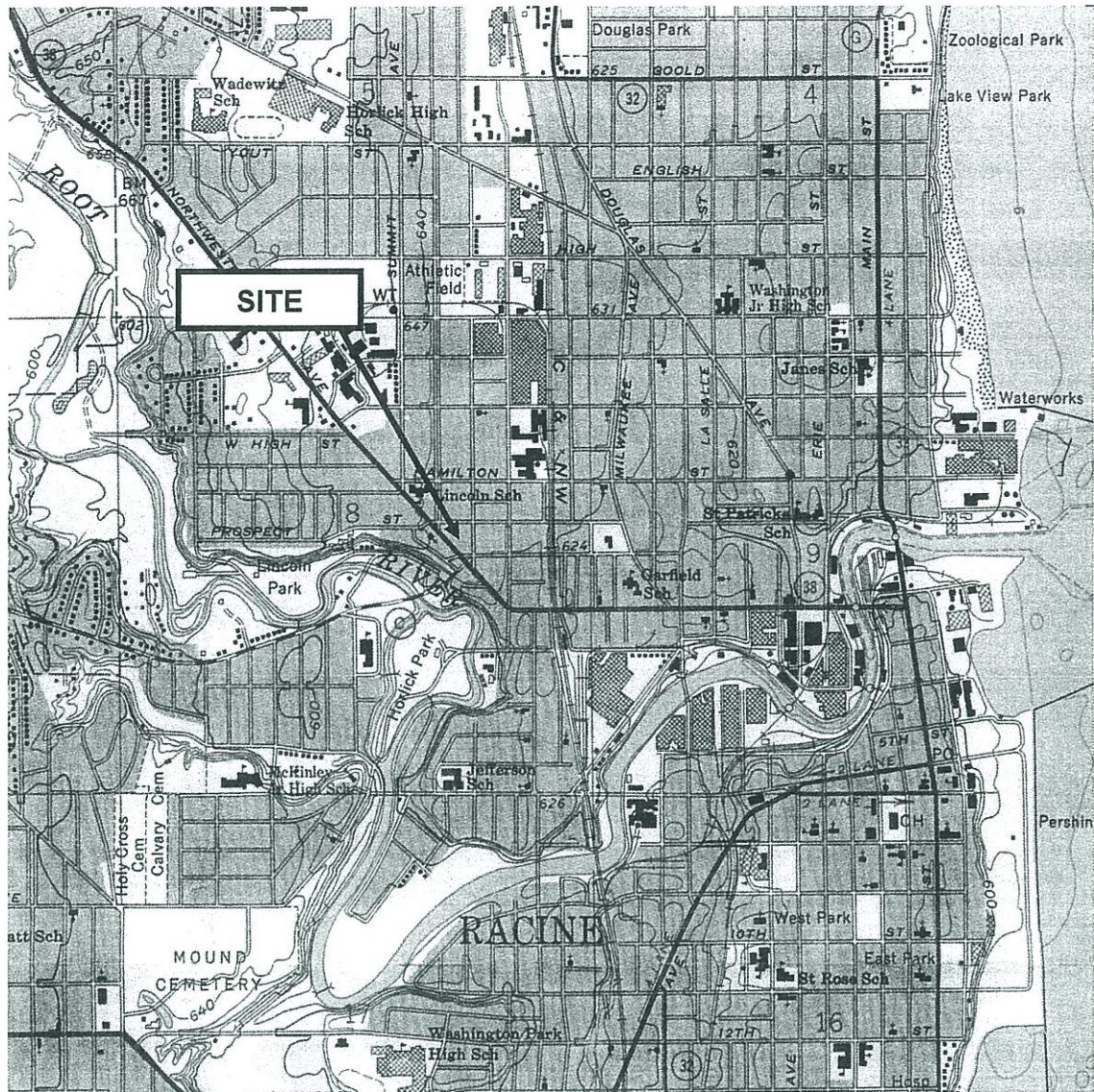
- GP-1 DIRECT-PUSH SOIL BORING
- MW-1 GROUNDWATER MONITORING WELL
- TW-1 TEMPORARY WELL
- FENCE
- ELECTRIC POLE
- CATCH BASIN

NOTES:
 1.) EXISTING FEATURES ARE APPROXIMATE BASED ON FIELD OBSERVATIONS AND AERIAL PHOTOGRAPHY.

Giles Engineering Associates, Inc.
 N8 W22350 JOHNSON DRIVE, SUITE A1
 WAUKESHA, WI 53186 (262)544-0118

**FIGURE 2
 SITE PLAN
 MARTINIZING
 1730 STATE STREET
 RACINE, WISCONSIN**

DESIGNED	DRAWN	SCALE	DATE	REVISED
KTB/TJB	JSZ	approx. 1"=20'	03-11-10	01-21-10
PROJECT NO.: 1E-0909013			CAD No. 1E0909013B2	



Source: USGS Racine South, Wisconsin 7.5-Minute Series (topographic)
 Quadrangle Map (1958; photorevised in 1971 and 1976)

Scale: 1:24,000
 Contour Interval: 10 Feet

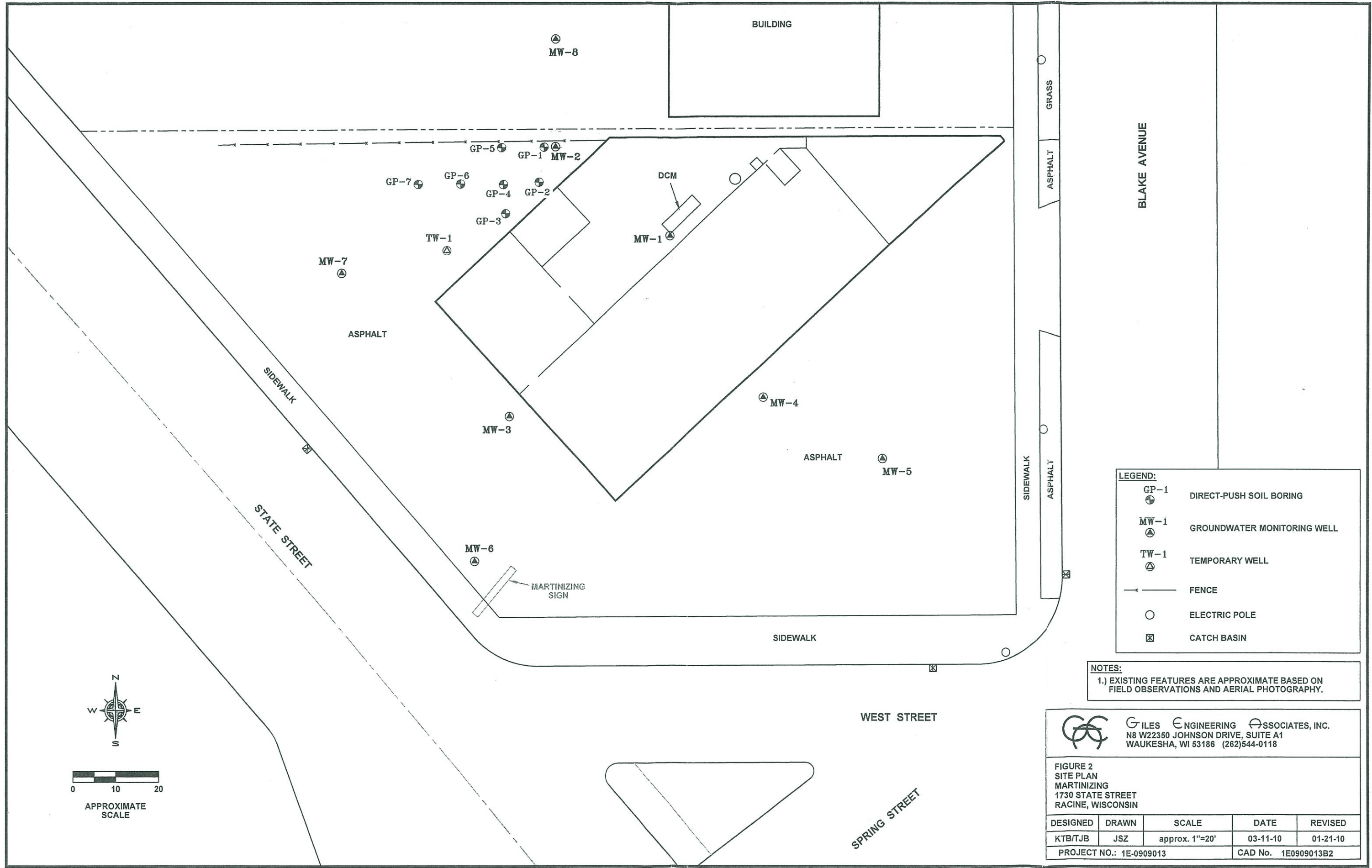


FIGURE 1
SITE LOCATION MAP

Martinizing Racine
 1730 State Street
 Racine, Wisconsin
 Project No. 1E-0909013



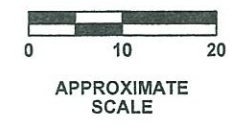
GILES
 ENGINEERING ASSOCIATES, INC.



LEGEND:

- GP-1 DIRECT-PUSH SOIL BORING
- MW-1 GROUNDWATER MONITORING WELL
- TW-1 TEMPORARY WELL
- FENCE
- ELECTRIC POLE
- CATCH BASIN

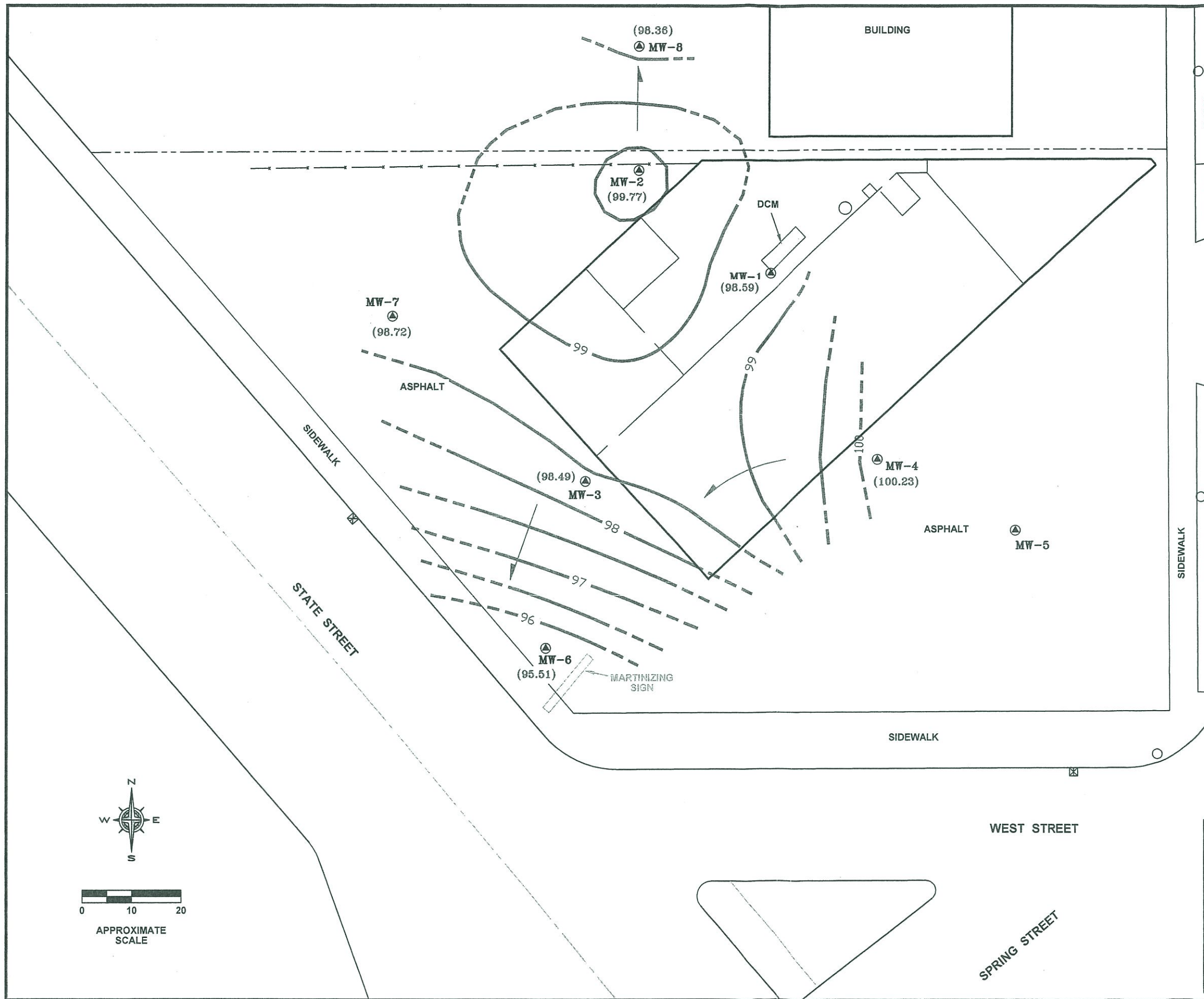
NOTES:
 1.) EXISTING FEATURES ARE APPROXIMATE BASED ON FIELD OBSERVATIONS AND AERIAL PHOTOGRAPHY.



GILES ENGINEERING ASSOCIATES, INC.
 N8 W22350 JOHNSON DRIVE, SUITE A1
 WAUKESHA, WI 53186 (262)544-0118

FIGURE 2
 SITE PLAN
 MARTINIZING
 1730 STATE STREET
 RACINE, WISCONSIN

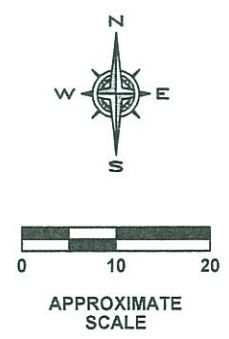
DESIGNED	DRAWN	SCALE	DATE	REVISED
KTB/TJB	JSZ	approx. 1"=20'	03-11-10	01-21-10
PROJECT NO.: 1E-0909013			CAD No. 1E0909013B2	



LEGEND:

- GROUNDWATER CONTOUR INTERVAL = 0.5' (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION
- GROUNDWATER ELEVATION (IN FEET REFERENCED TO ARBITRARY BENCHMARK)
- GROUNDWATER MONITORING WELL
- FENCE
- ELECTRIC POLE
- CATCH BASIN

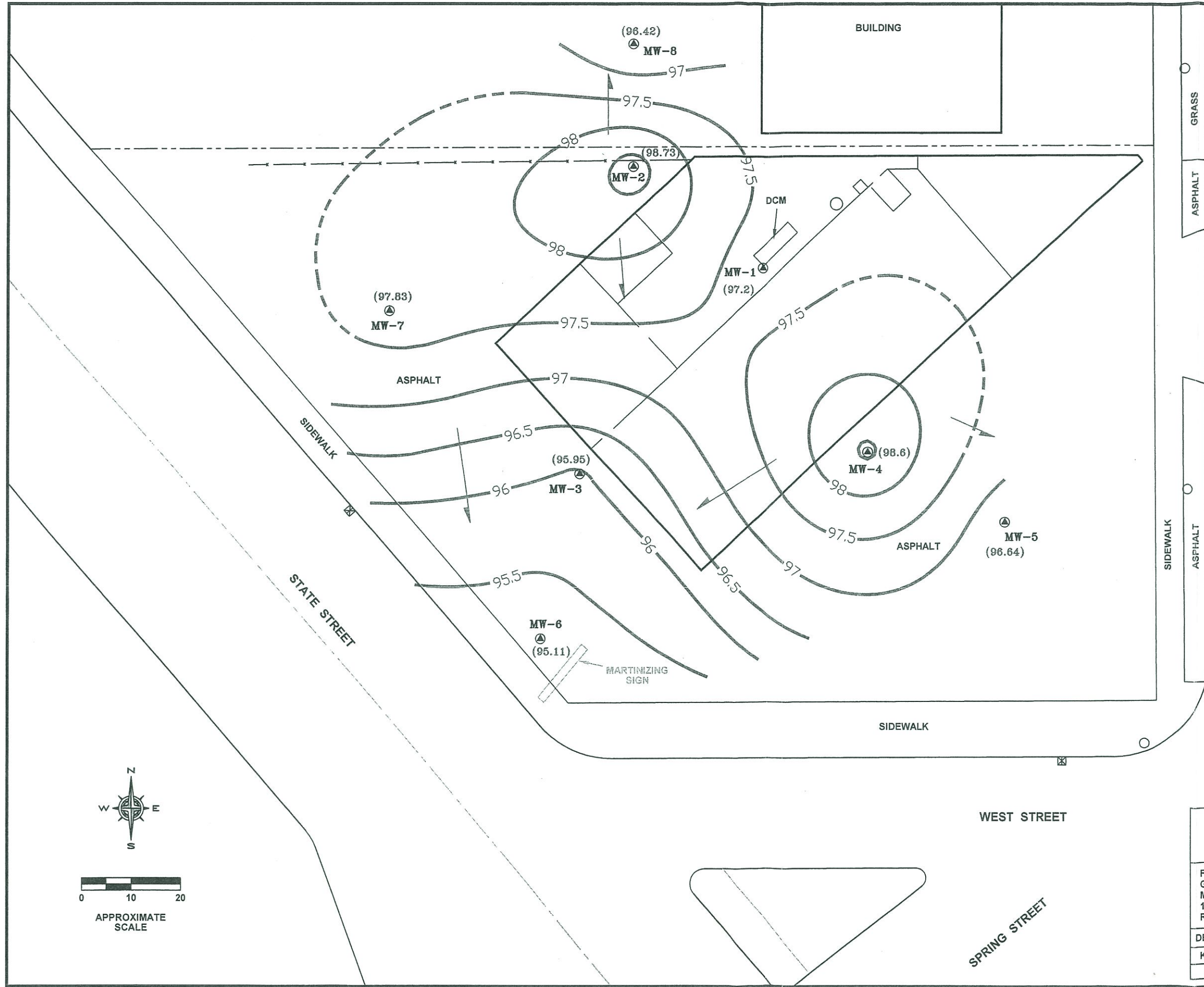
NOTES:
 1.) EXISTING FEATURES ARE APPROXIMATE BASED ON FIELD OBSERVATIONS AND AERIAL PHOTOGRAPHY.



GILES ENGINEERING ASSOCIATES, INC.
 N8 W22350 JOHNSON DRIVE, SUITE A1
 WAUKESHA, WI 53186 (262)544-0118

FIGURE 3
 GROUNDWATER CONTOUR MAP (8-3-10)
 MARTINIZING
 1730 STATE STREET
 RACINE, WISCONSIN

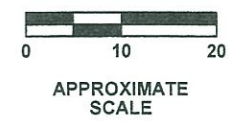
DESIGNED	DRAWN	SCALE	DATE	REVISED
KTB/TJB	JSZ	approx. 1"=20'	01-25-11	--
PROJECT NO.: 1E-0909013			CAD No. 1E0909013C2	



LEGEND:

- GROUNDWATER CONTOUR INTERVAL = 0.5' (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION
- GROUNDWATER ELEVATION (IN FEET REFERENCED TO ARBITRARY BENCHMARK)
- GROUNDWATER MONITORING WELL
- FENCE
- ELECTRIC POLE
- CATCH BASIN

NOTES:
 1.) EXISTING FEATURES ARE APPROXIMATE BASED ON FIELD OBSERVATIONS AND AERIAL PHOTOGRAPHY.



GILES ENGINEERING ASSOCIATES, INC.
 N8 W22350 JOHNSON DRIVE, SUITE A1
 WAUKESHA, WI 53186 (262)544-0118

FIGURE 4
 GROUNDWATER CONTOUR MAP (12-1-10)
 MARTINIZING
 1730 STATE STREET
 RACINE, WISCONSIN

DESIGNED	DRAWN	SCALE	DATE	REVISED
KTB/TJB	JSZ	approx. 1"=20'	01-27-11	--
PROJECT NO.: 1E-0909013			CAD No. 1E0909013D2	

TABLE 1
SOIL ANALYTICAL RESULTS (VOCs)

Martinizing Racine
1730 State Street
Racine, Wisconsin
1E-0909013

Analyte	Sample Location																								NR 720.09 RCLs	NR 746.06 Table 1 (Product Indicator)	Calculated EPA SSL	WDNR Landfill Disposal Limit Contaminated-Out Non-Hazardous	
	TW-1	MW-1			MW-2		MW-3	MW-4		MW-5	MW-6	MW-7	MW-8	GP-1			GP-2		GP-3		GP-4		GP-5						GP-6
Sample Depth (feet)	6 - 8	0 - 2	10 - 12	0 - 2	6 - 8	2 - 4	2 - 4	10 - 12	2 - 4	2 - 4	2 - 4	2 - 3	4 - 6	8 - 10	12 - 14	4 - 6	8 - 10	2 - 4	6 - 8	4 - 6	6 - 8	4 - 6	6 - 8	4 - 6	6 - 8				
Sample Date	1/21/10	1/21/10	1/21/10	1/21/10	1/21/10	1/21/10	1/21/10	1/21/10	1/21/10	7/23/10	7/23/10	7/23/10	7/23/10	6/23/10	6/23/10	6/23/10	6/23/10	6/23/10	6/23/10	6/23/10	6/23/10	6/23/10	6/23/10	6/23/10	6/23/10	6/23/10			
PID	14	11	12	420	42	BDL	BDL	BDL	BDL	16	7	BDL	86	188	152	498	228	BDL	BDL	246	28	13	9	71	50				
Detected VOCs (µg/kg)																													
n-Butylbenzene	<29	<28	<58	<14000	<300	<27	<31	<29	<31	<31	<31	<34	<290	<2900	<290	<580	<1400	<31	<29	780	<29	<31	<29	<28	290	NS	NS	NC	NS
sec-Butylbenzene	130	29	<58	<14000	<300	<27	<31	<29	<31	<31	<31	<34	<290	<2900	<290	<580	<1400	<31	<29	860	43	<31	<29	<28	170	6,000	8,500	NC	NS
cis-1,2-Dichloroethene	<29	7300	1900	19000	<300	<27	<31	34	<31	<31	<31	<34	<290	<2900	770	5500	2300	<31	<29	<31	58	220	220	<28	<31	NS	NS	156,000	NS
trans-1,2-Dichloroethene	<29	45	<58	<14000	<300	<27	<31	<29	<31	<31	<31	<34	<290	<2900	<290	<580	<1400	<31	<29	<31	<29	<31	<29	<28	<31	NS	NS	NC	NS
Ethylbenzene	<29	41	<58	<14000	<300	<27	<31	<29	<31	<31	<31	<34	<290	<2900	<290	<580	<1400	<31	<29	<31	<29	<31	<29	<28	<31	2,900	4,600	NC	NS
Isopropylbenzene	110	<28	<58	<14000	<300	<27	<31	<29	<31	<31	<31	<34	<290	<2900	<290	<580	<1400	<31	<29	94	<29	<31	<29	<28	290	NS	NS	NC	NS
p-Isopropyltoluene	<29	61	<58	<14000	<300	<27	<31	<29	<31	<31	<31	<34	<290	<2900	<290	<580	<1400	<31	<29	<31	<29	<31	<29	<28	<31	NS	NS	NC	NS
Naphthalene	<58	340	<120	<28000	<610	230	<63	<57	<62	<61	<62	80	<590	<5800	<570	<1200	<2900	<62	<58	<61	<58	<63	<58	<57	140	NS	2,700	NC	NS
n-Propylbenzene	62	41	<58	<14000	<300	<27	<31	<29	<31	<31	<31	<34	<290	<2900	<290	<580	<1400	<31	<29	45	<29	<31	<29	<28	390	NS	NS	NC	NS
Tetrachloroethene	41	570	10000	{520000}	{59000}	33	73	82	<31	<31	530	<34	{62000}	{510000}	{47000}	{97000}	{250000}	<31	<29	32	<29	78	<29	150	<31	NS	NS	1,230	33,000
Toluene	<29	32	<58	<14000	<300	<27	<31	<29	<31	<31	<31	<34	<290	<2900	<290	<580	<1400	<31	<29	<31	<29	<31	<29	<28	<31	1,500	36,000	NC	NS
Trichloroethene	<29	83	2700	{420000}	2200	<27	<31	<29	<31	<31	44	<34	1200	9300	380	5300	5500	<31	<29	<31	<29	41	<29	<28	<31	NS	NS	850	14,000
1,2,4-Trimethylbenzene	<29	320	<58	<14000	<300	<27	<31	<29	<31	<31	<31	55	<290	<2900	<290	<580	<1400	<31	<29	<31	<29	<31	<29	<28	<31	NS	NS	NC	NS
1,3,5-Trimethylbenzene	<29	110	<58	<14000	<300	<27	<31	<29	<31	<31	<31	<34	<290	<2900	<290	<580	<1400	<31	<29	<31	<29	<31	<29	<28	<31	NS	NS	NC	NS
Vinyl chloride	<41	210	<82	<20000	<420	<38	<44	<40	<44	<43	<43	<47	<410	<4100	<400	<810	<2000	<43	<41	<43	41	<44	<40	<40	<43	NS	NS	NC	NS
total Xylenes	<99	220	<200	<47000	<1000	<93	<110	<98	<110	<100	<110	<110	<1000	<9900	<980	<2000	<4900	<110	<99	<100	<99	<110	<98	<97	<100	4,100	42,000	NC	NS

NOTES:

PID: Photoionization Detector

BDL: Below Detection Limit

TPH: Total Petroleum Hydrocarbons (TX 1005 Method)

VOCs: Volatile organic compounds

ODEQ: Oklahoma Department of Environmental Quality

mg/kg: Milligrams per kilogram; equivalent to parts per million (ppm)

µg/kg: Micrograms per kilogram; equivalent to parts per billion (ppb)

J: Result is below the method quantitation limit (MQL)

Results indicated in red/underlined exceed the Tier 1 Generic Cleanup Level (Residential)

Results indicated in purple/{...} exceed the WDNR landfill standard for Contaminated-Out, Non-Hazardous Material

Results indicated in brown/#...# exceed the Calculated Soil Screening Level Using the US EPA Web-based Calculator

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
(Detected VOCs)

Martinizing Racine
1730 State Street
Racine, Wisconsin
Project No. 1E-0909013

Analyte	MW-1			MW-2			MW-3			MW-4			MW-5		MW-6		MW-7		MW-8		TW-1	NR140 ES	NR 140 PAL	
	02/08/10	08/03/10	12/01/10	02/08/10	08/03/10	12/01/10	02/08/10	08/03/10	12/01/10	02/08/10	08/03/10	12/01/10	08/03/10	12/01/10	08/03/10	12/01/10	08/03/10	12/01/10	08/03/10	12/01/10	02/08/10			
Sample Date	02/08/10	08/03/10	12/01/10	02/08/10	08/03/10	12/01/10	02/08/10	08/03/10	12/01/10	02/08/10	08/03/10	12/01/10	08/03/10	12/01/10	08/03/10	12/01/10	08/03/10	12/01/10	08/03/10	12/01/10	02/08/10			
Benzene	<3.2	<8.0	<10	<2.0	<40	<50	<0.40	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20	<u>16.0</u>	(3.4)	(1.8j)	(0.97j)	<0.40	<1.0	(1.6)	5	0.5	
n-Butylbenzene	<3.2	<8.0	<10	<2.0	<40	<50	<0.40	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.40	<1.0	1.1	NS	NS	
sec-Butylbenzene	<4.0	<10	<13	<2.5	<50	<63	<0.50	<0.25	<0.25	<1.2	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.50	<1.3	1.2	NS	NS	
chloroethane	<16	<40	<50	<10	<200	<250	<2.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.8j	<2.0	<5.0	<1.0	400	80	
1,1-Dichloroethene	<8.0	<20	<25	11j	<100	<130	<1.0	<0.50	<0.50	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.3j	<2.5	<0.5	850	85
cis-1,2-Dichloroethene	<u>1000</u>	<u>3,800</u>	<u>2,000</u>	<u>2,600</u>	<u>2,300</u>	<u>2,700</u>	(20)	(1.0j)	(5.5)	(13)	(27)	(21)	0.56j	4.6	<0.50	<0.50	<0.50	<0.50	<0.50	4.10	670	(17)	70	7
trans-1,2-Dichloroethene	(12j)	(40j)	(25j)	(20j)	<100	<130	<1.0	<0.50	<0.50	<2.5	2.8	1.2j	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	3.0j	4.9j	0.61j	100	20
isopropyl ether	<8.0	<20	<25	<5.0	<100	<130	<1.0	<0.50	<0.50	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.71j	<0.50	<0.50	<1.0	<2.5	<0.50	NS	NS	
isopropylbenzene	<3.2	<8.0	<10	<2.0	<40	<50	<0.40	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20	0.57j	0.47j	<0.20	<0.20	<0.40	<1.0	3.7	NS	NS	
Naphthalene	<4.0	<10	<13	<2.5	<50	<63	<0.50	<0.25	<0.25	<1.2	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.50	<1.3	0.72j	40	8	
n-Propylbenzene	<8.0	<20	<25	<5.0	<100	<130	<1.0	<0.50	<0.50	<2.5	<0.50	<0.50	<0.50	<0.50	0.52j	<0.50	<0.50	<0.50	<1.0	<2.5	4.1	NS	NS	
Tetrachloroethene	<u>280</u>	<u>1,700</u>	<u>730</u>	<u>11,000</u>	<u>21,000</u>	<u>22,000</u>	<u>210</u>	(0.60j)	(0.80j)	<u>130</u>	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<u>170</u>	<u>150</u>	(3.0)	5	0.5	
Trichloroethene	<u>260</u>	<u>1,900</u>	<u>860</u>	<u>4,200</u>	<u>8,300</u>	<u>7,000</u>	<u>81</u>	<0.20	(0.22j)	<u>27</u>	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<u>110</u>	<u>100</u>	<0.2	5	0.5	
Vinyl chloride	<u>71</u>	<u>340</u>	<u>210</u>	<u>110</u>	<u>54j</u>	<50j	<u>0.84j</u>	<0.20	<0.20	<1.0	<u>0.36j</u>	<0.20	<0.20	<0.20	<0.20	<0.20	<u>2.4</u>	<u>2.1</u>	<u>24</u>	<u>45</u>	<u>7.0</u>	0.2	0.02	

NOTES:

VOCs: Volatile Organic Compounds

NS: No published NR 140 ES or PAL

Results presented in micrograms per liter (µg/L); equivalent to parts per billion (ppb)

j: Result detected between laboratory method detection limit and quantitation limit

NR: Natural Resources

ES: Enforcement Standard

PAL: Preventive Action Limit

Results indicated in red/underline exceed the Wisconsin Administrative Code NR 140 Enforcement Standard (ES)

Results indicated in blue/parenthesis are above the Wisconsin Administrative Code NR 140 Preventive Action Limits (PAL)

Table 3
Groundwater Elevation Summary

Martinizing Cleaners
1730 State Street
Racine, Wisconsin
Giles Project No. 1E-0909013



Well ID	Elevation (TOC)*	Elevation Ground Surface	Well Depth	Screen Length	Groundwater Depth (TOC)	Calculated Groundwater Elevation	Change in Elevation	Feet Water in Well	Date
MW-1	101.73	101.81	16.00	10.00	4.39	97.34		11.61	02/08/2010
					4.09	97.64	0.30	11.91	02/26/2010
					2.91	98.82	1.18	13.09	06/23/2010
					3.41	98.32	-0.50	12.59	07/23/2010
					3.14	98.59	0.27	12.86	08/03/2010
					4.53	97.20	-1.39	11.47	12/01/2010
MW-2	101.54	101.85	16.00	10.00	4.25	97.29		11.75	02/08/2010
					3.06	98.48	1.19	12.94	02/26/2010
					1.36	100.18	1.70	14.64	06/23/2010
					1.80	99.74	-0.44	14.20	07/23/2010
					1.77	99.77	0.03	14.23	08/03/2010
					2.81	98.73	-1.04	13.19	12/01/2010
MW-3	101.33	101.56	13.00	10.00	4.45	96.88		8.55	02/08/2010
					4.14	97.19	0.31	8.86	02/26/2010
					2.40	98.93	1.74	10.60	06/23/2010
					3.16	98.17	-0.76	9.84	07/23/2010
					2.84	98.49	0.32	10.16	08/03/2010
					5.38	95.95	-2.54	7.62	12/01/2010
MW-4	102.53	102.82	16.00	10.00	4.61	97.92		11.39	02/08/2010
					3.46	99.07	1.15	12.54	02/26/2010
					3.02	99.51	0.44	12.98	06/23/2010
					3.02	99.51	0.00	12.98	07/23/2010
					2.30	100.23	0.72	13.70	08/03/2010
					3.93	98.60	-1.63	12.07	12/01/2010
MW-5	99.61	100.34	13.00	10.00	NW				02/08/2010
					NW				02/26/2010
					NW				06/23/2010
					NW				07/23/2010
					9.03	90.58		3.97	08/03/2010
					2.97	96.64	6.06	10.03	12/01/2010
MW-6	99.47	100.76	13.00	10.00	NW				02/08/2010
					NW				02/26/2010
					NW				06/23/2010
					NW				07/23/2010
					3.96	95.51		9.04	08/03/2010
					4.36	95.11	-0.40	8.64	12/01/2010
MW-7	101.08	101.51	13.00	10.00	NW				02/08/2010
					NW				02/26/2010
					NW				06/23/2010
					NW				07/23/2010
					2.36	98.72		10.64	08/03/2010
					3.25	97.83	-0.89	9.75	12/01/2010
MW-8	100.78	101.16	13.00	10.00	NW				02/08/2010
					NW				02/26/2010
					NW				06/23/2010
					NW				07/23/2010
					2.42	98.36		10.58	08/03/2010
					4.36	96.42	-1.94	8.64	12/01/2010

Appendix C

Photographic Documentation



Photographic Log

Client Name: Wisconsin Department of Transportation (WisDOT)		Site Location: STH 38 (Northwestern Avenue), Golf Avenue to Memorial Drive, Racine, Racine County, Wisconsin	Project No.: WisDOT: 2290-17-70 TRC: 243216.0000.0000
Photo No. 1	Date 5/2/2016		
Description Reconstruction activities along STH 38, as viewed facing northwest from the southwest corner of the One-Hour Martinizing dry cleaning facility (to the right in the photo).			
Photo No. 2	Date 5/2/2016		
Description Excavation for storm sewer installation along STH 38, as viewed facing northwest.			



Photographic Log



Client Name: Wisconsin Department of Transportation (WisDOT)		Site Location: STH 38 (Northwestern Avenue), Golf Avenue to Memorial Drive, Racine, Racine County, Wisconsin	Project No.: WisDOT: 2290-17-70 TRC: 243216.0000.0000
Photo No. 3	Date 05/05/16		
Description Both tanks after they were uncovered during grading activities.			

Photo No. 4	Date 05/05/16		
Description Tank interior with ~ 2 ft of liquid, assumed to be water.			

Photographic Log





Client Name: Wisconsin Department of Transportation (WisDOT)		Site Location: STH 38 (Northwestern Avenue), Golf Avenue to Memorial Drive, Racine, Racine County, Wisconsin	Project No.: WisDOT: 2290-17-70 TRC: 243216.0000.0000
Photo No. 5	Date		
Description Tank after removal from subsurface.			

Photo No. 6	Date		
Description Close-up of steel tank showing corrosion and cm-scale holes.			



Photographic Log

Client Name:		Site Location:	Project No.:
Wisconsin Department of Transportation (WisDOT)		STH 38 (Northwestern Avenue), Golf Avenue to Memorial Drive, Racine, Racine County, Wisconsin	WisDOT: 2290-17-70 TRC: 243216.0000.0000
Photo No.	Date		
7	5/5/2016		
Description			
Cavity after tank removal, before soil excavation.			
Photo No.	Date		
8	5/6/2016		
Description			
Excavation after two loads of soil were removed. A total of 42.93 tons of soil were removed from the area surrounding the USTs.			

Appendix D

Tank Disposal Documentation

SGS Environmental Contracting, LLC



UST / AST Removal

N2570 Daytona Drive
MERRILL, WI 54452
1-800-261-2803
715-539-2803
Fax 715-539-2661
Jay A. Schlueter
CELL (715) 218-1001
jay@sgs-env.com



REMEDIAION SYSTEM
CONSTRUCTION



CONTAMINATED SOIL
EXCAVATIONS



GEOPROBE SOIL BORING

CERTIFICATE OF UNDERGROUND STORAGE TANK DISPOSAL

On May 23rd, 2016 SGS Environmental Contracting LLC completed the removal of 2 Underground Storage Tanks: (2)- 1,000 gallon Leaded Gas UST's for:

*WDOT #2290-17-70 State St.
1730 State St.
Racine WI 53404*

Water product was pumped on site and disposed of by:

*Chief Liquid Waste, INC.
210 Tower Rd.
Winneconne WI 54986*

1 drum of sludge was left on site for others to handle.


Bobbie Jo Hoffman


Office Manager

SGS Environmental Contracting LLC, N2570 Daytona Drive, Merrill, WI 54452
715.539.2803 Fax 715.539.2661 jay@sgs-env.com

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number		2. Page 1 of 1		3. Emergency Response Phone (800) 842-9792 (AWC)		4. Manifest Tracking Number 015592760 JJK			
		5. Generator's Name and Mailing Address D.O.T. Project #2290-17-70 1730 State St Racine, WI 53404 Generator's Site Address (if different than mailing address)								6. Transporter 1 Company Name Advanced Waste Carriers, Inc. (AWC)	
6. Transporter 1 Company Name Advanced Waste Carriers, Inc. (AWC)								U.S. EPA ID Number WI0000815381			
7. Transporter 2 Company Name								U.S. EPA ID Number			
8. Designated Facility Name and Site Address Advanced Waste Services - Advanced Waste Services, Inc. 3801L West McKinley Ave Milwaukee, WI 53208 Facility's Phone: 414-342-1852								U.S. EPA ID Number WI000136572			
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit WL/Vol.	13. Waste Codes					
		No.	Type								
	1. Non RCRA regulated, Non DOT hazardous Liquid material	001	TT	6000	G	NONE					
	2.										
	3.										
	4.										
14. Special Handling Instructions and Additional Information Profile #1: 41464959-0-2 / 3-AWS, Inc.								Trailer # 552 Emergency Response Guide On-board Site arrival time 1 PM Site departure time 1:45 PM www.advancedwasteservices.com			
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.											
Generator's/Offeror's Printed/Typed Name George Frick								Signature <i>[Signature]</i>		Month Day Year 5 5 16	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit _____ Date leaving U.S.: _____											
17. Transporter Acknowledgment of Receipt of Materials											
Transporter 1 Printed/Typed Name Samal Belas								Signature <i>[Signature]</i>		Month Day Year 5 5 16	
Transporter 2 Printed/Typed Name								Signature		Month Day Year	
18. Discrepancy											
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection											
Manifest Reference Number: _____ U.S. EPA ID Number _____											
18b. Alternate Facility (or Generator) _____ U.S. EPA ID Number _____											
Facility's Phone: _____											
18c. Signature of Alternate Facility (or Generator) _____ Month Day Year _____											
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)											
1. _____			2. _____			3. _____			4. _____		
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a											
Printed/Typed Name IGNY SCHMITZ								Signature <i>[Signature]</i>		Month Day Year 05 10 16	

Appendix E

Tank Closure Checklist and Inventory Forms

	Wisconsin Department of Agriculture, Trade and Consumer Protection Bureau of Weights and Measures, Permits and Licensing P.O. Box 7837 Madison, WI 53707-7837 (608) 224-4942	FOR OFFICE USE ONLY Wis. Admin. Code §ATCP 93.560
TANK SYSTEM SERVICE AND CLOSURE ASSESSMENT REPORT		

CHECK ONE: UNDERGROUND ABOVEGROUND

FOR PORTIONS OF THE FORM THAT DO NOT APPLY, CHECK THE 'N/A' BOX

Complete One Form for Each System Service Event

The information you provide may be used for purposes other than for which it was originally intended (s. 15.04 (1) (m), Wis. Stats.)

Part A – To be completed by contractor performing repair or closure

A. TYPE OF SERVICE CLOSURE REPAIR/UPGRADE CHANGE-IN-SERVICE
 Indicate portion of system being serviced if a repair, upgrade or change-in-service is being performed
 Remote fill Tank Piping Transition/containment sump Spill bucket Dispenser

B. IDENTIFICATION (Please Print)

1. Facility Name WDOT State St. #2290-17-70		2. Owner Name Wisconsin Department of Transportation	
Facility Street Address (not P.O. Box) 1730 State St.		3. Contact Name _____ Job Title _____	
Municipality Racine		Mailing Address P.O. Box 7965 Rm. 451	
<input checked="" type="checkbox"/> City <input type="checkbox"/> Village <input type="checkbox"/> Town of:		Post Office Madison WI 53707	State _____ Zip Code _____
Zip Code 53404	County Racine	County Dane	Telephone No. (include area code) (608) 266-1476
4. Primary Service Contractor Section A above SGS Environmental Contracting LLC		Service Contractor Street Address N2570 Daytona Dr.	
Service Contractor Telephone No. (include area code) (715) 539-2803		Service Contractor City, State, Zip Code Merrill WI 54452	

C. TANK SYSTEM DETAIL (Complete for all service activities)

a Tank ID #	b Type of Closure ¹	c Tank Material of Construction	d Piping Material of Construction	e Tank Capacity (gallons)	f Contents ²	g Release - System Integrity Compromised (e.g. holes, cracks, loose connection, etc)?		h If "Yes" to "g", Then Specify Source & Cause of Release ⁵	
						<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	Source of Release ³	Cause of Release ⁴
	P	stee	steel	1000	LG	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N		
	P	stee	steel	1000	LG	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N		
						<input type="checkbox"/> Y	<input type="checkbox"/> N		
						<input type="checkbox"/> Y	<input type="checkbox"/> N		
						<input type="checkbox"/> Y	<input type="checkbox"/> N		
						<input type="checkbox"/> Y	<input type="checkbox"/> N		

1. Indicate type of closure: P = Permanent, TOS = Temporarily Out-of-Service, CIP = Closure In-Place
 2. Indicate type of product: DL = Diesel, LG = Leaded Gasoline, UG = Unleaded Gasoline, FO = Fuel Oil, GH = Gasohol, AF = Aviation Fuel, K = Kerosene, PX = Premix, WO = Waste/Used Motor Oil, FCHZW = Flammable/Combustible Hazardous Waste, OC = Other Chemical (indicate the chemical name(s))

CAS number(s): _____
 3. Source of release: T = tank, P = piping, D = dispenser, STP = submersible turbine pump, DP = delivery problem, O = other, UNK = Unknown
 4. Cause of release: S = spill, O = overflow, POMD = physical or mechanical damage, C = corrosion, IP = installation problem, O = other, UNK = Unknown
 5. Has release been reported to the Department of Natural Resources? Yes No Release not evident at this time

D. CLOSURES (Check applicable box at right in response to all statements in section D)

Written notification was provided to the local agent 5 days in advance of closure date. Y N

All local permits were obtained before beginning closure. Y N NA

UST Form TR-WM-137 or AST Form TR-WM-118 filed by owner with the DATCP indicating closure. Y N NA

NOTE: TANK INVENTORY FORM TR-WM-137 or TR-WM-118 SIGNED BY THE OWNER MUST BE SUBMITTED WITH EACH CLOSURE or CHANGE-IN-SERVICE CHECKLIST

D.1 TEMPORARILY OUT-OF-SERVICE

	Remover Verified	Inspector Verified	NA
1. Product removed.			
a. Product lines drained into tank (or other container) and liquid removed, and	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> NA
b. All product removed to bottom of suction line, OR	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> NA
c. All product removed to within 1" of bottom.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> NA
2. Fill pipe, gauge pipe, tank truck vapor recovery fittings, and vapor return lines capped.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> NA
3. All product lines at the islands or pumps located elsewhere are removed and capped, OR	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> NA
4. Dispensers/pumps left in place but locked and power disconnected.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> NA
5. Vent lines left open.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> NA
6. Inventory form filed indicating temporarily out-of-service (TOS) closure.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> NA

D.2. CLOSURE BY REMOVAL OR IN-PLACE

1. General Requirements

a. Product from piping drained into tank (or other container).	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> NA
b. Piping disconnected from tank and removed.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> NA
c. All liquid and residue removed from tank using explosion-proof pumps or hand pumps.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> NA
d. All pump motors and suction hoses bonded to tank or otherwise grounded.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> NA
e. Fill pipes, gauge pipes, vapor recovery connections, submersible pumps and other fixtures removed.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> NA
f. Vent lines left connected until tanks purged.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> NA
g. Tank openings temporarily plugged so vapors exit through vent.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> NA
h. Tank atmosphere reduced to 10% of the lower flammable range (LEL) - see Section E.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> NA

2. Specific Closure-by-Removal Requirements

a. Tank removed from excavation after PURGING/INERTING, placed on level ground and blocked to prevent movement.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> NA
b. Tank cleaned before being removed from site.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> NA
c. Tank labeled in 2" high letters after removal but before being moved from site.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> NA
NOTE: COMPLETE TANK LABELING SHOULD INCLUDE WARNING AGAINST REUSE; FORMER CONTENTS; VAPOR STATE; VAPOR FREEING TREATMENT; DATE.			
d. Tank vent hole (1/8" in uppermost part of tank) installed prior to moving the tank from site.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> NA
e. Site security is provided while the excavation is open.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> NA

3. Specific Closure-In-Place Requirements

NOTE: CLOSURES IN-PLACE ARE ONLY ALLOWED WITH THE PRIOR WRITTEN APPROVAL OF THE DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION (DATCP) OR LOCAL AGENT.

a. Tank properly cleaned to remove all sludge and residue.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> NA
b. Solid inert material (sand, cyclone boiler slag, or pea gravel recommended) introduced and tank filled.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> NA
c. Vent line disconnected or removed.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> NA
d. Inventory form filed by owner with the DATCP indicating closure in-place.	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> NA

E. REPAIR, UPGRADE OR CHANGE-IN-SERVICE

Written notification was provided to the local agent 5 days in advance of service date.

All local permits were obtained before beginning service.

Form TR-WM-137 or TR-WM-118 filed by owner with the DATCP indicating change-in-service.

Y N NA
 Y N NA
 Y N NA

F. METHOD OF VAPOR FREEING OF TANK

- Displacement of vapors by eductor or diffused air blower.
 - Eductor driven by compressed air, bonded and drop tube left in place; vapors discharged minimum of 12 feet above ground.
 - Diffused air blower bonded and drop tube removed. Air pressure not exceeding 5 psig.
- Inert gas using dry ice or liquid carbon dioxide.
- Inert gas using CO₂ or N₂. **NOTE: INERT GASSES PRODUCE AN OXYGEN DEFICIENT ATMOSPHERE. LEL METERS MAY NOT FUNCTION ACCURATELY. THE TANK MAY NOT BE ENTERED IN THIS STATE WITHOUT SPECIAL EQUIPMENT.**
 - Gas introduced through a single opening at a point near the bottom of the tank at the end of the tank opposite the vent.
 - Gas introduced under low pressure not to exceed 5 psig to reduce static electricity. Gas introducing device grounded.
- Readings of 10% or less of the lower flammable range (LEL) or 0% oxygen obtained before removing tank from ground.
- Tank atmosphere monitored for flammable or combustible vapor levels prior to and during cleaning and cutting.
- Calibrate combustible gas indicator and/or oxygen meter prior to use. Drop tube removed prior to checking atmosphere. Tank space monitored at bottom, middle and upper portion of tank.

G. REMOVER/CLEANER INFORMATION

George Frick _____ George Frick _____ 42191 _____ 5-23-16
Remover/Cleaner Name (print) Remover/Cleaner Signature Certification No. Date Signed

I attest that the procedures and information which I have provided as the tank closure contractor are correct and comply with ATCP 93.

Company expected to perform soil contamination assessment _____

H. INSPECTOR INFORMATION

Inspector Name (print) _____ Inspector Signature _____ Inspector Cert # _____ LPO Agency # _____

FDID # For Location Where Inspection Performed _____ Inspector Telephone Number _____ Date Signed _____

Part B – To be completed by environmental professional

Submit original Part B to the WDNR along with a copy of Part A

I. TANK-SYSTEM SITE ASSESSMENT (TSSA)

Site Name: Martinizing Drycleaning

Address: 1730 State Street

Note: Site name and address must match with Part A Section 1.

To determine if a TSSA is required, see SPS 310 and section II part B of ASSESSMENT AND REPORTING OF SUSPECTED AND OBVIOUS RELEASES FROM UNDERGROUND AND ABOVEGROUND STORAGE TANK SYSTEMS.

If a TSSA is required, then follow the procedures detailed in ASSESSMENT AND REPORTING OF SUSPECTED AND OBVIOUS RELEASES FROM UNDERGROUND AND ABOVEGROUND STORAGE TANK SYSTEMS.

1. Site Information

a. Has there been a previously documented release at this site? Y N

If yes, provide the PECFA # _____, or DNR BRRT's # 02-52-549890.

b. Number of active tanks¹ at facility prior to completion of current services USTs _____ ASTs _____.

(NOTE 1: Do not include previously closed systems or system components.)

c. Excavation/trench dimensions (in feet). (Photos must be provided.)

EXCAVATION/TRENCH #	LENGTH	WIDTH	DEPTH
<u>1</u>	<u>12'</u>	<u>20'</u>	<u>8'</u>

2. Visual Excavation/Trench Inspection (Photos must be provided for "Yes" responses, except item b.)

Do any of the following conditions exist in or about the excavation(s)?

a. Stained soils: Y N b. Petroleum odor: Y N c. Water in excavation/trench: Y N

d. Free product in the excavation/trench: Y N e. Sheen or free product on water: Y N

3. Geology/Hydrogeology

a. Depth to groundwater > 8' feet b. Indicate type of geology² C

(Note 2: Use these symbols individually or in combination as appropriate: C = Clay, SLT = Silt, S = Sand, Gr = Gravel)

4. Receptors

a. Water supply well(s) within 250 feet of the facility? Y N If yes, specify _____

b. Surface water(s) within 1000 feet of the facility? Y N If yes, specify _____

5. Sampling

a. Follow the procedures detailed in ASSESSMENT AND REPORTING OF SUSPECTED AND OBVIOUS RELEASES FROM UNDERGROUND AND ABOVEGROUND STORAGE TANK SYSTEMS.

b. Complete Tables 1 and 2 as appropriate. (Attach chain-of-custody and laboratory analytical reports.)

c. Attach a detailed map of site features and sample locations.

J. NOTE RELEVANT OBSERVATIONS, SPECIFIC PROBLEMS OR CONCERNS BELOW

2X TANKS REMOVED (8' 10" LENGTH, 4' 6" DIAMETER). ~2' OF WATER WAS PRESENT PRIOR TO REMOVAL. PUMPED OFF. COLLECTED ~25 GALLONS OF SOLIDS FROM TANKS. CONTAINERIZED. SOME SMALL HOLES NOTED IN TANKS. STRONG ODORS, STAINING PRESENT AT TANKS (SOIL ADJACENT). PID RESULTS OF ~1/300 IU. ODORS/STAINING/PID READINGS STRONGER HERE THAN ADJACENT CONTAMINATED SOIL. REMOVED 2X LOADS (~40 TONS) OF SOIL, LANDFILLED, COLLECTED ASSESSMENT SAMPLES. EXCAVATION LIMITED BY MANHOLE/STORM, MONITORING WELL & PRIVATE PROPERTY.

TABLE 1 SOIL FIELD SCREENING & GRO/DRO LABORATORY ANALYTICAL RESULTS-FOR PETROLEUM PRODUCTS

Sample ID #	Sample Location & Soil/Geologic Description	Sample Collection Method				Depth Below Tank/Piping (feet)	Field Screening Result (ppm)
		Grab	Shelby Tube	Direct Push	Split Spoon		
SW 1	SEE ATTACHED REPORT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	114.5
SW 2	OR SANDY CLAY w/	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	59.4
SW 3	TRC GILAVEL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	1355
SW 4		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	1900
SW 5		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	742
SW 6		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	1867
SW 7		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	1794
SW 8		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	1335
TB 1		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4'	839
TB 2		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4'	800
TB 3		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4'	684
TB 4		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4'	1070
TB 5		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4'	490
TB 6		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4'	820

TABLE 2 SOIL LABORATORY ANALYTICAL RESULTS-FOR PETROLEUM PRODUCTS

Sample ID #	BENZENE	TOLUENE	ETHYLBENZENE	MTBE	TRIMETHYL - BENZENES (TOTAL)	XYLENES (TOTAL)	NAPHTHALENE	CHLORINATED SOLVENTS
	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
	SEE ATTACHED TABLE							

K. TANK-SYSTEM SITE ASSESSMENT INFORMATION

- As a tank-system site assessor certified under Wis. Admin. Code section SPS 305.83, it is my opinion that there is no indication of a release of a regulated substance to the environment.
- Sampling at the site indicates there has been a release to the environment. Pursuant to Wis. Admin. Code section SPS 310.585 (2) (a) and Wis. Stats. section 292.11 (2) (a), the owner or operator or contractor performing work under chapter SPS 310 shall immediately report any release of a regulated substance to the Wisconsin Department of Natural Resources. Failure to do so may result in forfeitures of a minimum of \$10 and a maximum of \$5000 for each violation under Wis. Stats. section 101.09 (5). Each day of continued violation and each tank are treated as separate offenses.

WARREN TYLER STAPEL Tank-System Site Assessor Name (print)
 [Signature] Tank-System Site Assessor Signature
 1138565 Certification Number #
262-825-2045 Tank-System Site Assessor Telephone Number
 06/01/2016 Date Signed
 TRC ENVIRONMENTAL Company Name



Wisconsin Department of Agriculture, Trade and Consumer Protection
Bureau of Weights and Measures, Storage Tank Regulation
P.O. Box 7837
Madison, WI 53707-7837
(608) 224-4942

FOR OFFICE USE ONLY

TDID#:
Reg Obj #:
Wis. Admin. Code §ATCP 93.140

UNDERGROUND FLAMMABLE/COMBUSTIBLE/HAZARDOUS LIQUID STORAGE TANK REGISTRATION

Underground tanks in Wisconsin that have stored or currently store petroleum or regulated substances must be registered. A separate form is needed for each tank. Send each completed form to the agency designated above. Have you previously registered this tank by submitting a form? Yes No
If yes, are you correcting/updating information only? Yes No

Personal information you provide may be used for purposes other than that for which it was originally collected (s. 15.04 (1)(m) Wis. Stats.)

This registration applies to a tank status that is (check one):
 In Use
 Newly Installed
 Abandoned with Product
 Abandoned without Product (empty)
 Closed - Tank Removed
 Closed - Filled with Inert Materials
 Abandon with Water
 Temporarily Out of Service - Provide Date: _____
 Ownership Change (Indicate new owner name in block 2-- attach deed) _____
 Fire Department providing fire coverage where tank is located:
 City Village
 Town: 5101-Racine

A. IDENTIFICATION (Please Print)

1. Tank Site Name: WDOT- State St. #2290-17th Site Street Address: 1730 State St. Site Telephone Number: _____
 City Village Town: Racine State: WISCONSIN Zip Code: 53404 County: Racine
 2. Tank Owner Legal Name: WDOT Mailing Address: P.O. Box 79165 RM451 Telephone Number: (608) 266-1476
 City Village Town: Madison State: WI Zip Code: 53707-7965 County: Dane
 3. Property Owner Name (if different than tank owner): _____ Property Owner Address if different than #1: _____
 4. Class A Operator Name: _____ DOB: _____ Training Method: _____ Certification #: _____
 5. Class B Operator Name: _____ DOB: _____ Training Method: _____ Certification #: _____

B. Site ID #: _____ **Facility ID #:** _____ **Customer ID #:** _____
C. Tank Capacity (gallons): 1000 **Tank Age (age or date installed):** _____ **Vehicle fueling:** Yes No

D. LAND OWNER TYPE (check one) Refer to back
 County State Federal Leased Federal Owned Tribal Nation Municipal Other Government Private

E. OCCUPANCY TYPE (check one) Refer to back
 Retail Fuel Sales Bulk Storage Terminal Storage Mercantile/Commercial Industrial Residential School
 Agricultural (crop or livestock production) Backup or Emergency Generator Gov't Fleet Utility Other (specify): _____

F. Tank Construction:
 Bare Steel Coated Steel Stainless steel Steel - Fiberglass Reinforced Plastic Composite
 Fiberglass Unknown Other (specify): _____ Lined (date): _____
Overfill Protection? Yes No
Spill Containment? Yes No

G. Tank Cathodic Protection: Sacrificial Anodes Impressed Current N/A **Tank Double Walled?** Yes No

H. Primary Tank Leak Detection Method:
 Automatic tank gauging Interstitial monitoring ⇒ Electronic: Yes No Inventory control and tightness testing
 Manual tank gauging (only for tanks of 1,000 gallons or less) Statistical Inventory Reconciliation (SIR) Unknown

I. Piping Construction:
 Bare Steel Coated Steel Stainless Steel Fiberglass Flexible Copper Unknown NA Other _____

J. Piping Cathodic Protection: Sacrificial Anodes Impressed Current N/A **Pipe Double Walled?** Yes No

K. Primary Piping System Type: Pressurized piping with ⇒ A. Pump auto shutoff - ELLD; B. flow restrictor - MLLD Unknown
 Suction piping with check valve at tank Suction piping with check valve at pump and inspectable Not needed if waste oil

L. Piping Leak Detection Method: Interstitial monitoring ⇒ Electronic: NO YES ⇒ Sump or cable sensor Yes No
 Tightness testing Electronic line monitor - ELLD SIR Not required Unknown

M. TANK CONTENTS (Current, or previous product (if tank now empty))
 Leaded Unleaded Gasohol E85 Diesel Bio-diesel Aviation Premix Fuel Oil Kerosene Unknown
 New Oil New oil - Low FP Waste/Used Motor Oil Hazardous Waste/Interface* Empty* Sand/Gravel/Slurry*
 Other (specify): _____ Chemical* Name _____ CAS #: _____

* NOT PECFA eligible.

N. If Tank Closed, Abandoned or Out of Service
 Give date (month/day/yr): 5-5-16 **Geo Latitude:** 42°44'0.064"N **Geo Longitude:** 87°48'7.999"W
 Has a site assessment been completed? (see reverse side for details) Yes No

Tank Owner Legal Name (please print): Wisconsin Dept of Transportation E-mail Address: Sharlene.tebeest@dot.wi.gov

Tank Owner Signature (Note: By signing, signer is accepting legal and financial responsibility for the storage tank system.)
Sharlene Tebeest for WISDOT Date: 5/12/16

Note: Refer to comments on reverse side of form.



Wisconsin Department of Agriculture, Trade and Consumer Protection
Bureau of Weights and Measures, Storage Tank Regulation
P.O. Box 7837
Madison, WI 53707-7837
(608) 224-4942

FOR OFFICE USE ONLY
TDID#:
Reg Obj #:
Wis. Admin. Code §ATCP 93.140

UNDERGROUND FLAMMABLE/COMBUSTIBLE/HAZARDOUS LIQUID STORAGE TANK REGISTRATION

Underground tanks in Wisconsin that have stored or currently store petroleum or regulated substances must be registered. A separate form is needed for each tank. Send each completed form to the agency designated above. Have you previously registered this tank by submitting a form? Yes No
If yes, are you correcting/updating information only? Yes No

Personal information you provide may be used for purposes other than that for which it was originally collected (s. 15.04 (1)(m) Wis. Stats.)

This registration applies to a tank status that is (check one):
 In Use
 Newly Installed
 Abandoned with Product
 Abandoned without Product (empty)
 Closed - Tank Removed
 Closed - Filled with Inert Materials
 Abandon with Water
 Temporarily Out of Service - Provide Date: _____
 Ownership Change (Indicate new owner name in block 2—attach deed)
 Fire Department providing fire coverage where tank is located:
 City Village
 Town: 5101 Racine

A. IDENTIFICATION (Please Print)

1. Tank Site Name: WDOT State St #2290-17-70 Site Street Address: 1730 State St. Site Telephone Number: _____
 City Village Town: Racine State: WISCONSIN Zip Code: 53404 County: Racine
 2. Tank Owner Legal Name: WDOT- Mailing Address: P.O. Box 7965 Rm 451 Telephone Number: (608) 266-1476
 City Village Town: Madison State: WI Zip Code: 53707-7965 County: Dane
 3. Property Owner Name (if different than tank owner): _____ Property Owner Address if different than #1: _____
 4. Class A Operator Name: _____ DOB: _____ Training Method: _____ Certification #: _____
 5. Class B Operator Name: _____ DOB: _____ Training Method: _____ Certification #: _____

B. Site ID #: _____ **Facility ID #:** _____ **Customer ID #:** _____

C. Tank Capacity (gallons): 1000 **Tank Age (age or date installed):** _____ **Vehicle fueling:** Yes No

D. LAND OWNER TYPE (check one) Refer to back
 County State Federal Leased Federal Owned Tribal Nation Municipal Other Government Private

E. OCCUPANCY TYPE (check one) Refer to back
 Retail Fuel Sales Bulk Storage Terminal Storage Mercantile/Commercial Industrial Residential School
 Agricultural (crop or livestock production) Backup or Emergency Generator Gov't Fleet Utility Other (specify): _____

F. Tank Construction:
 Bare Steel Coated Steel Stainless steel Steel - Fiberglass Reinforced Plastic Composite
 Fiberglass Unknown Other (specify): _____ Lined (date): _____
Overfill Protection? Yes No
Spill Containment? Yes No

G. Tank Cathodic Protection: Sacrificial Anodes Impressed Current N/A **Tank Double Walled?** Yes No

H. Primary Tank Leak Detection Method:
 Automatic tank gauging Interstitial monitoring → Electronic: Yes No Inventory control and tightness testing
 Manual tank gauging (only for tanks of 1,000 gallons or less) Statistical Inventory Reconciliation (SIR) Unknown

I. Piping Construction:
 Bare Steel Coated Steel Stainless Steel Fiberglass Flexible Copper Unknown NA Other _____

J. Piping Cathodic Protection: Sacrificial Anodes Impressed Current N/A **Pipe Double Walled?** Yes No

K. Primary Piping System Type: Pressurized piping with → A. Pump auto shutoff - ELLD; B. flow restrictor - MLLD Unknown
 Suction piping with check valve at tank Suction piping with check valve at pump and inspectable Not needed if waste oil

L. Piping Leak Detection Method: Interstitial monitoring → Electronic: NO YES → Sump or cable sensor Yes No
 Tightness testing Electronic line monitor - ELLD SIR Not required Unknown

M. TANK CONTENTS (Current, or previous product (if tank now empty))
 Leaded Unleaded Gasohol E85 Diesel Bio-diesel Aviation Premix Fuel Oil Kerosene Unknown
 New Oil New oil - Low FP Waste/Used Motor Oil Hazardous Waste/Interface* Empty* Sand/Gravel/Slurry*
 Other (specify): _____ Chemical* Name _____ CAS #: _____

* NOT PECFA eligible.

N. If Tank Closed, Abandoned or Out of Service
 Give date (mo/day/yr): 5-5-16
 Geo Latitude: 42° 44' 0.033" N | Geo Longitude: 87° 48' 7.956" W
 Has a site assessment been completed? (see reverse side for details) Yes No

Tank Owner Legal Name (please print): Wisconsin Dept of Transportation E-mail Address: sharlene.tebest@dot.wi.gov

Tank Owner Signature (Note: By signing, signer is accepting legal and financial responsibility for the storage tank system.)
Sharlene Tebest obo WisDOT Date: 5/12/16

Note: Refer to comments on reverse side of form.

Appendix F

Soil Disposal Documentation

Detail Contract Activity Report

January 01, 2016 to June 01, 2016

Facility: KESTREL HAWK LANDFILL

All Ticket Types
History and Waiting

Specific Contract: 3063164864

3063164864

Ticket Date	Facility & Ticket Number	Customer	Truck	Material	Contract Rate	Billing Quantity	Ordered Quantity	Minimum Quantity	Maximum Quantity	Material Total	Tax Total	Total
04/29/2016	I 01 978728	333356 - Buteyn-Peterson Construction Co.Ir	J90	SW-CONT SOIL	26.50	F 21.14 TN	0.00	\$106.00	\$0.00	\$560.21	\$0.00	\$560.21
04/29/2016	I 01 978739	333356 - Buteyn-Peterson Construction Co.Ir	J90	SW-CONT SOIL	26.50	F 21.94 TN	0.00	\$106.00	\$0.00	\$581.41	\$0.00	\$581.41
04/29/2016	I 01 978740	333356 - Buteyn-Peterson Construction Co.Ir	K71	SW-CONT SOIL	26.50	F 25.30 TN	0.00	\$106.00	\$0.00	\$670.45	\$0.00	\$670.45
05/02/2016	I 01 978772	333356 - Buteyn-Peterson Construction Co.Ir	J90	SW-CONT SOIL	26.50	F 19.74 TN	0.00	\$106.00	\$0.00	\$523.11	\$0.00	\$523.11
05/02/2016	I 01 978774	333356 - Buteyn-Peterson Construction Co.Ir	JJ03	SW-CONT SOIL	26.50	F 20.33 TN	0.00	\$106.00	\$0.00	\$538.75	\$0.00	\$538.75
05/02/2016	I 01 978781	333356 - Buteyn-Peterson Construction Co.Ir	J90	SW-CONT SOIL	26.50	F 19.21 TN	0.00	\$106.00	\$0.00	\$509.07	\$0.00	\$509.07
05/02/2016	I 01 978808	333356 - Buteyn-Peterson Construction Co.Ir	PET3438	SW-CONT SOIL	26.50	F 25.96 TN	0.00	\$106.00	\$0.00	\$687.94	\$0.00	\$687.94
05/02/2016	I 01 978811	333356 - Buteyn-Peterson Construction Co.Ir	J90	SW-CONT SOIL	26.50	F 12.11 TN	0.00	\$106.00	\$0.00	\$320.92	\$0.00	\$320.92
05/02/2016	I 01 978837	333356 - Buteyn-Peterson Construction Co.Ir	PET3438	SW-CONT SOIL	26.50	F 13.10 TN	0.00	\$106.00	\$0.00	\$347.15	\$0.00	\$347.15
05/02/2016	I 01 978866	333356 - Buteyn-Peterson Construction Co.Ir	PET3439	SW-CONT SOIL	26.50	F 18.83 TN	0.00	\$106.00	\$0.00	\$499.00	\$0.00	\$499.00
05/02/2016	I 01 978887	333356 - Buteyn-Peterson Construction Co.Ir	J90	SW-CONT SOIL	26.50	F 15.26 TN	0.00	\$106.00	\$0.00	\$404.39	\$0.00	\$404.39
05/03/2016	I 01 978896	333356 - Buteyn-Peterson Construction Co.Ir	J90	SW-CONT SOIL	26.50	F 18.72 TN	0.00	\$106.00	\$0.00	\$496.08	\$0.00	\$496.08
05/03/2016	I 01 978902	333356 - Buteyn-Peterson Construction Co.Ir	KLS964	SW-CONT SOIL	26.50	F 19.08 TN	0.00	\$106.00	\$0.00	\$505.62	\$0.00	\$505.62
05/03/2016	I 01 978930	333356 - Buteyn-Peterson Construction Co.Ir	PET3439	SW-CONT SOIL	26.50	F 11.83 TN	0.00	\$106.00	\$0.00	\$313.50	\$0.00	\$313.50
05/06/2016	I 01 979193	333356 - Buteyn-Peterson Construction Co.Ir	PET3440	SW-CONT SOIL	26.50	F 20.28 TN	0.00	\$106.00	\$0.00	\$537.42	\$0.00	\$537.42
05/06/2016	I 01 979194	333356 - Buteyn-Peterson Construction Co.Ir	PET3441	SW-CONT SOIL	26.50	F 22.65 TN	0.00	\$106.00	\$0.00	\$600.23	\$0.00	\$600.23

Soil excavated from area surrounding USTs: two loads of soil removed on 5/6/2016 totaling 42.93 tons.

Tickets Reported: 16	Items Reported: 16	Contract Totals: \$8,095.25 \$0.00 \$8,095.25
----------------------	--------------------	-----------------------------------------------

Material Summary	Weight		Volume		Count		Billing Quantity	Material Total	Tax Total	Total
	Inbound	Outbound	Inbound	Outbound	Inbound	Outbound				
VG - SW-CONT SOIL	305.48	0.00 TN	255.00	0.00 YD	0.00	0.00 EA	305.48 TN	\$8,095.25	\$0.00	\$8,095.25

Tickets Reported: 16	Items Reported: 16	Cash Totals: \$0.00 \$0.00 \$0.00
		Invoice Totals: \$8,095.25 \$0.00 \$8,095.25
		Report Totals: \$8,095.25 \$0.00 \$8,095.25

Appendix G

Laboratory Analytical Report

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-111307-1

Client Project/Site: STH 38 Tank Removal 257062.0000.0000

For:
TRC Environmental Corporation.
150 N. Patrick Blvd.
Suite 180
Brookfield, Wisconsin 53045

Attn: Mr. Tyler Stapel



Authorized for release by:
5/19/2016 5:16:51 PM

Sandie Fredrick, Project Manager II
(920)261-1660
sandie.fredrick@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Job ID: 500-111307-1

Laboratory: TestAmerica Chicago

Narrative

**Job Narrative
500-111307-1**

Comments

No additional comments.

Receipt

The samples were received on 5/7/2016 11:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.9° C.

GC/MS VOA

Method(s) 8260B: The following samples were diluted due to the abundance of non-target analytes: SW4 (500-111307-4), SW8 (500-111307-8) and TB6 (500-111307-14). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: The following sample was diluted to bring the concentration of target analytes within the calibration range: SW6 (500-111307-6). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: SW1

Lab Sample ID: 500-111307-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.5		1.0	0.47	mg/Kg	1	☼	6010B	Total/NA
Barium	11	B	1.0	0.19	mg/Kg	1	☼	6010B	Total/NA
Chromium	3.6		1.0	0.17	mg/Kg	1	☼	6010B	Total/NA
Lead	6.1		0.51	0.25	mg/Kg	1	☼	6010B	Total/NA
Selenium	1.1		1.0	0.50	mg/Kg	1	☼	6010B	Total/NA
Silver	0.15	J	0.51	0.12	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: SW2

Lab Sample ID: 500-111307-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.4		0.97	0.45	mg/Kg	1	☼	6010B	Total/NA
Barium	15	B	0.97	0.18	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.18	J	0.19	0.056	mg/Kg	1	☼	6010B	Total/NA
Chromium	4.5		0.97	0.17	mg/Kg	1	☼	6010B	Total/NA
Lead	5.2		0.48	0.24	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.74	J	0.97	0.48	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: SW3

Lab Sample ID: 500-111307-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	72		66	24	ug/Kg	50	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	69		66	25	ug/Kg	50	☼	8260B	Total/NA
Benzene	120		17	9.7	ug/Kg	50	☼	8260B	Total/NA
Isopropylbenzene	890		66	25	ug/Kg	50	☼	8260B	Total/NA
Naphthalene	62	J	66	22	ug/Kg	50	☼	8260B	Total/NA
n-Butylbenzene	690		66	26	ug/Kg	50	☼	8260B	Total/NA
N-Propylbenzene	1900		66	27	ug/Kg	50	☼	8260B	Total/NA
p-Isopropyltoluene	310		66	24	ug/Kg	50	☼	8260B	Total/NA
sec-Butylbenzene	480		66	26	ug/Kg	50	☼	8260B	Total/NA
Arsenic	4.4		1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Barium	34	B	1.1	0.19	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.23		0.21	0.062	mg/Kg	1	☼	6010B	Total/NA
Chromium	13		1.1	0.18	mg/Kg	1	☼	6010B	Total/NA
Lead	9.3		0.53	0.26	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.079		0.019	0.010	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SW4

Lab Sample ID: 500-111307-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	110		32	18	ug/Kg	100	☼	8260B	Total/NA
Isopropylbenzene	1300		130	48	ug/Kg	100	☼	8260B	Total/NA
N-Propylbenzene	2000		130	52	ug/Kg	100	☼	8260B	Total/NA
p-Isopropyltoluene	320		130	46	ug/Kg	100	☼	8260B	Total/NA
sec-Butylbenzene	740		130	50	ug/Kg	100	☼	8260B	Total/NA
Arsenic	5.6		1.1	0.49	mg/Kg	1	☼	6010B	Total/NA
Barium	33	B	1.1	0.19	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.22		0.21	0.062	mg/Kg	1	☼	6010B	Total/NA
Chromium	14		1.1	0.18	mg/Kg	1	☼	6010B	Total/NA
Lead	9.7		0.53	0.26	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.53	J	1.1	0.53	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: SW4 (Continued)

Lab Sample ID: 500-111307-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.078		0.018	0.0094	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SW5

Lab Sample ID: 500-111307-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	52	J	73	26	ug/Kg	50	☼	8260B	Total/NA
Arsenic	7.2		1.2	0.54	mg/Kg	1	☼	6010B	Total/NA
Barium	78	B	1.2	0.21	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.24		0.23	0.068	mg/Kg	1	☼	6010B	Total/NA
Chromium	27		1.2	0.20	mg/Kg	1	☼	6010B	Total/NA
Lead	20		0.59	0.29	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.59	J	1.2	0.58	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.11		0.019	0.010	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SW6

Lab Sample ID: 500-111307-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trimethylbenzene	16000		130	51	ug/Kg	100	☼	8260B	Total/NA
Benzene	310		33	20	ug/Kg	100	☼	8260B	Total/NA
Isopropylbenzene	3000		130	51	ug/Kg	100	☼	8260B	Total/NA
Naphthalene	8800		130	45	ug/Kg	100	☼	8260B	Total/NA
n-Butylbenzene	4800		130	52	ug/Kg	100	☼	8260B	Total/NA
N-Propylbenzene	9600		130	55	ug/Kg	100	☼	8260B	Total/NA
p-Isopropyltoluene	880		130	48	ug/Kg	100	☼	8260B	Total/NA
sec-Butylbenzene	1200		130	53	ug/Kg	100	☼	8260B	Total/NA
Toluene	89		33	20	ug/Kg	100	☼	8260B	Total/NA
Xylenes, Total	360		67	29	ug/Kg	100	☼	8260B	Total/NA
1,2,4-Trimethylbenzene - DL	46000		1300	480	ug/Kg	1000	☼	8260B	Total/NA
Arsenic	5.4		1.0	0.46	mg/Kg	1	☼	6010B	Total/NA
Barium	42	B	1.0	0.18	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.31		0.20	0.058	mg/Kg	1	☼	6010B	Total/NA
Chromium	16		1.0	0.17	mg/Kg	1	☼	6010B	Total/NA
Lead	12		0.50	0.25	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.023		0.019	0.010	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SW7

Lab Sample ID: 500-111307-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	36		17	9.9	ug/Kg	50	☼	8260B	Total/NA
Isopropylbenzene	1200		68	26	ug/Kg	50	☼	8260B	Total/NA
Naphthalene	380		68	23	ug/Kg	50	☼	8260B	Total/NA
n-Butylbenzene	1500		68	26	ug/Kg	50	☼	8260B	Total/NA
N-Propylbenzene	3400		68	28	ug/Kg	50	☼	8260B	Total/NA
p-Isopropyltoluene	320		68	24	ug/Kg	50	☼	8260B	Total/NA
sec-Butylbenzene	730		68	27	ug/Kg	50	☼	8260B	Total/NA
Arsenic	4.6		1.0	0.48	mg/Kg	1	☼	6010B	Total/NA
Barium	35	B	1.0	0.19	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.27		0.21	0.060	mg/Kg	1	☼	6010B	Total/NA
Chromium	13		1.0	0.18	mg/Kg	1	☼	6010B	Total/NA
Lead	20		0.51	0.26	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: SW7 (Continued)

Lab Sample ID: 500-111307-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	0.59	J	1.0	0.51	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.12		0.017	0.0090	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SW8

Lab Sample ID: 500-111307-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Isopropylbenzene	89	J	130	51	ug/Kg	100	☼	8260B	Total/NA
N-Propylbenzene	240		130	55	ug/Kg	100	☼	8260B	Total/NA
Arsenic	4.5		0.99	0.46	mg/Kg	1	☼	6010B	Total/NA
Barium	55	B	0.99	0.18	mg/Kg	1	☼	6010B	Total/NA
Cadmium	1.2		0.20	0.058	mg/Kg	1	☼	6010B	Total/NA
Chromium	14		0.99	0.17	mg/Kg	1	☼	6010B	Total/NA
Lead	98		0.50	0.25	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.74	J	0.99	0.49	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.23		0.018	0.0095	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TB1

Lab Sample ID: 500-111307-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	440		16	9.4	ug/Kg	50	☼	8260B	Total/NA
Isopropylbenzene	650		64	25	ug/Kg	50	☼	8260B	Total/NA
n-Butylbenzene	300		64	25	ug/Kg	50	☼	8260B	Total/NA
N-Propylbenzene	1000		64	27	ug/Kg	50	☼	8260B	Total/NA
p-Isopropyltoluene	130		64	23	ug/Kg	50	☼	8260B	Total/NA
sec-Butylbenzene	280		64	26	ug/Kg	50	☼	8260B	Total/NA
Arsenic	4.2		1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Barium	39	B	1.1	0.20	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.26		0.21	0.062	mg/Kg	1	☼	6010B	Total/NA
Chromium	15		1.1	0.18	mg/Kg	1	☼	6010B	Total/NA
Lead	9.5		0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.65	J	1.1	0.53	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.027		0.017	0.0091	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TB2

Lab Sample ID: 500-111307-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	64		64	23	ug/Kg	50	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	83		64	24	ug/Kg	50	☼	8260B	Total/NA
Benzene	250		16	9.3	ug/Kg	50	☼	8260B	Total/NA
Isopropylbenzene	650		64	25	ug/Kg	50	☼	8260B	Total/NA
Naphthalene	330		64	21	ug/Kg	50	☼	8260B	Total/NA
N-Propylbenzene	1500		64	26	ug/Kg	50	☼	8260B	Total/NA
p-Isopropyltoluene	200		64	23	ug/Kg	50	☼	8260B	Total/NA
sec-Butylbenzene	270		64	25	ug/Kg	50	☼	8260B	Total/NA
Arsenic	4.6		1.0	0.46	mg/Kg	1	☼	6010B	Total/NA
Barium	33	B	1.0	0.18	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.25		0.20	0.058	mg/Kg	1	☼	6010B	Total/NA
Chromium	12		1.0	0.17	mg/Kg	1	☼	6010B	Total/NA
Lead	10		0.50	0.25	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.038		0.019	0.0097	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: TB3

Lab Sample ID: 500-111307-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trimethylbenzene	150		66	25	ug/Kg	50	☼	8260B	Total/NA
Benzene	510		16	9.6	ug/Kg	50	☼	8260B	Total/NA
Isopropylbenzene	650		66	25	ug/Kg	50	☼	8260B	Total/NA
Naphthalene	71		66	22	ug/Kg	50	☼	8260B	Total/NA
n-Butylbenzene	280		66	25	ug/Kg	50	☼	8260B	Total/NA
N-Propylbenzene	1200		66	27	ug/Kg	50	☼	8260B	Total/NA
p-Isopropyltoluene	170		66	24	ug/Kg	50	☼	8260B	Total/NA
sec-Butylbenzene	210		66	26	ug/Kg	50	☼	8260B	Total/NA
Xylenes, Total	36		33	14	ug/Kg	50	☼	8260B	Total/NA
Arsenic	15		1.1	0.50	mg/Kg	1	☼	6010B	Total/NA
Barium	35	B	1.1	0.20	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.22		0.22	0.062	mg/Kg	1	☼	6010B	Total/NA
Chromium	16		1.1	0.19	mg/Kg	1	☼	6010B	Total/NA
Lead	20		0.54	0.27	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.024		0.018	0.0094	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TB4

Lab Sample ID: 500-111307-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	130		67	24	ug/Kg	50	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	230		67	25	ug/Kg	50	☼	8260B	Total/NA
Benzene	1400		17	9.8	ug/Kg	50	☼	8260B	Total/NA
Isopropylbenzene	770		67	26	ug/Kg	50	☼	8260B	Total/NA
Naphthalene	120		67	22	ug/Kg	50	☼	8260B	Total/NA
n-Butylbenzene	280		67	26	ug/Kg	50	☼	8260B	Total/NA
N-Propylbenzene	1400		67	28	ug/Kg	50	☼	8260B	Total/NA
p-Isopropyltoluene	230		67	24	ug/Kg	50	☼	8260B	Total/NA
sec-Butylbenzene	260		67	27	ug/Kg	50	☼	8260B	Total/NA
Toluene	80		17	9.8	ug/Kg	50	☼	8260B	Total/NA
Xylenes, Total	64		33	15	ug/Kg	50	☼	8260B	Total/NA
Arsenic	4.0		1.0	0.48	mg/Kg	1	☼	6010B	Total/NA
Barium	41	B	1.0	0.19	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.28		0.21	0.060	mg/Kg	1	☼	6010B	Total/NA
Chromium	16		1.0	0.18	mg/Kg	1	☼	6010B	Total/NA
Lead	11		0.52	0.26	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.82	J	1.0	0.52	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.024		0.019	0.010	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TB5

Lab Sample ID: 500-111307-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	120		66	24	ug/Kg	50	☼	8260B	Total/NA
1,3,5-Trimethylbenzene	200		66	25	ug/Kg	50	☼	8260B	Total/NA
Benzene	920		17	9.7	ug/Kg	50	☼	8260B	Total/NA
Isopropylbenzene	730		66	25	ug/Kg	50	☼	8260B	Total/NA
Naphthalene	81		66	22	ug/Kg	50	☼	8260B	Total/NA
n-Butylbenzene	280		66	26	ug/Kg	50	☼	8260B	Total/NA
N-Propylbenzene	1500		66	27	ug/Kg	50	☼	8260B	Total/NA
p-Isopropyltoluene	170		66	24	ug/Kg	50	☼	8260B	Total/NA
sec-Butylbenzene	220		66	26	ug/Kg	50	☼	8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: TRC Environmental Corporation.
 Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: TB5 (Continued)

Lab Sample ID: 500-111307-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	40		17	9.7	ug/Kg	50	☼	8260B	Total/NA
Xylenes, Total	55		33	15	ug/Kg	50	☼	8260B	Total/NA
Arsenic	5.4		0.97	0.45	mg/Kg	1	☼	6010B	Total/NA
Barium	39	B	0.97	0.18	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.23		0.19	0.056	mg/Kg	1	☼	6010B	Total/NA
Chromium	16		0.97	0.17	mg/Kg	1	☼	6010B	Total/NA
Lead	9.7		0.49	0.24	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.024		0.017	0.0091	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: TB6

Lab Sample ID: 500-111307-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trimethylbenzene	110	J	130	51	ug/Kg	100	☼	8260B	Total/NA
Benzene	210		34	20	ug/Kg	100	☼	8260B	Total/NA
Isopropylbenzene	510		130	52	ug/Kg	100	☼	8260B	Total/NA
n-Butylbenzene	840		130	52	ug/Kg	100	☼	8260B	Total/NA
N-Propylbenzene	1300		130	56	ug/Kg	100	☼	8260B	Total/NA
p-Isopropyltoluene	190		130	49	ug/Kg	100	☼	8260B	Total/NA
sec-Butylbenzene	420		130	54	ug/Kg	100	☼	8260B	Total/NA
Arsenic	5.1		1.1	0.52	mg/Kg	1	☼	6010B	Total/NA
Barium	43	B	1.1	0.21	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.36		0.22	0.065	mg/Kg	1	☼	6010B	Total/NA
Chromium	15	V	1.1	0.19	mg/Kg	1	☼	6010B	Total/NA
Lead	23	F1	0.56	0.28	mg/Kg	1	☼	6010B	Total/NA
Selenium	0.73	J F1	1.1	0.56	mg/Kg	1	☼	6010B	Total/NA
Mercury	0.15		0.019	0.0097	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Method Summary

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
6010B	Metals (ICP)	SW846	TAL CHI
7471B	Mercury (CVAA)	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-111307-1	SW1	Solid	05/06/16 12:00	05/07/16 11:00
500-111307-2	SW2	Solid	05/06/16 12:00	05/07/16 11:00
500-111307-3	SW3	Solid	05/06/16 12:00	05/07/16 11:00
500-111307-4	SW4	Solid	05/06/16 12:00	05/07/16 11:00
500-111307-5	SW5	Solid	05/06/16 12:00	05/07/16 11:00
500-111307-6	SW6	Solid	05/06/16 12:00	05/07/16 11:00
500-111307-7	SW7	Solid	05/06/16 12:00	05/07/16 11:00
500-111307-8	SW8	Solid	05/06/16 12:00	05/07/16 11:00
500-111307-9	TB1	Solid	05/06/16 12:00	05/07/16 11:00
500-111307-10	TB2	Solid	05/06/16 12:00	05/07/16 11:00
500-111307-11	TB3	Solid	05/06/16 12:00	05/07/16 11:00
500-111307-12	TB4	Solid	05/06/16 12:00	05/07/16 11:00
500-111307-13	TB5	Solid	05/06/16 12:00	05/07/16 11:00
500-111307-14	TB6	Solid	05/06/16 12:00	05/07/16 11:00

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: SW1

Date Collected: 05/06/16 12:00

Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-1

Matrix: Solid

Percent Solids: 94.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<26		56	26	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
1,1,1-Trichloroethane	<21		56	21	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
1,1,2,2-Tetrachloroethane	<22		56	22	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
1,1,2-Trichloroethane	<20		56	20	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
1,1-Dichloroethane	<23		56	23	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
1,1-Dichloroethene	<22		56	22	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
1,1-Dichloropropene	<17		56	17	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
1,2,3-Trichlorobenzene	<26		56	26	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
1,2,3-Trichloropropane	<23		56	23	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
1,2,4-Trichlorobenzene	<19		56	19	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
1,2,4-Trimethylbenzene	<20		56	20	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
1,2-Dibromo-3-Chloropropane	<110		280	110	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
1,2-Dibromoethane	<22		56	22	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
1,2-Dichlorobenzene	<19		56	19	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
1,2-Dichloroethane	<22		56	22	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
1,2-Dichloropropane	<24		56	24	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
1,3,5-Trimethylbenzene	<21		56	21	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
1,3-Dichlorobenzene	<22		56	22	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
1,3-Dichloropropane	<20		56	20	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
1,4-Dichlorobenzene	<20		56	20	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
2,2-Dichloropropane	<25		56	25	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
2-Chlorotoluene	<17		56	17	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
4-Chlorotoluene	<20		56	20	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Benzene	<8.1		14	8.1	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Bromobenzene	<20		56	20	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Bromochloromethane	<24		56	24	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Bromodichloromethane	<21		56	21	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Bromoform	<27		56	27	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Bromomethane	<44		110	44	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Carbon tetrachloride	<21		56	21	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Chlorobenzene	<22		56	22	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Chloroethane	<28		56	28	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Chloroform	<21		56	21	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Chloromethane	<18		56	18	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
cis-1,2-Dichloroethene	<23		56	23	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
cis-1,3-Dichloropropene	<23		56	23	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Dibromochloromethane	<27		56	27	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Dibromomethane	<15		56	15	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Dichlorodifluoromethane	<38		110	38	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Ethylbenzene	<10		14	10	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Hexachlorobutadiene	<25		56	25	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Isopropyl ether	<15		56	15	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Isopropylbenzene	<21		56	21	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Methyl tert-butyl ether	<22		56	22	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Methylene Chloride	<91		280	91	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Naphthalene	<19		56	19	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
n-Butylbenzene	<22		56	22	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
N-Propylbenzene	<23		56	23	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
p-Isopropyltoluene	<20		56	20	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50

TestAmerica Chicago

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: SW1

Date Collected: 05/06/16 12:00

Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-1

Matrix: Solid

Percent Solids: 94.8

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<22		56	22	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Styrene	<22		56	22	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
tert-Butylbenzene	<22		56	22	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Tetrachloroethene	<21		56	21	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Toluene	<8.2		14	8.2	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
trans-1,2-Dichloroethene	<20		56	20	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
trans-1,3-Dichloropropene	<20		56	20	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Trichloroethene	<9.1		28	9.1	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Trichlorofluoromethane	<24		56	24	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Vinyl chloride	<15		28	15	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Xylenes, Total	<12		28	12	ug/Kg	☼	05/06/16 12:00	05/19/16 01:15	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		71 - 127				05/06/16 12:00	05/19/16 01:15	50
4-Bromofluorobenzene (Surr)	85		71 - 120				05/06/16 12:00	05/19/16 01:15	50
Dibromofluoromethane	107		70 - 120				05/06/16 12:00	05/19/16 01:15	50
Toluene-d8 (Surr)	97		75 - 120				05/06/16 12:00	05/19/16 01:15	50

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.5		1.0	0.47	mg/Kg	☼	05/13/16 09:08	05/14/16 21:06	1
Barium	11	B	1.0	0.19	mg/Kg	☼	05/13/16 09:08	05/14/16 21:06	1
Cadmium	<0.059		0.20	0.059	mg/Kg	☼	05/13/16 09:08	05/14/16 21:06	1
Chromium	3.6		1.0	0.17	mg/Kg	☼	05/13/16 09:08	05/14/16 21:06	1
Lead	6.1		0.51	0.25	mg/Kg	☼	05/13/16 09:08	05/14/16 21:06	1
Selenium	1.1		1.0	0.50	mg/Kg	☼	05/13/16 09:08	05/14/16 21:06	1
Silver	0.15	J	0.51	0.12	mg/Kg	☼	05/13/16 09:08	05/14/16 21:06	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0084		0.016	0.0084	mg/Kg	☼	05/12/16 14:00	05/16/16 17:54	1

Client Sample ID: SW2

Date Collected: 05/06/16 12:00

Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-2

Matrix: Solid

Percent Solids: 91.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<27		59	27	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
1,1,1-Trichloroethane	<22		59	22	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
1,1,2,2-Tetrachloroethane	<24		59	24	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
1,1,2-Trichloroethane	<21		59	21	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
1,1-Dichloroethane	<24		59	24	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
1,1-Dichloroethene	<23		59	23	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
1,1-Dichloropropene	<18		59	18	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
1,2,3-Trichlorobenzene	<27		59	27	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
1,2,3-Trichloropropane	<24		59	24	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
1,2,4-Trichlorobenzene	<20		59	20	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
1,2,4-Trimethylbenzene	<21		59	21	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
1,2-Dibromo-3-Chloropropane	<120		300	120	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50

TestAmerica Chicago

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: SW2

Lab Sample ID: 500-111307-2

Date Collected: 05/06/16 12:00

Matrix: Solid

Date Received: 05/07/16 11:00

Percent Solids: 91.3

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	<23		59	23	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
1,2-Dichlorobenzene	<20		59	20	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
1,2-Dichloroethane	<23		59	23	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
1,2-Dichloropropane	<25		59	25	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
1,3,5-Trimethylbenzene	<22		59	22	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
1,3-Dichlorobenzene	<24		59	24	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
1,3-Dichloropropane	<21		59	21	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
1,4-Dichlorobenzene	<22		59	22	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
2,2-Dichloropropane	<26		59	26	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
2-Chlorotoluene	<19		59	19	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
4-Chlorotoluene	<21		59	21	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Benzene	<8.6		15	8.6	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Bromobenzene	<21		59	21	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Bromochloromethane	<25		59	25	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Bromodichloromethane	<22		59	22	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Bromoform	<29		59	29	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Bromomethane	<47		120	47	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Carbon tetrachloride	<23		59	23	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Chlorobenzene	<23		59	23	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Chloroethane	<30		59	30	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Chloroform	<22		59	22	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Chloromethane	<19		59	19	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
cis-1,2-Dichloroethene	<24		59	24	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
cis-1,3-Dichloropropene	<25		59	25	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Dibromochloromethane	<29		59	29	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Dibromomethane	<16		59	16	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Dichlorodifluoromethane	<40		120	40	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Ethylbenzene	<11		15	11	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Hexachlorobutadiene	<26		59	26	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Isopropyl ether	<16		59	16	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Isopropylbenzene	<23		59	23	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Methyl tert-butyl ether	<23		59	23	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Methylene Chloride	<96		300	96	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Naphthalene	<20		59	20	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
n-Butylbenzene	<23		59	23	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
N-Propylbenzene	<24		59	24	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
p-Isopropyltoluene	<21		59	21	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
sec-Butylbenzene	<24		59	24	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Styrene	<23		59	23	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
tert-Butylbenzene	<24		59	24	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Tetrachloroethene	<22		59	22	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Toluene	<8.7		15	8.7	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
trans-1,2-Dichloroethene	<21		59	21	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
trans-1,3-Dichloropropene	<21		59	21	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Trichloroethene	<9.7		30	9.7	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Trichlorofluoromethane	<25		59	25	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Vinyl chloride	<15		30	15	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50
Xylenes, Total	<13		30	13	ug/Kg	☼	05/06/16 12:00	05/19/16 01:42	50

TestAmerica Chicago

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: SW2

Date Collected: 05/06/16 12:00

Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-2

Matrix: Solid

Percent Solids: 91.3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		71 - 127	05/06/16 12:00	05/19/16 01:42	50
4-Bromofluorobenzene (Surr)	87		71 - 120	05/06/16 12:00	05/19/16 01:42	50
Dibromofluoromethane	107		70 - 120	05/06/16 12:00	05/19/16 01:42	50
Toluene-d8 (Surr)	98		75 - 120	05/06/16 12:00	05/19/16 01:42	50

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.4		0.97	0.45	mg/Kg	☼	05/13/16 09:08	05/14/16 21:11	1
Barium	15	B	0.97	0.18	mg/Kg	☼	05/13/16 09:08	05/14/16 21:11	1
Cadmium	0.18	J	0.19	0.056	mg/Kg	☼	05/13/16 09:08	05/14/16 21:11	1
Chromium	4.5		0.97	0.17	mg/Kg	☼	05/13/16 09:08	05/14/16 21:11	1
Lead	5.2		0.48	0.24	mg/Kg	☼	05/13/16 09:08	05/14/16 21:11	1
Selenium	0.74	J	0.97	0.48	mg/Kg	☼	05/13/16 09:08	05/14/16 21:11	1
Silver	<0.11		0.48	0.11	mg/Kg	☼	05/13/16 09:08	05/14/16 21:11	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0090		0.017	0.0090	mg/Kg	☼	05/12/16 14:00	05/16/16 18:06	1

Client Sample ID: SW3

Date Collected: 05/06/16 12:00

Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-3

Matrix: Solid

Percent Solids: 86.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<31		66	31	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
1,1,1-Trichloroethane	<25		66	25	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
1,1,2,2-Tetrachloroethane	<26		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
1,1,2-Trichloroethane	<23		66	23	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
1,1-Dichloroethane	<27		66	27	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
1,1-Dichloroethene	<26		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
1,1-Dichloropropene	<20		66	20	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
1,2,3-Trichlorobenzene	<30		66	30	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
1,2,3-Trichloropropane	<27		66	27	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
1,2,4-Trichlorobenzene	<23		66	23	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
1,2,4-Trimethylbenzene	72		66	24	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
1,2-Dibromo-3-Chloropropane	<130		330	130	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
1,2-Dibromoethane	<26		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
1,2-Dichlorobenzene	<22		66	22	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
1,2-Dichloroethane	<26		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
1,2-Dichloropropane	<28		66	28	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
1,3,5-Trimethylbenzene	69		66	25	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
1,3-Dichlorobenzene	<27		66	27	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
1,3-Dichloropropane	<24		66	24	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
1,4-Dichlorobenzene	<24		66	24	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
2,2-Dichloropropane	<29		66	29	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
2-Chlorotoluene	<21		66	21	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
4-Chlorotoluene	<23		66	23	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
Benzene	120		17	9.7	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
Bromobenzene	<24		66	24	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
Bromochloromethane	<28		66	28	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50

TestAmerica Chicago

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: SW3

Lab Sample ID: 500-111307-3

Date Collected: 05/06/16 12:00

Matrix: Solid

Date Received: 05/07/16 11:00

Percent Solids: 86.0

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	<25		66	25	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
Bromoform	<32		66	32	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
Bromomethane	<53		130	53	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
Carbon tetrachloride	<25		66	25	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
Chlorobenzene	<26		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
Chloroethane	<33		66	33	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
Chloroform	<25		66	25	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
Chloromethane	<21		66	21	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
cis-1,2-Dichloroethene	<27		66	27	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
cis-1,3-Dichloropropene	<28		66	28	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
Dibromochloromethane	<32		66	32	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
Dibromomethane	<18		66	18	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
Dichlorodifluoromethane	<45		130	45	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
Ethylbenzene	<12		17	12	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
Hexachlorobutadiene	<30		66	30	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
Isopropyl ether	<18		66	18	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
Isopropylbenzene	890		66	25	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
Methyl tert-butyl ether	<26		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
Methylene Chloride	<110		330	110	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
Naphthalene	62	J	66	22	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
n-Butylbenzene	690		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
N-Propylbenzene	1900		66	27	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
p-Isopropyltoluene	310		66	24	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
sec-Butylbenzene	480		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
Styrene	<26		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
tert-Butylbenzene	<26		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
Tetrachloroethene	<25		66	25	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
Toluene	<9.8		17	9.8	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
trans-1,2-Dichloroethene	<23		66	23	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
trans-1,3-Dichloropropene	<24		66	24	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
Trichloroethene	<11		33	11	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
Trichlorofluoromethane	<28		66	28	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
Vinyl chloride	<17		33	17	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50
Xylenes, Total	<15		33	15	ug/Kg	☼	05/06/16 12:00	05/19/16 02:08	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		71 - 127	05/06/16 12:00	05/19/16 02:08	50
4-Bromofluorobenzene (Surr)	85		71 - 120	05/06/16 12:00	05/19/16 02:08	50
Dibromofluoromethane	104		70 - 120	05/06/16 12:00	05/19/16 02:08	50
Toluene-d8 (Surr)	104		75 - 120	05/06/16 12:00	05/19/16 02:08	50

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.4		1.1	0.49	mg/Kg	☼	05/13/16 09:08	05/14/16 21:16	1
Barium	34	B	1.1	0.19	mg/Kg	☼	05/13/16 09:08	05/14/16 21:16	1
Cadmium	0.23		0.21	0.062	mg/Kg	☼	05/13/16 09:08	05/14/16 21:16	1
Chromium	13		1.1	0.18	mg/Kg	☼	05/13/16 09:08	05/14/16 21:16	1
Lead	9.3		0.53	0.26	mg/Kg	☼	05/13/16 09:08	05/14/16 21:16	1
Selenium	<0.53		1.1	0.53	mg/Kg	☼	05/13/16 09:08	05/14/16 21:16	1
Silver	<0.12		0.53	0.12	mg/Kg	☼	05/13/16 09:08	05/14/16 21:16	1

TestAmerica Chicago

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.079		0.019	0.010	mg/Kg	☼	05/12/16 14:00	05/16/16 16:32	1

Client Sample ID: SW4

Lab Sample ID: 500-111307-4

Date Collected: 05/06/16 12:00

Matrix: Solid

Date Received: 05/07/16 11:00

Percent Solids: 87.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<58		130	58	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
1,1,1-Trichloroethane	<48		130	48	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
1,1,2,2-Tetrachloroethane	<50		130	50	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
1,1,2-Trichloroethane	<44		130	44	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
1,1-Dichloroethane	<52		130	52	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
1,1-Dichloroethene	<49		130	49	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
1,1-Dichloropropene	<38		130	38	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
1,2,3-Trichlorobenzene	<58		130	58	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
1,2,3-Trichloropropane	<52		130	52	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
1,2,4-Trichlorobenzene	<43		130	43	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
1,2,4-Trimethylbenzene	<45		130	45	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
1,2-Dibromo-3-Chloropropane	<250		630	250	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
1,2-Dibromoethane	<49		130	49	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
1,2-Dichlorobenzene	<42		130	42	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
1,2-Dichloroethane	<49		130	49	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
1,2-Dichloropropane	<54		130	54	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
1,3,5-Trimethylbenzene	<48		130	48	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
1,3-Dichlorobenzene	<50		130	50	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
1,3-Dichloropropane	<46		130	46	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
1,4-Dichlorobenzene	<46		130	46	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
2,2-Dichloropropane	<56		130	56	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
2-Chlorotoluene	<40		130	40	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
4-Chlorotoluene	<44		130	44	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Benzene	110		32	18	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Bromobenzene	<45		130	45	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Bromochloromethane	<54		130	54	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Bromodichloromethane	<47		130	47	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Bromoform	<61		130	61	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Bromomethane	<100		250	100	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Carbon tetrachloride	<48		130	48	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Chlorobenzene	<49		130	49	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Chloroethane	<64		130	64	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Chloroform	<47		130	47	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Chloromethane	<40		130	40	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
cis-1,2-Dichloroethene	<52		130	52	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
cis-1,3-Dichloropropene	<53		130	53	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Dibromochloromethane	<62		130	62	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Dibromomethane	<34		130	34	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Dichlorodifluoromethane	<85		250	85	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Ethylbenzene	<23		32	23	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Hexachlorobutadiene	<56		130	56	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Isopropyl ether	<35		130	35	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Isopropylbenzene	1300		130	48	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Methyl tert-butyl ether	<50		130	50	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Methylene Chloride	<210		630	210	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100

TestAmerica Chicago

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: SW4
Date Collected: 05/06/16 12:00
Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-4
Matrix: Solid
Percent Solids: 87.7

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	<42		130	42	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
n-Butylbenzene	<49		130	49	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
N-Propylbenzene	2000		130	52	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
p-Isopropyltoluene	320		130	46	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
sec-Butylbenzene	740		130	50	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Styrene	<49		130	49	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
tert-Butylbenzene	<50		130	50	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Tetrachloroethene	<47		130	47	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Toluene	<19		32	19	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
trans-1,2-Dichloroethene	<44		130	44	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
trans-1,3-Dichloropropene	<46		130	46	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Trichloroethene	<21		63	21	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Trichlorofluoromethane	<54		130	54	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Vinyl chloride	<33		63	33	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Xylenes, Total	<28		63	28	ug/Kg	☼	05/06/16 12:00	05/19/16 05:42	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		71 - 127				05/06/16 12:00	05/19/16 05:42	100
4-Bromofluorobenzene (Surr)	88		71 - 120				05/06/16 12:00	05/19/16 05:42	100
Dibromofluoromethane	108		70 - 120				05/06/16 12:00	05/19/16 05:42	100
Toluene-d8 (Surr)	103		75 - 120				05/06/16 12:00	05/19/16 05:42	100

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.6		1.1	0.49	mg/Kg	☼	05/13/16 09:08	05/14/16 21:21	1
Barium	33	B	1.1	0.19	mg/Kg	☼	05/13/16 09:08	05/14/16 21:21	1
Cadmium	0.22		0.21	0.062	mg/Kg	☼	05/13/16 09:08	05/14/16 21:21	1
Chromium	14		1.1	0.18	mg/Kg	☼	05/13/16 09:08	05/14/16 21:21	1
Lead	9.7		0.53	0.26	mg/Kg	☼	05/13/16 09:08	05/14/16 21:21	1
Selenium	0.53	J	1.1	0.53	mg/Kg	☼	05/13/16 09:08	05/14/16 21:21	1
Silver	<0.12		0.53	0.12	mg/Kg	☼	05/13/16 09:08	05/14/16 21:21	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.078		0.018	0.0094	mg/Kg	☼	05/12/16 14:00	05/16/16 16:34	1

Client Sample ID: SW5
Date Collected: 05/06/16 12:00
Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-5
Matrix: Solid
Percent Solids: 81.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<34		73	34	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
1,1,1-Trichloroethane	<28		73	28	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
1,1,2,2-Tetrachloroethane	<29		73	29	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
1,1,2-Trichloroethane	<26		73	26	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
1,1-Dichloroethane	<30		73	30	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
1,1-Dichloroethene	<28		73	28	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
1,1-Dichloropropene	<22		73	22	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
1,2,3-Trichlorobenzene	<33		73	33	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50

TestAmerica Chicago

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: SW5

Lab Sample ID: 500-111307-5

Date Collected: 05/06/16 12:00

Matrix: Solid

Date Received: 05/07/16 11:00

Percent Solids: 81.3

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<30		73	30	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
1,2,4-Trichlorobenzene	<25		73	25	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
1,2,4-Trimethylbenzene	52	J	73	26	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
1,2-Dibromo-3-Chloropropane	<140		360	140	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
1,2-Dibromoethane	<28		73	28	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
1,2-Dichlorobenzene	<24		73	24	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
1,2-Dichloroethane	<28		73	28	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
1,2-Dichloropropane	<31		73	31	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
1,3,5-Trimethylbenzene	<28		73	28	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
1,3-Dichlorobenzene	<29		73	29	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
1,3-Dichloropropane	<26		73	26	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
1,4-Dichlorobenzene	<26		73	26	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
2,2-Dichloropropane	<32		73	32	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
2-Chlorotoluene	<23		73	23	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
4-Chlorotoluene	<25		73	25	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Benzene	<11		18	11	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Bromobenzene	<26		73	26	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Bromochloromethane	<31		73	31	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Bromodichloromethane	<27		73	27	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Bromoform	<35		73	35	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Bromomethane	<58		150	58	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Carbon tetrachloride	<28		73	28	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Chlorobenzene	<28		73	28	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Chloroethane	<37		73	37	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Chloroform	<27		73	27	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Chloromethane	<23		73	23	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
cis-1,2-Dichloroethene	<30		73	30	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
cis-1,3-Dichloropropene	<30		73	30	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Dibromochloromethane	<35		73	35	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Dibromomethane	<20		73	20	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Dichlorodifluoromethane	<49		150	49	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Ethylbenzene	<13		18	13	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Hexachlorobutadiene	<32		73	32	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Isopropyl ether	<20		73	20	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Isopropylbenzene	<28		73	28	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Methyl tert-butyl ether	<29		73	29	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Methylene Chloride	<120		360	120	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Naphthalene	<24		73	24	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
n-Butylbenzene	<28		73	28	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
N-Propylbenzene	<30		73	30	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
p-Isopropyltoluene	<26		73	26	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
sec-Butylbenzene	<29		73	29	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Styrene	<28		73	28	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
tert-Butylbenzene	<29		73	29	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Tetrachloroethene	<27		73	27	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Toluene	<11		18	11	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
trans-1,2-Dichloroethene	<25		73	25	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
trans-1,3-Dichloropropene	<26		73	26	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Trichloroethene	<12		36	12	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50

TestAmerica Chicago

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: SW5

Date Collected: 05/06/16 12:00

Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-5

Matrix: Solid

Percent Solids: 81.3

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	<31		73	31	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Vinyl chloride	<19		36	19	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Xylenes, Total	<16		36	16	ug/Kg	☼	05/06/16 12:00	05/19/16 02:35	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		71 - 127				05/06/16 12:00	05/19/16 02:35	50
4-Bromofluorobenzene (Surr)	86		71 - 120				05/06/16 12:00	05/19/16 02:35	50
Dibromofluoromethane	107		70 - 120				05/06/16 12:00	05/19/16 02:35	50
Toluene-d8 (Surr)	98		75 - 120				05/06/16 12:00	05/19/16 02:35	50

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.2		1.2	0.54	mg/Kg	☼	05/13/16 09:08	05/14/16 21:27	1
Barium	78	B	1.2	0.21	mg/Kg	☼	05/13/16 09:08	05/14/16 21:27	1
Cadmium	0.24		0.23	0.068	mg/Kg	☼	05/13/16 09:08	05/14/16 21:27	1
Chromium	27		1.2	0.20	mg/Kg	☼	05/13/16 09:08	05/14/16 21:27	1
Lead	20		0.59	0.29	mg/Kg	☼	05/13/16 09:08	05/14/16 21:27	1
Selenium	0.59	J	1.2	0.58	mg/Kg	☼	05/13/16 09:08	05/14/16 21:27	1
Silver	<0.14		0.59	0.14	mg/Kg	☼	05/13/16 09:08	05/14/16 21:27	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.11		0.019	0.010	mg/Kg	☼	05/12/16 14:00	05/16/16 16:36	1

Client Sample ID: SW6

Date Collected: 05/06/16 12:00

Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-6

Matrix: Solid

Percent Solids: 86.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<62		130	62	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
1,1,1-Trichloroethane	<51		130	51	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
1,1,2,2-Tetrachloroethane	<53		130	53	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
1,1,2-Trichloroethane	<47		130	47	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
1,1-Dichloroethane	<55		130	55	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
1,1-Dichloroethene	<52		130	52	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
1,1-Dichloropropene	<40		130	40	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
1,2,3-Trichlorobenzene	<61		130	61	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
1,2,3-Trichloropropane	<55		130	55	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
1,2,4-Trichlorobenzene	<46		130	46	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
1,2-Dibromo-3-Chloropropane	<270		670	270	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
1,2-Dibromoethane	<52		130	52	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
1,2-Dichlorobenzene	<45		130	45	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
1,2-Dichloroethane	<52		130	52	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
1,2-Dichloropropane	<57		130	57	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
1,3,5-Trimethylbenzene	16000		130	51	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
1,3-Dichlorobenzene	<54		130	54	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
1,3-Dichloropropane	<48		130	48	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
1,4-Dichlorobenzene	<49		130	49	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
2,2-Dichloropropane	<59		130	59	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100

TestAmerica Chicago

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: SW6

Lab Sample ID: 500-111307-6

Date Collected: 05/06/16 12:00

Matrix: Solid

Date Received: 05/07/16 11:00

Percent Solids: 86.2

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorotoluene	<42		130	42	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
4-Chlorotoluene	<47		130	47	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Benzene	310		33	20	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Bromobenzene	<48		130	48	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Bromochloromethane	<57		130	57	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Bromodichloromethane	<50		130	50	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Bromoform	<65		130	65	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Bromomethane	<110		270	110	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Carbon tetrachloride	<51		130	51	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Chlorobenzene	<52		130	52	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Chloroethane	<67		130	67	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Chloroform	<49		130	49	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Chloromethane	<43		130	43	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
cis-1,2-Dichloroethene	<55		130	55	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
cis-1,3-Dichloropropene	<56		130	56	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Dibromochloromethane	<65		130	65	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Dibromomethane	<36		130	36	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Dichlorodifluoromethane	<90		270	90	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Ethylbenzene	<24		33	24	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Hexachlorobutadiene	<60		130	60	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Isopropyl ether	<37		130	37	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Isopropylbenzene	3000		130	51	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Methyl tert-butyl ether	<53		130	53	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Methylene Chloride	<220		670	220	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Naphthalene	8800		130	45	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
n-Butylbenzene	4800		130	52	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
N-Propylbenzene	9600		130	55	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
p-Isopropyltoluene	880		130	48	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
sec-Butylbenzene	1200		130	53	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Styrene	<52		130	52	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
tert-Butylbenzene	<53		130	53	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Tetrachloroethene	<49		130	49	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Toluene	89		33	20	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
trans-1,2-Dichloroethene	<47		130	47	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
trans-1,3-Dichloropropene	<48		130	48	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Trichloroethene	<22		67	22	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Trichlorofluoromethane	<57		130	57	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Vinyl chloride	<35		67	35	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100
Xylenes, Total	360		67	29	ug/Kg	☼	05/06/16 12:00	05/19/16 07:02	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		71 - 127	05/06/16 12:00	05/19/16 07:02	100
4-Bromofluorobenzene (Surr)	87		71 - 120	05/06/16 12:00	05/19/16 07:02	100
Dibromofluoromethane	110		70 - 120	05/06/16 12:00	05/19/16 07:02	100
Toluene-d8 (Surr)	101		75 - 120	05/06/16 12:00	05/19/16 07:02	100

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	46000		1300	480	ug/Kg	☼	05/06/16 12:00	05/19/16 07:29	1000

TestAmerica Chicago

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: SW6
Date Collected: 05/06/16 12:00
Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-6
Matrix: Solid
Percent Solids: 86.2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		71 - 127	05/06/16 12:00	05/19/16 07:29	1000
4-Bromofluorobenzene (Surr)	86		71 - 120	05/06/16 12:00	05/19/16 07:29	1000
Dibromofluoromethane	109		70 - 120	05/06/16 12:00	05/19/16 07:29	1000
Toluene-d8 (Surr)	100		75 - 120	05/06/16 12:00	05/19/16 07:29	1000

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.4		1.0	0.46	mg/Kg	☼	05/13/16 09:08	05/14/16 21:32	1
Barium	42	B	1.0	0.18	mg/Kg	☼	05/13/16 09:08	05/14/16 21:32	1
Cadmium	0.31		0.20	0.058	mg/Kg	☼	05/13/16 09:08	05/14/16 21:32	1
Chromium	16		1.0	0.17	mg/Kg	☼	05/13/16 09:08	05/14/16 21:32	1
Lead	12		0.50	0.25	mg/Kg	☼	05/13/16 09:08	05/14/16 21:32	1
Selenium	<0.50		1.0	0.50	mg/Kg	☼	05/13/16 09:08	05/14/16 21:32	1
Silver	<0.12		0.50	0.12	mg/Kg	☼	05/13/16 09:08	05/14/16 21:32	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.023		0.019	0.010	mg/Kg	☼	05/12/16 14:00	05/16/16 16:57	1

Client Sample ID: SW7
Date Collected: 05/06/16 12:00
Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-7
Matrix: Solid
Percent Solids: 85.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<31		68	31	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
1,1,1-Trichloroethane	<26		68	26	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
1,1,2,2-Tetrachloroethane	<27		68	27	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
1,1,2-Trichloroethane	<24		68	24	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
1,1-Dichloroethane	<28		68	28	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
1,1-Dichloroethene	<26		68	26	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
1,1-Dichloropropene	<20		68	20	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
1,2,3-Trichlorobenzene	<31		68	31	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
1,2,3-Trichloropropane	<28		68	28	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
1,2,4-Trichlorobenzene	<23		68	23	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
1,2,4-Trimethylbenzene	<24		68	24	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
1,2-Dibromo-3-Chloropropane	<130		340	130	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
1,2-Dibromoethane	<26		68	26	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
1,2-Dichlorobenzene	<23		68	23	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
1,2-Dichloroethane	<26		68	26	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
1,2-Dichloropropane	<29		68	29	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
1,3,5-Trimethylbenzene	<26		68	26	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
1,3-Dichlorobenzene	<27		68	27	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
1,3-Dichloropropane	<24		68	24	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
1,4-Dichlorobenzene	<25		68	25	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
2,2-Dichloropropane	<30		68	30	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
2-Chlorotoluene	<21		68	21	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
4-Chlorotoluene	<24		68	24	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
Benzene	36		17	9.9	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
Bromobenzene	<24		68	24	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
Bromochloromethane	<29		68	29	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50

TestAmerica Chicago

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: SW7

Lab Sample ID: 500-111307-7

Date Collected: 05/06/16 12:00

Matrix: Solid

Date Received: 05/07/16 11:00

Percent Solids: 85.4

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	<25		68	25	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
Bromoform	<33		68	33	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
Bromomethane	<54		140	54	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
Carbon tetrachloride	<26		68	26	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
Chlorobenzene	<26		68	26	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
Chloroethane	<34		68	34	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
Chloroform	<25		68	25	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
Chloromethane	<22		68	22	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
cis-1,2-Dichloroethene	<28		68	28	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
cis-1,3-Dichloropropene	<28		68	28	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
Dibromochloromethane	<33		68	33	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
Dibromomethane	<18		68	18	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
Dichlorodifluoromethane	<46		140	46	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
Ethylbenzene	<12		17	12	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
Hexachlorobutadiene	<30		68	30	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
Isopropyl ether	<19		68	19	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
Isopropylbenzene	1200		68	26	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
Methyl tert-butyl ether	<27		68	27	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
Methylene Chloride	<110		340	110	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
Naphthalene	380		68	23	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
n-Butylbenzene	1500		68	26	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
N-Propylbenzene	3400		68	28	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
p-Isopropyltoluene	320		68	27	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
sec-Butylbenzene	730		68	24	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
Styrene	<26		68	26	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
tert-Butylbenzene	<27		68	27	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
Tetrachloroethene	<25		68	25	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
Toluene	<9.9		17	9.9	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
trans-1,2-Dichloroethene	<24		68	24	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
trans-1,3-Dichloropropene	<24		68	24	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
Trichloroethene	<11		34	11	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
Trichlorofluoromethane	<29		68	29	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
Vinyl chloride	<18		34	18	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50
Xylenes, Total	<15		34	15	ug/Kg	☼	05/06/16 12:00	05/19/16 03:02	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		71 - 127	05/06/16 12:00	05/19/16 03:02	50
4-Bromofluorobenzene (Surr)	85		71 - 120	05/06/16 12:00	05/19/16 03:02	50
Dibromofluoromethane	111		70 - 120	05/06/16 12:00	05/19/16 03:02	50
Toluene-d8 (Surr)	103		75 - 120	05/06/16 12:00	05/19/16 03:02	50

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.6		1.0	0.48	mg/Kg	☼	05/13/16 09:08	05/14/16 21:37	1
Barium	35	B	1.0	0.19	mg/Kg	☼	05/13/16 09:08	05/14/16 21:37	1
Cadmium	0.27		0.21	0.060	mg/Kg	☼	05/13/16 09:08	05/14/16 21:37	1
Chromium	13		1.0	0.18	mg/Kg	☼	05/13/16 09:08	05/14/16 21:37	1
Lead	20		0.51	0.26	mg/Kg	☼	05/13/16 09:08	05/14/16 21:37	1
Selenium	0.59	J	1.0	0.51	mg/Kg	☼	05/13/16 09:08	05/14/16 21:37	1
Silver	<0.12		0.51	0.12	mg/Kg	☼	05/13/16 09:08	05/14/16 21:37	1

TestAmerica Chicago

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.12		0.017	0.0090	mg/Kg	☼	05/12/16 14:00	05/16/16 16:59	1

Client Sample ID: SW8

Lab Sample ID: 500-111307-8

Date Collected: 05/06/16 12:00

Matrix: Solid

Date Received: 05/07/16 11:00

Percent Solids: 85.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<61		130	61	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
1,1,1-Trichloroethane	<50		130	50	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
1,1,2,2-Tetrachloroethane	<53		130	53	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
1,1,2-Trichloroethane	<47		130	47	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
1,1-Dichloroethane	<54		130	54	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
1,1-Dichloroethene	<52		130	52	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
1,1-Dichloropropene	<40		130	40	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
1,2,3-Trichlorobenzene	<61		130	61	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
1,2,3-Trichloropropane	<55		130	55	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
1,2,4-Trichlorobenzene	<45		130	45	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
1,2,4-Trimethylbenzene	<47		130	47	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
1,2-Dibromo-3-Chloropropane	<260		660	260	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
1,2-Dibromoethane	<51		130	51	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
1,2-Dichlorobenzene	<44		130	44	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
1,2-Dichloroethane	<52		130	52	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
1,2-Dichloropropane	<57		130	57	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
1,3,5-Trimethylbenzene	<50		130	50	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
1,3-Dichlorobenzene	<53		130	53	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
1,3-Dichloropropane	<48		130	48	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
1,4-Dichlorobenzene	<48		130	48	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
2,2-Dichloropropane	<59		130	59	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
2-Chlorotoluene	<42		130	42	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
4-Chlorotoluene	<46		130	46	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Benzene	<19		33	19	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Bromobenzene	<47		130	47	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Bromochloromethane	<57		130	57	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Bromodichloromethane	<49		130	49	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Bromoform	<64		130	64	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Bromomethane	<110		270	110	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Carbon tetrachloride	<51		130	51	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Chlorobenzene	<51		130	51	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Chloroethane	<67		130	67	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Chloroform	<49		130	49	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Chloromethane	<42		130	42	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
cis-1,2-Dichloroethene	<54		130	54	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
cis-1,3-Dichloropropene	<55		130	55	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Dibromochloromethane	<65		130	65	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Dibromomethane	<36		130	36	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Dichlorodifluoromethane	<89		270	89	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Ethylbenzene	<24		33	24	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Hexachlorobutadiene	<59		130	59	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Isopropyl ether	<37		130	37	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Isopropylbenzene	89	J	130	51	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Methyl tert-butyl ether	<52		130	52	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Methylene Chloride	<220		660	220	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100

TestAmerica Chicago

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: SW8
Date Collected: 05/06/16 12:00
Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-8
Matrix: Solid
Percent Solids: 85.5

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	<44		130	44	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
n-Butylbenzene	<51		130	51	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
N-Propylbenzene	240		130	55	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
p-Isopropyltoluene	<48		130	48	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
sec-Butylbenzene	<53		130	53	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Styrene	<51		130	51	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
tert-Butylbenzene	<53		130	53	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Tetrachloroethene	<49		130	49	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Toluene	<19		33	19	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
trans-1,2-Dichloroethene	<46		130	46	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
trans-1,3-Dichloropropene	<48		130	48	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Trichloroethene	<22		66	22	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Trichlorofluoromethane	<57		130	57	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Vinyl chloride	<35		66	35	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Xylenes, Total	<29		66	29	ug/Kg	☼	05/06/16 12:00	05/19/16 06:09	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		71 - 127				05/06/16 12:00	05/19/16 06:09	100
4-Bromofluorobenzene (Surr)	84		71 - 120				05/06/16 12:00	05/19/16 06:09	100
Dibromofluoromethane	108		70 - 120				05/06/16 12:00	05/19/16 06:09	100
Toluene-d8 (Surr)	99		75 - 120				05/06/16 12:00	05/19/16 06:09	100

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.5		0.99	0.46	mg/Kg	☼	05/13/16 09:08	05/14/16 21:42	1
Barium	55	B	0.99	0.18	mg/Kg	☼	05/13/16 09:08	05/14/16 21:42	1
Cadmium	1.2		0.20	0.058	mg/Kg	☼	05/13/16 09:08	05/14/16 21:42	1
Chromium	14		0.99	0.17	mg/Kg	☼	05/13/16 09:08	05/14/16 21:42	1
Lead	98		0.50	0.25	mg/Kg	☼	05/13/16 09:08	05/14/16 21:42	1
Selenium	0.74	J	0.99	0.49	mg/Kg	☼	05/13/16 09:08	05/14/16 21:42	1
Silver	<0.12		0.50	0.12	mg/Kg	☼	05/13/16 09:08	05/14/16 21:42	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.23		0.018	0.0095	mg/Kg	☼	05/12/16 14:00	05/16/16 17:03	1

Client Sample ID: TB1
Date Collected: 05/06/16 12:00
Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-9
Matrix: Solid
Percent Solids: 87.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<30		64	30	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
1,1,1-Trichloroethane	<24		64	24	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
1,1,2,2-Tetrachloroethane	<26		64	26	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
1,1,2-Trichloroethane	<23		64	23	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
1,1-Dichloroethane	<26		64	26	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
1,1-Dichloroethene	<25		64	25	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
1,1-Dichloropropene	<19		64	19	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
1,2,3-Trichlorobenzene	<29		64	29	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50

TestAmerica Chicago

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: TB1

Lab Sample ID: 500-111307-9

Date Collected: 05/06/16 12:00

Matrix: Solid

Date Received: 05/07/16 11:00

Percent Solids: 87.5

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<27		64	27	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
1,2,4-Trichlorobenzene	<22		64	22	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
1,2,4-Trimethylbenzene	<23		64	23	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
1,2-Dibromo-3-Chloropropane	<130		320	130	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
1,2-Dibromoethane	<25		64	25	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
1,2-Dichlorobenzene	<22		64	22	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
1,2-Dichloroethane	<25		64	25	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
1,2-Dichloropropane	<28		64	28	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
1,3,5-Trimethylbenzene	<24		64	24	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
1,3-Dichlorobenzene	<26		64	26	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
1,3-Dichloropropane	<23		64	23	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
1,4-Dichlorobenzene	<23		64	23	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
2,2-Dichloropropane	<29		64	29	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
2-Chlorotoluene	<20		64	20	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
4-Chlorotoluene	<23		64	23	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Benzene	440		16	9.4	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Bromobenzene	<23		64	23	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Bromochloromethane	<28		64	28	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Bromodichloromethane	<24		64	24	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Bromoform	<31		64	31	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Bromomethane	<51		130	51	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Carbon tetrachloride	<25		64	25	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Chlorobenzene	<25		64	25	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Chloroethane	<32		64	32	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Chloroform	<24		64	24	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Chloromethane	<21		64	21	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
cis-1,2-Dichloroethene	<26		64	26	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
cis-1,3-Dichloropropene	<27		64	27	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Dibromochloromethane	<31		64	31	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Dibromomethane	<17		64	17	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Dichlorodifluoromethane	<43		130	43	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Ethylbenzene	<12		16	12	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Hexachlorobutadiene	<29		64	29	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Isopropyl ether	<18		64	18	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Isopropylbenzene	650		64	25	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Methyl tert-butyl ether	<25		64	25	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Methylene Chloride	<100		320	100	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Naphthalene	<22		64	22	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
n-Butylbenzene	300		64	25	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
N-Propylbenzene	1000		64	27	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
p-Isopropyltoluene	130		64	23	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
sec-Butylbenzene	280		64	26	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Styrene	<25		64	25	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
tert-Butylbenzene	<26		64	26	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Tetrachloroethene	<24		64	24	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Toluene	<9.5		16	9.5	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
trans-1,2-Dichloroethene	<23		64	23	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
trans-1,3-Dichloropropene	<23		64	23	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Trichloroethene	<11		32	11	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50

TestAmerica Chicago

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: TB1

Date Collected: 05/06/16 12:00

Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-9

Matrix: Solid

Percent Solids: 87.5

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	<28		64	28	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Vinyl chloride	<17		32	17	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Xylenes, Total	<14		32	14	ug/Kg	☼	05/06/16 12:00	05/19/16 03:28	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		71 - 127				05/06/16 12:00	05/19/16 03:28	50
4-Bromofluorobenzene (Surr)	87		71 - 120				05/06/16 12:00	05/19/16 03:28	50
Dibromofluoromethane	108		70 - 120				05/06/16 12:00	05/19/16 03:28	50
Toluene-d8 (Surr)	101		75 - 120				05/06/16 12:00	05/19/16 03:28	50

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.2		1.1	0.50	mg/Kg	☼	05/13/16 09:08	05/14/16 21:47	1
Barium	39	B	1.1	0.20	mg/Kg	☼	05/13/16 09:08	05/14/16 21:47	1
Cadmium	0.26		0.21	0.062	mg/Kg	☼	05/13/16 09:08	05/14/16 21:47	1
Chromium	15		1.1	0.18	mg/Kg	☼	05/13/16 09:08	05/14/16 21:47	1
Lead	9.5		0.54	0.27	mg/Kg	☼	05/13/16 09:08	05/14/16 21:47	1
Selenium	0.65	J	1.1	0.53	mg/Kg	☼	05/13/16 09:08	05/14/16 21:47	1
Silver	<0.13		0.54	0.13	mg/Kg	☼	05/13/16 09:08	05/14/16 21:47	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.027		0.017	0.0091	mg/Kg	☼	05/12/16 14:00	05/16/16 17:05	1

Client Sample ID: TB2

Date Collected: 05/06/16 12:00

Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-10

Matrix: Solid

Percent Solids: 87.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<29		64	29	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
1,1,1-Trichloroethane	<24		64	24	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
1,1,2,2-Tetrachloroethane	<25		64	25	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
1,1,2-Trichloroethane	<22		64	22	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
1,1-Dichloroethane	<26		64	26	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
1,1-Dichloroethene	<25		64	25	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
1,1-Dichloropropene	<19		64	19	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
1,2,3-Trichlorobenzene	<29		64	29	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
1,2,3-Trichloropropane	<26		64	26	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
1,2,4-Trichlorobenzene	<22		64	22	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
1,2,4-Trimethylbenzene	64		64	23	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
1,2-Dibromo-3-Chloropropane	<130		320	130	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
1,2-Dibromoethane	<25		64	25	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
1,2-Dichlorobenzene	<21		64	21	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
1,2-Dichloroethane	<25		64	25	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
1,2-Dichloropropane	<27		64	27	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
1,3,5-Trimethylbenzene	83		64	24	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
1,3-Dichlorobenzene	<26		64	26	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
1,3-Dichloropropane	<23		64	23	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
1,4-Dichlorobenzene	<23		64	23	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50

TestAmerica Chicago

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: TB2
Date Collected: 05/06/16 12:00
Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-10
Matrix: Solid
Percent Solids: 87.8

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	<28		64	28	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
2-Chlorotoluene	<20		64	20	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
4-Chlorotoluene	<22		64	22	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Benzene	250		16	9.3	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Bromobenzene	<23		64	23	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Bromochloromethane	<27		64	27	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Bromodichloromethane	<24		64	24	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Bromoform	<31		64	31	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Bromomethane	<51		130	51	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Carbon tetrachloride	<25		64	25	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Chlorobenzene	<25		64	25	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Chloroethane	<32		64	32	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Chloroform	<24		64	24	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Chloromethane	<20		64	20	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
cis-1,2-Dichloroethene	<26		64	26	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
cis-1,3-Dichloropropene	<27		64	27	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Dibromochloromethane	<31		64	31	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Dibromomethane	<17		64	17	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Dichlorodifluoromethane	<43		130	43	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Ethylbenzene	<12		16	12	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Hexachlorobutadiene	<28		64	28	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Isopropyl ether	<18		64	18	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Isopropylbenzene	650		64	25	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Methyl tert-butyl ether	<25		64	25	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Methylene Chloride	<100		320	100	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Naphthalene	330		64	21	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
n-Butylbenzene	<25		64	25	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
N-Propylbenzene	1500		64	26	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
p-Isopropyltoluene	200		64	23	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
sec-Butylbenzene	270		64	25	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Styrene	<25		64	25	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
tert-Butylbenzene	<25		64	25	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Tetrachloroethene	<24		64	24	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Toluene	<9.4		16	9.4	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
trans-1,2-Dichloroethene	<22		64	22	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
trans-1,3-Dichloropropene	<23		64	23	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Trichloroethene	<10		32	10	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Trichlorofluoromethane	<27		64	27	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Vinyl chloride	<17		32	17	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50
Xylenes, Total	<14		32	14	ug/Kg	☼	05/06/16 12:00	05/19/16 03:55	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		71 - 127	05/06/16 12:00	05/19/16 03:55	50
4-Bromofluorobenzene (Surr)	87		71 - 120	05/06/16 12:00	05/19/16 03:55	50
Dibromofluoromethane	109		70 - 120	05/06/16 12:00	05/19/16 03:55	50
Toluene-d8 (Surr)	97		75 - 120	05/06/16 12:00	05/19/16 03:55	50

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.6		1.0	0.46	mg/Kg	☼	05/13/16 09:08	05/14/16 22:00	1

TestAmerica Chicago

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: TB2
Date Collected: 05/06/16 12:00
Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-10
Matrix: Solid
Percent Solids: 87.8

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	33	B	1.0	0.18	mg/Kg	☼	05/13/16 09:08	05/14/16 22:00	1
Cadmium	0.25		0.20	0.058	mg/Kg	☼	05/13/16 09:08	05/14/16 22:00	1
Chromium	12		1.0	0.17	mg/Kg	☼	05/13/16 09:08	05/14/16 22:00	1
Lead	10		0.50	0.25	mg/Kg	☼	05/13/16 09:08	05/14/16 22:00	1
Selenium	<0.49		1.0	0.49	mg/Kg	☼	05/13/16 09:08	05/14/16 22:00	1
Silver	<0.12		0.50	0.12	mg/Kg	☼	05/13/16 09:08	05/14/16 22:00	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.038		0.019	0.0097	mg/Kg	☼	05/12/16 14:00	05/16/16 17:08	1

Client Sample ID: TB3
Date Collected: 05/06/16 12:00
Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-11
Matrix: Solid
Percent Solids: 87.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<30		66	30	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
1,1,1-Trichloroethane	<25		66	25	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
1,1,2,2-Tetrachloroethane	<26		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
1,1,2-Trichloroethane	<23		66	23	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
1,1-Dichloroethane	<27		66	27	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
1,1-Dichloroethene	<26		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
1,1-Dichloropropene	<20		66	20	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
1,2,3-Trichlorobenzene	<30		66	30	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
1,2,3-Trichloropropane	<27		66	27	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
1,2,4-Trichlorobenzene	<22		66	22	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
1,2,4-Trimethylbenzene	<23		66	23	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
1,2-Dibromo-3-Chloropropane	<130		330	130	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
1,2-Dibromoethane	<25		66	25	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
1,2-Dichlorobenzene	<22		66	22	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
1,2-Dichloroethane	<26		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
1,2-Dichloropropane	<28		66	28	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
1,3,5-Trimethylbenzene	150		66	25	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
1,3-Dichlorobenzene	<26		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
1,3-Dichloropropane	<24		66	24	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
1,4-Dichlorobenzene	<24		66	24	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
2,2-Dichloropropane	<29		66	29	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
2-Chlorotoluene	<21		66	21	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
4-Chlorotoluene	<23		66	23	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
Benzene	510		16	9.6	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
Bromobenzene	<23		66	23	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
Bromochloromethane	<28		66	28	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
Bromodichloromethane	<24		66	24	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
Bromoform	<32		66	32	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
Bromomethane	<52		130	52	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
Carbon tetrachloride	<25		66	25	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
Chlorobenzene	<25		66	25	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
Chloroethane	<33		66	33	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
Chloroform	<24		66	24	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50

TestAmerica Chicago

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: TB3
Date Collected: 05/06/16 12:00
Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-11
Matrix: Solid
Percent Solids: 87.1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<21		66	21	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
cis-1,2-Dichloroethene	<27		66	27	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
cis-1,3-Dichloropropene	<27		66	27	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
Dibromochloromethane	<32		66	32	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
Dibromomethane	<18		66	18	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
Dichlorodifluoromethane	<44		130	44	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
Ethylbenzene	<12		16	12	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
Hexachlorobutadiene	<29		66	29	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
Isopropyl ether	<18		66	18	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
Isopropylbenzene	650		66	25	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
Methyl tert-butyl ether	<26		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
Methylene Chloride	<110		330	110	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
Naphthalene	71		66	22	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
n-Butylbenzene	280		66	25	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
N-Propylbenzene	1200		66	27	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
p-Isopropyltoluene	170		66	24	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
sec-Butylbenzene	210		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
Styrene	<25		66	25	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
tert-Butylbenzene	<26		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
Tetrachloroethene	<24		66	24	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
Toluene	<9.6		16	9.6	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
trans-1,2-Dichloroethene	<23		66	23	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
trans-1,3-Dichloropropene	<24		66	24	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
Trichloroethene	<11		33	11	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
Trichlorofluoromethane	<28		66	28	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
Vinyl chloride	<17		33	17	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50
Xylenes, Total	36		33	14	ug/Kg	☼	05/06/16 12:00	05/19/16 04:22	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		71 - 127	05/06/16 12:00	05/19/16 04:22	50
4-Bromofluorobenzene (Surr)	87		71 - 120	05/06/16 12:00	05/19/16 04:22	50
Dibromofluoromethane	106		70 - 120	05/06/16 12:00	05/19/16 04:22	50
Toluene-d8 (Surr)	98		75 - 120	05/06/16 12:00	05/19/16 04:22	50

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	15		1.1	0.50	mg/Kg	☼	05/13/16 09:08	05/14/16 22:05	1
Barium	35	B	1.1	0.20	mg/Kg	☼	05/13/16 09:08	05/14/16 22:05	1
Cadmium	0.22		0.22	0.062	mg/Kg	☼	05/13/16 09:08	05/14/16 22:05	1
Chromium	16		1.1	0.19	mg/Kg	☼	05/13/16 09:08	05/14/16 22:05	1
Lead	20		0.54	0.27	mg/Kg	☼	05/13/16 09:08	05/14/16 22:05	1
Selenium	<0.53		1.1	0.53	mg/Kg	☼	05/13/16 09:08	05/14/16 22:05	1
Silver	<0.13		0.54	0.13	mg/Kg	☼	05/13/16 09:08	05/14/16 22:05	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.018	0.0094	mg/Kg	☼	05/12/16 14:00	05/16/16 17:11	1

TestAmerica Chicago

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: TB4
Date Collected: 05/06/16 12:00
Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-12
Matrix: Solid
Percent Solids: 85.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<31		67	31	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
1,1,1-Trichloroethane	<25		67	25	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
1,1,2,2-Tetrachloroethane	<27		67	27	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
1,1,2-Trichloroethane	<24		67	24	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
1,1-Dichloroethane	<27		67	27	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
1,1-Dichloroethene	<26		67	26	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
1,1-Dichloropropene	<20		67	20	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
1,2,3-Trichlorobenzene	<31		67	31	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
1,2,3-Trichloropropane	<28		67	28	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
1,2,4-Trichlorobenzene	<23		67	23	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
1,2,4-Trimethylbenzene	130		67	24	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
1,2-Dibromo-3-Chloropropane	<130		330	130	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
1,2-Dibromoethane	<26		67	26	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
1,2-Dichlorobenzene	<22		67	22	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
1,2-Dichloroethane	<26		67	26	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
1,2-Dichloropropane	<29		67	29	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
1,3,5-Trimethylbenzene	230		67	25	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
1,3-Dichlorobenzene	<27		67	27	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
1,3-Dichloropropane	<24		67	24	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
1,4-Dichlorobenzene	<24		67	24	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
2,2-Dichloropropane	<30		67	30	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
2-Chlorotoluene	<21		67	21	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
4-Chlorotoluene	<23		67	23	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Benzene	1400		17	9.8	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Bromobenzene	<24		67	24	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Bromochloromethane	<29		67	29	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Bromodichloromethane	<25		67	25	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Bromoform	<32		67	32	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Bromomethane	<53		130	53	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Carbon tetrachloride	<26		67	26	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Chlorobenzene	<26		67	26	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Chloroethane	<34		67	34	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Chloroform	<25		67	25	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Chloromethane	<21		67	21	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
cis-1,2-Dichloroethene	<27		67	27	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
cis-1,3-Dichloropropene	<28		67	28	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Dibromochloromethane	<33		67	33	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Dibromomethane	<18		67	18	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Dichlorodifluoromethane	<45		130	45	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Ethylbenzene	<12		17	12	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Hexachlorobutadiene	<30		67	30	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Isopropyl ether	<18		67	18	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Isopropylbenzene	770		67	26	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Methyl tert-butyl ether	<26		67	26	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Methylene Chloride	<110		330	110	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Naphthalene	120		67	22	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
n-Butylbenzene	280		67	26	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
N-Propylbenzene	1400		67	28	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
p-Isopropyltoluene	230		67	24	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50

TestAmerica Chicago

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: TB4

Lab Sample ID: 500-111307-12

Date Collected: 05/06/16 12:00

Matrix: Solid

Date Received: 05/07/16 11:00

Percent Solids: 85.9

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	260		67	27	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Styrene	<26		67	26	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
tert-Butylbenzene	<27		67	27	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Tetrachloroethene	<25		67	25	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Toluene	80		17	9.8	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
trans-1,2-Dichloroethene	<23		67	23	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
trans-1,3-Dichloropropene	<24		67	24	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Trichloroethene	<11		33	11	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Trichlorofluoromethane	<29		67	29	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Vinyl chloride	<18		33	18	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Xylenes, Total	64		33	15	ug/Kg	☼	05/06/16 12:00	05/19/16 04:49	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		71 - 127				05/06/16 12:00	05/19/16 04:49	50
4-Bromofluorobenzene (Surr)	87		71 - 120				05/06/16 12:00	05/19/16 04:49	50
Dibromofluoromethane	107		70 - 120				05/06/16 12:00	05/19/16 04:49	50
Toluene-d8 (Surr)	98		75 - 120				05/06/16 12:00	05/19/16 04:49	50

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0		1.0	0.48	mg/Kg	☼	05/13/16 09:08	05/14/16 22:10	1
Barium	41	B	1.0	0.19	mg/Kg	☼	05/13/16 09:08	05/14/16 22:10	1
Cadmium	0.28		0.21	0.060	mg/Kg	☼	05/13/16 09:08	05/14/16 22:10	1
Chromium	16		1.0	0.18	mg/Kg	☼	05/13/16 09:08	05/14/16 22:10	1
Lead	11		0.52	0.26	mg/Kg	☼	05/13/16 09:08	05/14/16 22:10	1
Selenium	0.82	J	1.0	0.52	mg/Kg	☼	05/13/16 09:08	05/14/16 22:10	1
Silver	<0.12		0.52	0.12	mg/Kg	☼	05/13/16 09:08	05/14/16 22:10	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.019	0.010	mg/Kg	☼	05/12/16 14:00	05/16/16 17:14	1

Client Sample ID: TB5

Lab Sample ID: 500-111307-13

Date Collected: 05/06/16 12:00

Matrix: Solid

Date Received: 05/07/16 11:00

Percent Solids: 86.7

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<31		66	31	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
1,1,1-Trichloroethane	<25		66	25	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
1,1,2,2-Tetrachloroethane	<26		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
1,1,2-Trichloroethane	<23		66	23	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
1,1-Dichloroethane	<27		66	27	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
1,1-Dichloroethene	<26		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
1,1-Dichloropropene	<20		66	20	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
1,2,3-Trichlorobenzene	<30		66	30	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
1,2,3-Trichloropropane	<27		66	27	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
1,2,4-Trichlorobenzene	<23		66	23	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
1,2,4-Trimethylbenzene	120		66	24	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
1,2-Dibromo-3-Chloropropane	<130		330	130	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50

TestAmerica Chicago

Client Sample Results

Client: TRC Environmental Corporation.
 Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: TB5

Lab Sample ID: 500-111307-13

Date Collected: 05/06/16 12:00

Matrix: Solid

Date Received: 05/07/16 11:00

Percent Solids: 86.7

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	<26		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
1,2-Dichlorobenzene	<22		66	22	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
1,2-Dichloroethane	<26		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
1,2-Dichloropropane	<28		66	28	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
1,3,5-Trimethylbenzene	200		66	25	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
1,3-Dichlorobenzene	<26		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
1,3-Dichloropropane	<24		66	24	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
1,4-Dichlorobenzene	<24		66	24	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
2,2-Dichloropropane	<29		66	29	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
2-Chlorotoluene	<21		66	21	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
4-Chlorotoluene	<23		66	23	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Benzene	920		17	9.7	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Bromobenzene	<24		66	24	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Bromochloromethane	<28		66	28	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Bromodichloromethane	<25		66	25	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Bromoform	<32		66	32	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Bromomethane	<53		130	53	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Carbon tetrachloride	<25		66	25	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Chlorobenzene	<26		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Chloroethane	<33		66	33	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Chloroform	<24		66	24	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Chloromethane	<21		66	21	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
cis-1,2-Dichloroethene	<27		66	27	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
cis-1,3-Dichloropropene	<28		66	28	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Dibromochloromethane	<32		66	32	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Dibromomethane	<18		66	18	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Dichlorodifluoromethane	<45		130	45	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Ethylbenzene	<12		17	12	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Hexachlorobutadiene	<30		66	30	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Isopropyl ether	<18		66	18	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Isopropylbenzene	730		66	25	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Methyl tert-butyl ether	<26		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Methylene Chloride	<110		330	110	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Naphthalene	81		66	22	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
n-Butylbenzene	280		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
N-Propylbenzene	1500		66	27	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
p-Isopropyltoluene	170		66	24	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
sec-Butylbenzene	220		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Styrene	<26		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
tert-Butylbenzene	<26		66	26	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Tetrachloroethene	<24		66	24	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Toluene	40		17	9.7	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
trans-1,2-Dichloroethene	<23		66	23	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
trans-1,3-Dichloropropene	<24		66	24	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Trichloroethene	<11		33	11	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Trichlorofluoromethane	<28		66	28	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Vinyl chloride	<17		33	17	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50
Xylenes, Total	55		33	15	ug/Kg	☼	05/06/16 12:00	05/19/16 05:15	50

TestAmerica Chicago

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: TB5
Date Collected: 05/06/16 12:00
Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-13
Matrix: Solid
Percent Solids: 86.7

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		71 - 127	05/06/16 12:00	05/19/16 05:15	50
4-Bromofluorobenzene (Surr)	91		71 - 120	05/06/16 12:00	05/19/16 05:15	50
Dibromofluoromethane	109		70 - 120	05/06/16 12:00	05/19/16 05:15	50
Toluene-d8 (Surr)	99		75 - 120	05/06/16 12:00	05/19/16 05:15	50

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.4		0.97	0.45	mg/Kg	☼	05/13/16 09:08	05/14/16 22:15	1
Barium	39	B	0.97	0.18	mg/Kg	☼	05/13/16 09:08	05/14/16 22:15	1
Cadmium	0.23		0.19	0.056	mg/Kg	☼	05/13/16 09:08	05/14/16 22:15	1
Chromium	16		0.97	0.17	mg/Kg	☼	05/13/16 09:08	05/14/16 22:15	1
Lead	9.7		0.49	0.24	mg/Kg	☼	05/13/16 09:08	05/14/16 22:15	1
Selenium	<0.48		0.97	0.48	mg/Kg	☼	05/13/16 09:08	05/14/16 22:15	1
Silver	<0.11		0.49	0.11	mg/Kg	☼	05/13/16 09:08	05/14/16 22:15	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.017	0.0091	mg/Kg	☼	05/12/16 14:00	05/16/16 17:16	1

Client Sample ID: TB6
Date Collected: 05/06/16 12:00
Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-14
Matrix: Solid
Percent Solids: 84.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<62		130	62	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
1,1,1-Trichloroethane	<51		130	51	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
1,1,2,2-Tetrachloroethane	<54		130	54	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
1,1,2-Trichloroethane	<47		130	47	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
1,1-Dichloroethane	<55		130	55	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
1,1-Dichloroethene	<52		130	52	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
1,1-Dichloropropene	<40		130	40	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
1,2,3-Trichlorobenzene	<62		130	62	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
1,2,3-Trichloropropane	<56		130	56	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
1,2,4-Trichlorobenzene	<46		130	46	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
1,2,4-Trimethylbenzene	<48		130	48	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
1,2-Dibromo-3-Chloropropane	<270		670	270	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
1,2-Dibromoethane	<52		130	52	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
1,2-Dichlorobenzene	<45		130	45	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
1,2-Dichloroethane	<53		130	53	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
1,2-Dichloropropane	<58		130	58	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
1,3,5-Trimethylbenzene	110	J	130	51	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
1,3-Dichlorobenzene	<54		130	54	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
1,3-Dichloropropane	<49		130	49	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
1,4-Dichlorobenzene	<49		130	49	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
2,2-Dichloropropane	<60		130	60	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
2-Chlorotoluene	<42		130	42	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
4-Chlorotoluene	<47		130	47	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
Benzene	210		34	20	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
Bromobenzene	<48		130	48	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
Bromochloromethane	<58		130	58	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100

TestAmerica Chicago

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: TB6

Lab Sample ID: 500-111307-14

Date Collected: 05/06/16 12:00

Matrix: Solid

Date Received: 05/07/16 11:00

Percent Solids: 84.9

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	<50		130	50	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
Bromoform	<65		130	65	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
Bromomethane	<110		270	110	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
Carbon tetrachloride	<52		130	52	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
Chlorobenzene	<52		130	52	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
Chloroethane	<68		130	68	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
Chloroform	<50		130	50	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
Chloromethane	<43		130	43	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
cis-1,2-Dichloroethene	<55		130	55	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
cis-1,3-Dichloropropene	<56		130	56	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
Dibromochloromethane	<66		130	66	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
Dibromomethane	<36		130	36	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
Dichlorodifluoromethane	<91		270	91	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
Ethylbenzene	<25		34	25	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
Hexachlorobutadiene	<60		130	60	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
Isopropyl ether	<37		130	37	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
Isopropylbenzene	510		130	52	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
Methyl tert-butyl ether	<53		130	53	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
Methylene Chloride	<220		670	220	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
Naphthalene	<45		130	45	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
n-Butylbenzene	840		130	52	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
N-Propylbenzene	1300		130	56	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
p-Isopropyltoluene	190		130	49	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
sec-Butylbenzene	420		130	54	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
Styrene	<52		130	52	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
tert-Butylbenzene	<54		130	54	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
Tetrachloroethene	<50		130	50	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
Toluene	<20		34	20	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
trans-1,2-Dichloroethene	<47		130	47	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
trans-1,3-Dichloropropene	<49		130	49	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
Trichloroethene	<22		67	22	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
Trichlorofluoromethane	<58		130	58	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
Vinyl chloride	<35		67	35	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100
Xylenes, Total	<30		67	30	ug/Kg	☼	05/06/16 12:00	05/19/16 06:35	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		71 - 127	05/06/16 12:00	05/19/16 06:35	100
4-Bromofluorobenzene (Surr)	87		71 - 120	05/06/16 12:00	05/19/16 06:35	100
Dibromofluoromethane	106		70 - 120	05/06/16 12:00	05/19/16 06:35	100
Toluene-d8 (Surr)	101		75 - 120	05/06/16 12:00	05/19/16 06:35	100

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.1		1.1	0.52	mg/Kg	☼	05/13/16 09:08	05/14/16 22:21	1
Barium	43	B	1.1	0.21	mg/Kg	☼	05/13/16 09:08	05/14/16 22:21	1
Cadmium	0.36		0.22	0.065	mg/Kg	☼	05/13/16 09:08	05/14/16 22:21	1
Chromium	15	V	1.1	0.19	mg/Kg	☼	05/13/16 09:08	05/14/16 22:21	1
Lead	23	F1	0.56	0.28	mg/Kg	☼	05/13/16 09:08	05/14/16 22:21	1
Selenium	0.73	J F1	1.1	0.56	mg/Kg	☼	05/13/16 09:08	05/14/16 22:21	1
Silver	<0.13		0.56	0.13	mg/Kg	☼	05/13/16 09:08	05/14/16 22:21	1

TestAmerica Chicago

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.15		0.019	0.0097	mg/Kg	☼	05/12/16 14:00	05/16/16 17:19	1

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Definitions/Glossary

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
V	Serial Dilution exceeds the control limits
F1	MS and/or MSD Recovery is outside acceptance limits.
F3	Duplicate RPD exceeds the control limit

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

GC/MS VOA

Prep Batch: 334474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111307-1	SW1	Total/NA	Solid	5035	
500-111307-2	SW2	Total/NA	Solid	5035	
500-111307-3	SW3	Total/NA	Solid	5035	
500-111307-4	SW4	Total/NA	Solid	5035	
500-111307-5	SW5	Total/NA	Solid	5035	
500-111307-6	SW6	Total/NA	Solid	5035	
500-111307-6 - DL	SW6	Total/NA	Solid	5035	
500-111307-7	SW7	Total/NA	Solid	5035	
500-111307-8	SW8	Total/NA	Solid	5035	
500-111307-9	TB1	Total/NA	Solid	5035	
500-111307-10	TB2	Total/NA	Solid	5035	
500-111307-11	TB3	Total/NA	Solid	5035	
500-111307-12	TB4	Total/NA	Solid	5035	
500-111307-13	TB5	Total/NA	Solid	5035	
500-111307-14	TB6	Total/NA	Solid	5035	

Analysis Batch: 336098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111307-1	SW1	Total/NA	Solid	8260B	334474
500-111307-2	SW2	Total/NA	Solid	8260B	334474
500-111307-3	SW3	Total/NA	Solid	8260B	334474
500-111307-4	SW4	Total/NA	Solid	8260B	334474
500-111307-5	SW5	Total/NA	Solid	8260B	334474
500-111307-6	SW6	Total/NA	Solid	8260B	334474
500-111307-6 - DL	SW6	Total/NA	Solid	8260B	334474
500-111307-7	SW7	Total/NA	Solid	8260B	334474
500-111307-8	SW8	Total/NA	Solid	8260B	334474
500-111307-9	TB1	Total/NA	Solid	8260B	334474
500-111307-10	TB2	Total/NA	Solid	8260B	334474
500-111307-11	TB3	Total/NA	Solid	8260B	334474
500-111307-12	TB4	Total/NA	Solid	8260B	334474
500-111307-13	TB5	Total/NA	Solid	8260B	334474
500-111307-14	TB6	Total/NA	Solid	8260B	334474
LCS 500-336098/4	Lab Control Sample	Total/NA	Solid	8260B	
MB 500-336098/6	Method Blank	Total/NA	Solid	8260B	

Metals

Prep Batch: 335182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111307-1	SW1	Total/NA	Solid	7471B	
500-111307-1 DU	SW1	Total/NA	Solid	7471B	
500-111307-1 MS	SW1	Total/NA	Solid	7471B	
500-111307-1 MSD	SW1	Total/NA	Solid	7471B	
500-111307-2	SW2	Total/NA	Solid	7471B	
500-111307-3	SW3	Total/NA	Solid	7471B	
500-111307-4	SW4	Total/NA	Solid	7471B	
500-111307-5	SW5	Total/NA	Solid	7471B	
500-111307-6	SW6	Total/NA	Solid	7471B	
500-111307-7	SW7	Total/NA	Solid	7471B	

TestAmerica Chicago

QC Association Summary

Client: TRC Environmental Corporation.
 Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Metals (Continued)

Prep Batch: 335182 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111307-8	SW8	Total/NA	Solid	7471B	
500-111307-9	TB1	Total/NA	Solid	7471B	
500-111307-10	TB2	Total/NA	Solid	7471B	
500-111307-11	TB3	Total/NA	Solid	7471B	
500-111307-12	TB4	Total/NA	Solid	7471B	
500-111307-13	TB5	Total/NA	Solid	7471B	
500-111307-14	TB6	Total/NA	Solid	7471B	
LCS 500-335182/13-A	Lab Control Sample	Total/NA	Solid	7471B	
MB 500-335182/12-A	Method Blank	Total/NA	Solid	7471B	

Prep Batch: 335321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111307-1	SW1	Total/NA	Solid	3050B	
500-111307-2	SW2	Total/NA	Solid	3050B	
500-111307-3	SW3	Total/NA	Solid	3050B	
500-111307-4	SW4	Total/NA	Solid	3050B	
500-111307-5	SW5	Total/NA	Solid	3050B	
500-111307-6	SW6	Total/NA	Solid	3050B	
500-111307-7	SW7	Total/NA	Solid	3050B	
500-111307-8	SW8	Total/NA	Solid	3050B	
500-111307-9	TB1	Total/NA	Solid	3050B	
500-111307-10	TB2	Total/NA	Solid	3050B	
500-111307-11	TB3	Total/NA	Solid	3050B	
500-111307-12	TB4	Total/NA	Solid	3050B	
500-111307-13	TB5	Total/NA	Solid	3050B	
500-111307-14	TB6	Total/NA	Solid	3050B	
500-111307-14 DU	TB6	Total/NA	Solid	3050B	
500-111307-14 MS	TB6	Total/NA	Solid	3050B	
500-111307-14 MSD	TB6	Total/NA	Solid	3050B	
LCS 500-335321/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 500-335321/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 335570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111307-1	SW1	Total/NA	Solid	6010B	335321
500-111307-2	SW2	Total/NA	Solid	6010B	335321
500-111307-3	SW3	Total/NA	Solid	6010B	335321
500-111307-4	SW4	Total/NA	Solid	6010B	335321
500-111307-5	SW5	Total/NA	Solid	6010B	335321
500-111307-6	SW6	Total/NA	Solid	6010B	335321
500-111307-7	SW7	Total/NA	Solid	6010B	335321
500-111307-8	SW8	Total/NA	Solid	6010B	335321
500-111307-9	TB1	Total/NA	Solid	6010B	335321
500-111307-10	TB2	Total/NA	Solid	6010B	335321
500-111307-11	TB3	Total/NA	Solid	6010B	335321
500-111307-12	TB4	Total/NA	Solid	6010B	335321
500-111307-13	TB5	Total/NA	Solid	6010B	335321
500-111307-14	TB6	Total/NA	Solid	6010B	335321
500-111307-14 DU	TB6	Total/NA	Solid	6010B	335321
500-111307-14 MS	TB6	Total/NA	Solid	6010B	335321
500-111307-14 MSD	TB6	Total/NA	Solid	6010B	335321

TestAmerica Chicago

QC Association Summary

Client: TRC Environmental Corporation.
 Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Metals (Continued)

Analysis Batch: 335570 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-335321/2-A	Lab Control Sample	Total/NA	Solid	6010B	335321
MB 500-335321/1-A	Method Blank	Total/NA	Solid	6010B	335321

Analysis Batch: 335762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111307-1	SW1	Total/NA	Solid	7471B	335182
500-111307-1 DU	SW1	Total/NA	Solid	7471B	335182
500-111307-1 MS	SW1	Total/NA	Solid	7471B	335182
500-111307-1 MSD	SW1	Total/NA	Solid	7471B	335182
500-111307-2	SW2	Total/NA	Solid	7471B	335182
500-111307-3	SW3	Total/NA	Solid	7471B	335182
500-111307-4	SW4	Total/NA	Solid	7471B	335182
500-111307-5	SW5	Total/NA	Solid	7471B	335182
500-111307-6	SW6	Total/NA	Solid	7471B	335182
500-111307-7	SW7	Total/NA	Solid	7471B	335182
500-111307-8	SW8	Total/NA	Solid	7471B	335182
500-111307-9	TB1	Total/NA	Solid	7471B	335182
500-111307-10	TB2	Total/NA	Solid	7471B	335182
500-111307-11	TB3	Total/NA	Solid	7471B	335182
500-111307-12	TB4	Total/NA	Solid	7471B	335182
500-111307-13	TB5	Total/NA	Solid	7471B	335182
500-111307-14	TB6	Total/NA	Solid	7471B	335182
LCS 500-335182/13-A	Lab Control Sample	Total/NA	Solid	7471B	335182
MB 500-335182/12-A	Method Blank	Total/NA	Solid	7471B	335182

General Chemistry

Analysis Batch: 334807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111307-1	SW1	Total/NA	Solid	Moisture	
500-111307-1 DU	SW1	Total/NA	Solid	Moisture	
500-111307-2	SW2	Total/NA	Solid	Moisture	
500-111307-3	SW3	Total/NA	Solid	Moisture	
500-111307-4	SW4	Total/NA	Solid	Moisture	
500-111307-5	SW5	Total/NA	Solid	Moisture	
500-111307-6	SW6	Total/NA	Solid	Moisture	
500-111307-7	SW7	Total/NA	Solid	Moisture	
500-111307-8	SW8	Total/NA	Solid	Moisture	
500-111307-9	TB1	Total/NA	Solid	Moisture	
500-111307-10	TB2	Total/NA	Solid	Moisture	
500-111307-11	TB3	Total/NA	Solid	Moisture	
500-111307-12	TB4	Total/NA	Solid	Moisture	
500-111307-13	TB5	Total/NA	Solid	Moisture	
500-111307-14	TB6	Total/NA	Solid	Moisture	

Surrogate Summary

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	12DCE	BFB	DBFM	TOL
		(71-127)	(71-120)	(70-120)	(75-120)
500-111307-1	SW1	105	85	107	97
500-111307-2	SW2	107	87	107	98
500-111307-3	SW3	104	85	104	104
500-111307-4	SW4	105	88	108	103
500-111307-5	SW5	106	86	107	98
500-111307-6	SW6	107	87	110	101
500-111307-6 - DL	SW6	105	86	109	100
500-111307-7	SW7	111	85	111	103
500-111307-8	SW8	107	84	108	99
500-111307-9	TB1	107	87	108	101
500-111307-10	TB2	107	87	109	97
500-111307-11	TB3	107	87	106	98
500-111307-12	TB4	108	87	107	98
500-111307-13	TB5	106	91	109	99
500-111307-14	TB6	107	87	106	101
LCS 500-336098/4	Lab Control Sample	100	87	106	98
MB 500-336098/6	Method Blank	103	87	106	98

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: TRC Environmental Corporation.
 Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-336098/6

Matrix: Solid

Analysis Batch: 336098

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/Kg			05/19/16 00:48	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/Kg			05/19/16 00:48	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/Kg			05/19/16 00:48	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/Kg			05/19/16 00:48	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/Kg			05/19/16 00:48	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/Kg			05/19/16 00:48	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/Kg			05/19/16 00:48	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/Kg			05/19/16 00:48	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/Kg			05/19/16 00:48	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/Kg			05/19/16 00:48	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/Kg			05/19/16 00:48	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/Kg			05/19/16 00:48	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/Kg			05/19/16 00:48	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/Kg			05/19/16 00:48	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/Kg			05/19/16 00:48	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/Kg			05/19/16 00:48	1
1,3,5-Trimethylbenzene	<0.38		1.0	0.38	ug/Kg			05/19/16 00:48	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/Kg			05/19/16 00:48	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/Kg			05/19/16 00:48	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/Kg			05/19/16 00:48	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/Kg			05/19/16 00:48	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/Kg			05/19/16 00:48	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/Kg			05/19/16 00:48	1
Benzene	<0.15		0.25	0.15	ug/Kg			05/19/16 00:48	1
Bromobenzene	<0.36		1.0	0.36	ug/Kg			05/19/16 00:48	1
Bromochloromethane	<0.43		1.0	0.43	ug/Kg			05/19/16 00:48	1
Bromodichloromethane	<0.37		1.0	0.37	ug/Kg			05/19/16 00:48	1
Bromoform	<0.48		1.0	0.48	ug/Kg			05/19/16 00:48	1
Bromomethane	<0.80		2.0	0.80	ug/Kg			05/19/16 00:48	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/Kg			05/19/16 00:48	1
Chlorobenzene	<0.39		1.0	0.39	ug/Kg			05/19/16 00:48	1
Chloroethane	<0.50		1.0	0.50	ug/Kg			05/19/16 00:48	1
Chloroform	<0.37		1.0	0.37	ug/Kg			05/19/16 00:48	1
Chloromethane	<0.32		1.0	0.32	ug/Kg			05/19/16 00:48	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/Kg			05/19/16 00:48	1
cis-1,3-Dichloropropane	<0.42		1.0	0.42	ug/Kg			05/19/16 00:48	1
Dibromochloromethane	<0.49		1.0	0.49	ug/Kg			05/19/16 00:48	1
Dibromomethane	<0.27		1.0	0.27	ug/Kg			05/19/16 00:48	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/Kg			05/19/16 00:48	1
Ethylbenzene	<0.18		0.25	0.18	ug/Kg			05/19/16 00:48	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/Kg			05/19/16 00:48	1
Isopropyl ether	<0.28		1.0	0.28	ug/Kg			05/19/16 00:48	1
Isopropylbenzene	<0.38		1.0	0.38	ug/Kg			05/19/16 00:48	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/Kg			05/19/16 00:48	1
Methylene Chloride	<1.6		5.0	1.6	ug/Kg			05/19/16 00:48	1
Naphthalene	<0.33		1.0	0.33	ug/Kg			05/19/16 00:48	1
n-Butylbenzene	<0.39		1.0	0.39	ug/Kg			05/19/16 00:48	1
N-Propylbenzene	<0.41		1.0	0.41	ug/Kg			05/19/16 00:48	1

TestAmerica Chicago

QC Sample Results

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-336098/6
Matrix: Solid
Analysis Batch: 336098

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	<0.36		1.0	0.36	ug/Kg			05/19/16 00:48	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/Kg			05/19/16 00:48	1
Styrene	<0.39		1.0	0.39	ug/Kg			05/19/16 00:48	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/Kg			05/19/16 00:48	1
Tetrachloroethene	<0.37		1.0	0.37	ug/Kg			05/19/16 00:48	1
Toluene	<0.15		0.25	0.15	ug/Kg			05/19/16 00:48	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/Kg			05/19/16 00:48	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/Kg			05/19/16 00:48	1
Trichloroethene	<0.16		0.50	0.16	ug/Kg			05/19/16 00:48	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/Kg			05/19/16 00:48	1
Vinyl chloride	<0.26		0.50	0.26	ug/Kg			05/19/16 00:48	1
Xylenes, Total	<0.22		0.50	0.22	ug/Kg			05/19/16 00:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		71 - 127		05/19/16 00:48	1
4-Bromofluorobenzene (Surr)	87		71 - 120		05/19/16 00:48	1
Dibromofluoromethane	106		70 - 120		05/19/16 00:48	1
Toluene-d8 (Surr)	98		75 - 120		05/19/16 00:48	1

Lab Sample ID: LCS 500-336098/4
Matrix: Solid
Analysis Batch: 336098

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	51.8		ug/Kg		104	68 - 125
1,1,1-Trichloroethane	50.0	48.8		ug/Kg		98	70 - 125
1,1,1,2-Tetrachloroethane	50.0	45.2		ug/Kg		90	68 - 125
1,1,1,2-Trichloroethane	50.0	49.3		ug/Kg		99	70 - 125
1,1-Dichloroethane	50.0	48.1		ug/Kg		96	70 - 125
1,1-Dichloroethene	50.0	52.9		ug/Kg		106	70 - 125
1,1-Dichloropropene	50.0	48.8		ug/Kg		98	70 - 125
1,2,3-Trichlorobenzene	50.0	49.6		ug/Kg		99	58 - 135
1,2,3-Trichloropropane	50.0	44.4		ug/Kg		89	63 - 125
1,2,4-Trichlorobenzene	50.0	46.2		ug/Kg		92	64 - 126
1,2,4-Trimethylbenzene	50.0	45.8		ug/Kg		92	70 - 125
1,2-Dibromo-3-Chloropropane	50.0	44.7		ug/Kg		89	51 - 125
1,2-Dibromoethane	50.0	49.6		ug/Kg		99	70 - 125
1,2-Dichlorobenzene	50.0	48.3		ug/Kg		97	70 - 125
1,2-Dichloroethane	50.0	47.4		ug/Kg		95	70 - 125
1,2-Dichloropropane	50.0	47.1		ug/Kg		94	70 - 125
1,3,5-Trimethylbenzene	50.0	46.3		ug/Kg		93	70 - 125
1,3-Dichlorobenzene	50.0	46.5		ug/Kg		93	70 - 125
1,3-Dichloropropane	50.0	47.6		ug/Kg		95	70 - 125
1,4-Dichlorobenzene	50.0	46.4		ug/Kg		93	70 - 125
2,2-Dichloropropane	50.0	37.1		ug/Kg		74	62 - 125
2-Chlorotoluene	50.0	43.0		ug/Kg		86	69 - 125
4-Chlorotoluene	50.0	44.2		ug/Kg		88	70 - 125
Benzene	50.0	46.9		ug/Kg		94	70 - 125

TestAmerica Chicago

QC Sample Results

Client: TRC Environmental Corporation.
 Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-336098/4
Matrix: Solid
Analysis Batch: 336098

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	50.0	48.8		ug/Kg		98	70 - 125
Bromochloromethane	50.0	53.0		ug/Kg		106	70 - 125
Bromodichloromethane	50.0	47.8		ug/Kg		96	70 - 125
Bromoform	50.0	51.7		ug/Kg		103	54 - 128
Bromomethane	50.0	54.5		ug/Kg		109	40 - 150
Carbon tetrachloride	50.0	55.7		ug/Kg		111	70 - 125
Chlorobenzene	50.0	49.0		ug/Kg		98	70 - 125
Chloroethane	50.0	45.0		ug/Kg		90	60 - 139
Chloroform	50.0	48.9		ug/Kg		98	70 - 125
Chloromethane	50.0	42.8		ug/Kg		86	60 - 140
cis-1,2-Dichloroethene	50.0	49.3		ug/Kg		99	70 - 125
cis-1,3-Dichloropropene	50.0	46.8		ug/Kg		94	70 - 125
Dibromochloromethane	50.0	50.2		ug/Kg		100	66 - 125
Dibromomethane	50.0	51.4		ug/Kg		103	70 - 125
Dichlorodifluoromethane	50.0	54.6		ug/Kg		109	51 - 140
Ethylbenzene	50.0	46.8		ug/Kg		94	70 - 125
Hexachlorobutadiene	50.0	52.9		ug/Kg		106	57 - 140
Isopropylbenzene	50.0	46.6		ug/Kg		93	70 - 125
Methyl tert-butyl ether	50.0	51.0		ug/Kg		102	67 - 125
Methylene Chloride	50.0	48.3		ug/Kg		97	68 - 125
Naphthalene	50.0	46.5		ug/Kg		93	50 - 136
n-Butylbenzene	50.0	44.1		ug/Kg		88	70 - 125
N-Propylbenzene	50.0	44.4		ug/Kg		89	70 - 125
p-Isopropyltoluene	50.0	46.7		ug/Kg		93	70 - 125
sec-Butylbenzene	50.0	46.2		ug/Kg		92	70 - 125
Styrene	50.0	47.7		ug/Kg		95	70 - 125
tert-Butylbenzene	50.0	46.6		ug/Kg		93	70 - 125
Tetrachloroethene	50.0	49.7		ug/Kg		99	70 - 125
Toluene	50.0	46.5		ug/Kg		93	70 - 125
trans-1,2-Dichloroethene	50.0	48.4		ug/Kg		97	70 - 125
trans-1,3-Dichloropropene	50.0	48.9		ug/Kg		98	70 - 125
Trichloroethene	50.0	49.8		ug/Kg		100	70 - 125
Trichlorofluoromethane	50.0	58.5		ug/Kg		117	60 - 126
Vinyl chloride	50.0	51.4		ug/Kg		103	70 - 126
Xylenes, Total	100	93.5		ug/Kg		94	70 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	100		71 - 127
4-Bromofluorobenzene (Surr)	87		71 - 120
Dibromofluoromethane	106		70 - 120
Toluene-d8 (Surr)	98		75 - 120

QC Sample Results

Client: TRC Environmental Corporation.
 Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 500-335321/1-A
Matrix: Solid
Analysis Batch: 335570

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 335321

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.46		1.0	0.46	mg/Kg		05/13/16 09:08	05/14/16 20:19	1
Barium	0.197	J	1.0	0.18	mg/Kg		05/13/16 09:08	05/14/16 20:19	1
Cadmium	<0.058		0.20	0.058	mg/Kg		05/13/16 09:08	05/14/16 20:19	1
Chromium	<0.17		1.0	0.17	mg/Kg		05/13/16 09:08	05/14/16 20:19	1
Lead	<0.25		0.50	0.25	mg/Kg		05/13/16 09:08	05/14/16 20:19	1
Selenium	<0.50		1.0	0.50	mg/Kg		05/13/16 09:08	05/14/16 20:19	1
Silver	<0.12		0.50	0.12	mg/Kg		05/13/16 09:08	05/14/16 20:19	1

Lab Sample ID: LCS 500-335321/2-A
Matrix: Solid
Analysis Batch: 335570

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 335321

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	10.0	9.06		mg/Kg		91	80 - 120
Barium	200	192		mg/Kg		96	80 - 120
Cadmium	5.00	4.61		mg/Kg		92	80 - 120
Chromium	20.0	19.1		mg/Kg		95	80 - 120
Lead	10.0	9.09		mg/Kg		91	80 - 120
Selenium	10.0	8.22		mg/Kg		82	80 - 120
Silver	5.00	4.52		mg/Kg		90	80 - 120

Lab Sample ID: 500-111307-14 MS
Matrix: Solid
Analysis Batch: 335570

Client Sample ID: TB6
Prep Type: Total/NA
Prep Batch: 335321

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	5.1		10.7	15.0		mg/Kg	☼	92	75 - 125
Barium	43	B	214	223		mg/Kg	☼	84	75 - 125
Cadmium	0.36		5.36	4.83		mg/Kg	☼	83	75 - 125
Chromium	15	V	21.4	33.2		mg/Kg	☼	86	75 - 125
Lead	23	F1	10.7	29.3	F1	mg/Kg	☼	56	75 - 125
Selenium	0.73	J F1	10.7	8.34	F1	mg/Kg	☼	71	75 - 125
Silver	<0.13		5.36	4.53		mg/Kg	☼	84	75 - 125

Lab Sample ID: 500-111307-14 MSD
Matrix: Solid
Analysis Batch: 335570

Client Sample ID: TB6
Prep Type: Total/NA
Prep Batch: 335321

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Arsenic	5.1		11.1	15.0		mg/Kg	☼	89	75 - 125	1	20
Barium	43	B	222	244		mg/Kg	☼	91	75 - 125	9	20
Cadmium	0.36		5.56	5.27		mg/Kg	☼	88	75 - 125	9	20
Chromium	15	V	22.2	37.5		mg/Kg	☼	102	75 - 125	12	20
Lead	23	F1	11.1	31.6		mg/Kg	☼	75	75 - 125	8	20
Selenium	0.73	J F1	11.1	9.13		mg/Kg	☼	76	75 - 125	9	20
Silver	<0.13		5.56	4.75		mg/Kg	☼	85	75 - 125	5	20

TestAmerica Chicago

QC Sample Results

Client: TRC Environmental Corporation.
 Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 500-111307-14 DU
Matrix: Solid
Analysis Batch: 335570

Client Sample ID: TB6
Prep Type: Total/NA
Prep Batch: 335321

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Arsenic	5.1		5.03		mg/Kg	☼	1	20
Barium	43	B	41.0		mg/Kg	☼	4	20
Cadmium	0.36		0.634	F3	mg/Kg	☼	54	20
Chromium	15	V	14.3		mg/Kg	☼	4	20
Lead	23	F1	42.1	F3	mg/Kg	☼	57	20
Selenium	0.73	J F1	0.788	J	mg/Kg	☼	8	20
Silver	<0.13		<0.12		mg/Kg	☼	NC	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 500-335182/12-A
Matrix: Solid
Analysis Batch: 335762

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 335182

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0088		0.017	0.0088	mg/Kg		05/12/16 14:00	05/16/16 15:57	1

Lab Sample ID: LCS 500-335182/13-A
Matrix: Solid
Analysis Batch: 335762

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 335182

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.167	0.163		mg/Kg		97	80 - 120

Lab Sample ID: 500-111307-1 MS
Matrix: Solid
Analysis Batch: 335762

Client Sample ID: SW1
Prep Type: Total/NA
Prep Batch: 335182

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.0084		0.0763	0.0839		mg/Kg	☼	110	75 - 125

Lab Sample ID: 500-111307-1 MSD
Matrix: Solid
Analysis Batch: 335762

Client Sample ID: SW1
Prep Type: Total/NA
Prep Batch: 335182

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.0084		0.0870	0.0958		mg/Kg	☼	110	75 - 125	13	20

Lab Sample ID: 500-111307-1 DU
Matrix: Solid
Analysis Batch: 335762

Client Sample ID: SW1
Prep Type: Total/NA
Prep Batch: 335182

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	<0.0084		0.00839	J	mg/Kg	☼	NC	20

TestAmerica Chicago

Lab Chronicle

Client: TRC Environmental Corporation.
 Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: SW1
Date Collected: 05/06/16 12:00
Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	334807	05/10/16 14:56	LWN	TAL CHI

Client Sample ID: SW1
Date Collected: 05/06/16 12:00
Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-1
Matrix: Solid
Percent Solids: 94.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			334474	05/06/16 12:00	WRE	TAL CHI
Total/NA	Analysis	8260B		50	336098	05/19/16 01:15	DJD	TAL CHI
Total/NA	Prep	3050B			335321	05/13/16 09:08	JEF	TAL CHI
Total/NA	Analysis	6010B		1	335570	05/14/16 21:06	PJ1	TAL CHI
Total/NA	Prep	7471B			335182	05/12/16 14:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	335762	05/16/16 17:54	MJD	TAL CHI

Client Sample ID: SW2
Date Collected: 05/06/16 12:00
Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	334807	05/10/16 14:56	LWN	TAL CHI

Client Sample ID: SW2
Date Collected: 05/06/16 12:00
Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-2
Matrix: Solid
Percent Solids: 91.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			334474	05/06/16 12:00	WRE	TAL CHI
Total/NA	Analysis	8260B		50	336098	05/19/16 01:42	DJD	TAL CHI
Total/NA	Prep	3050B			335321	05/13/16 09:08	JEF	TAL CHI
Total/NA	Analysis	6010B		1	335570	05/14/16 21:11	PJ1	TAL CHI
Total/NA	Prep	7471B			335182	05/12/16 14:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	335762	05/16/16 18:06	MJD	TAL CHI

Client Sample ID: SW3
Date Collected: 05/06/16 12:00
Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	334807	05/10/16 14:56	LWN	TAL CHI

Lab Chronicle

Client: TRC Environmental Corporation.
 Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: SW3

Lab Sample ID: 500-111307-3

Date Collected: 05/06/16 12:00

Matrix: Solid

Date Received: 05/07/16 11:00

Percent Solids: 86.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			334474	05/06/16 12:00	WRE	TAL CHI
Total/NA	Analysis	8260B		50	336098	05/19/16 02:08	DJD	TAL CHI
Total/NA	Prep	3050B			335321	05/13/16 09:08	JEF	TAL CHI
Total/NA	Analysis	6010B		1	335570	05/14/16 21:16	PJ1	TAL CHI
Total/NA	Prep	7471B			335182	05/12/16 14:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	335762	05/16/16 16:32	MJD	TAL CHI

Client Sample ID: SW4

Lab Sample ID: 500-111307-4

Date Collected: 05/06/16 12:00

Matrix: Solid

Date Received: 05/07/16 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	334807	05/10/16 14:56	LWN	TAL CHI

Client Sample ID: SW4

Lab Sample ID: 500-111307-4

Date Collected: 05/06/16 12:00

Matrix: Solid

Date Received: 05/07/16 11:00

Percent Solids: 87.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			334474	05/06/16 12:00	WRE	TAL CHI
Total/NA	Analysis	8260B		100	336098	05/19/16 05:42	DJD	TAL CHI
Total/NA	Prep	3050B			335321	05/13/16 09:08	JEF	TAL CHI
Total/NA	Analysis	6010B		1	335570	05/14/16 21:21	PJ1	TAL CHI
Total/NA	Prep	7471B			335182	05/12/16 14:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	335762	05/16/16 16:34	MJD	TAL CHI

Client Sample ID: SW5

Lab Sample ID: 500-111307-5

Date Collected: 05/06/16 12:00

Matrix: Solid

Date Received: 05/07/16 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	334807	05/10/16 14:56	LWN	TAL CHI

Client Sample ID: SW5

Lab Sample ID: 500-111307-5

Date Collected: 05/06/16 12:00

Matrix: Solid

Date Received: 05/07/16 11:00

Percent Solids: 81.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			334474	05/06/16 12:00	WRE	TAL CHI
Total/NA	Analysis	8260B		50	336098	05/19/16 02:35	DJD	TAL CHI
Total/NA	Prep	3050B			335321	05/13/16 09:08	JEF	TAL CHI
Total/NA	Analysis	6010B		1	335570	05/14/16 21:27	PJ1	TAL CHI
Total/NA	Prep	7471B			335182	05/12/16 14:00	MJD	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: TRC Environmental Corporation.
 Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: SW5

Date Collected: 05/06/16 12:00
 Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-5

Matrix: Solid
 Percent Solids: 81.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7471B		1	335762	05/16/16 16:36	MJD	TAL CHI

Client Sample ID: SW6

Date Collected: 05/06/16 12:00
 Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	334807	05/10/16 14:56	LWN	TAL CHI

Client Sample ID: SW6

Date Collected: 05/06/16 12:00
 Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-6

Matrix: Solid
 Percent Solids: 86.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			334474	05/06/16 12:00	WRE	TAL CHI
Total/NA	Analysis	8260B		100	336098	05/19/16 07:02	DJD	TAL CHI
Total/NA	Prep	5035	DL		334474	05/06/16 12:00	WRE	TAL CHI
Total/NA	Analysis	8260B	DL	1000	336098	05/19/16 07:29	DJD	TAL CHI
Total/NA	Prep	3050B			335321	05/13/16 09:08	JEF	TAL CHI
Total/NA	Analysis	6010B		1	335570	05/14/16 21:32	PJ1	TAL CHI
Total/NA	Prep	7471B			335182	05/12/16 14:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	335762	05/16/16 16:57	MJD	TAL CHI

Client Sample ID: SW7

Date Collected: 05/06/16 12:00
 Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	334807	05/10/16 14:56	LWN	TAL CHI

Client Sample ID: SW7

Date Collected: 05/06/16 12:00
 Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-7

Matrix: Solid
 Percent Solids: 85.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			334474	05/06/16 12:00	WRE	TAL CHI
Total/NA	Analysis	8260B		50	336098	05/19/16 03:02	DJD	TAL CHI
Total/NA	Prep	3050B			335321	05/13/16 09:08	JEF	TAL CHI
Total/NA	Analysis	6010B		1	335570	05/14/16 21:37	PJ1	TAL CHI
Total/NA	Prep	7471B			335182	05/12/16 14:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	335762	05/16/16 16:59	MJD	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: TRC Environmental Corporation.
 Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: SW8

Lab Sample ID: 500-111307-8

Date Collected: 05/06/16 12:00

Matrix: Solid

Date Received: 05/07/16 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	334807	05/10/16 14:56	LWN	TAL CHI

Client Sample ID: SW8

Lab Sample ID: 500-111307-8

Date Collected: 05/06/16 12:00

Matrix: Solid

Date Received: 05/07/16 11:00

Percent Solids: 85.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			334474	05/06/16 12:00	WRE	TAL CHI
Total/NA	Analysis	8260B		100	336098	05/19/16 06:09	DJD	TAL CHI
Total/NA	Prep	3050B			335321	05/13/16 09:08	JEF	TAL CHI
Total/NA	Analysis	6010B		1	335570	05/14/16 21:42	PJ1	TAL CHI
Total/NA	Prep	7471B			335182	05/12/16 14:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	335762	05/16/16 17:03	MJD	TAL CHI

Client Sample ID: TB1

Lab Sample ID: 500-111307-9

Date Collected: 05/06/16 12:00

Matrix: Solid

Date Received: 05/07/16 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	334807	05/10/16 14:56	LWN	TAL CHI

Client Sample ID: TB1

Lab Sample ID: 500-111307-9

Date Collected: 05/06/16 12:00

Matrix: Solid

Date Received: 05/07/16 11:00

Percent Solids: 87.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			334474	05/06/16 12:00	WRE	TAL CHI
Total/NA	Analysis	8260B		50	336098	05/19/16 03:28	DJD	TAL CHI
Total/NA	Prep	3050B			335321	05/13/16 09:08	JEF	TAL CHI
Total/NA	Analysis	6010B		1	335570	05/14/16 21:47	PJ1	TAL CHI
Total/NA	Prep	7471B			335182	05/12/16 14:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	335762	05/16/16 17:05	MJD	TAL CHI

Client Sample ID: TB2

Lab Sample ID: 500-111307-10

Date Collected: 05/06/16 12:00

Matrix: Solid

Date Received: 05/07/16 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	334807	05/10/16 14:56	LWN	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: TB2

Lab Sample ID: 500-111307-10

Date Collected: 05/06/16 12:00

Matrix: Solid

Date Received: 05/07/16 11:00

Percent Solids: 87.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			334474	05/06/16 12:00	WRE	TAL CHI
Total/NA	Analysis	8260B		50	336098	05/19/16 03:55	DJD	TAL CHI
Total/NA	Prep	3050B			335321	05/13/16 09:08	JEF	TAL CHI
Total/NA	Analysis	6010B		1	335570	05/14/16 22:00	PJ1	TAL CHI
Total/NA	Prep	7471B			335182	05/12/16 14:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	335762	05/16/16 17:08	MJD	TAL CHI

Client Sample ID: TB3

Lab Sample ID: 500-111307-11

Date Collected: 05/06/16 12:00

Matrix: Solid

Date Received: 05/07/16 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	334807	05/10/16 14:56	LWN	TAL CHI

Client Sample ID: TB3

Lab Sample ID: 500-111307-11

Date Collected: 05/06/16 12:00

Matrix: Solid

Date Received: 05/07/16 11:00

Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			334474	05/06/16 12:00	WRE	TAL CHI
Total/NA	Analysis	8260B		50	336098	05/19/16 04:22	DJD	TAL CHI
Total/NA	Prep	3050B			335321	05/13/16 09:08	JEF	TAL CHI
Total/NA	Analysis	6010B		1	335570	05/14/16 22:05	PJ1	TAL CHI
Total/NA	Prep	7471B			335182	05/12/16 14:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	335762	05/16/16 17:11	MJD	TAL CHI

Client Sample ID: TB4

Lab Sample ID: 500-111307-12

Date Collected: 05/06/16 12:00

Matrix: Solid

Date Received: 05/07/16 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	334807	05/10/16 14:56	LWN	TAL CHI

Client Sample ID: TB4

Lab Sample ID: 500-111307-12

Date Collected: 05/06/16 12:00

Matrix: Solid

Date Received: 05/07/16 11:00

Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			334474	05/06/16 12:00	WRE	TAL CHI
Total/NA	Analysis	8260B		50	336098	05/19/16 04:49	DJD	TAL CHI
Total/NA	Prep	3050B			335321	05/13/16 09:08	JEF	TAL CHI
Total/NA	Analysis	6010B		1	335570	05/14/16 22:10	PJ1	TAL CHI
Total/NA	Prep	7471B			335182	05/12/16 14:00	MJD	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: TRC Environmental Corporation.
 Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Client Sample ID: TB4
Date Collected: 05/06/16 12:00
Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-12
Matrix: Solid
Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7471B		1	335762	05/16/16 17:14	MJD	TAL CHI

Client Sample ID: TB5
Date Collected: 05/06/16 12:00
Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	334807	05/10/16 14:56	LWN	TAL CHI

Client Sample ID: TB5
Date Collected: 05/06/16 12:00
Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-13
Matrix: Solid
Percent Solids: 86.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			334474	05/06/16 12:00	WRE	TAL CHI
Total/NA	Analysis	8260B		50	336098	05/19/16 05:15	DJD	TAL CHI
Total/NA	Prep	3050B			335321	05/13/16 09:08	JEF	TAL CHI
Total/NA	Analysis	6010B		1	335570	05/14/16 22:15	PJ1	TAL CHI
Total/NA	Prep	7471B			335182	05/12/16 14:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	335762	05/16/16 17:16	MJD	TAL CHI

Client Sample ID: TB6
Date Collected: 05/06/16 12:00
Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	334807	05/10/16 14:56	LWN	TAL CHI

Client Sample ID: TB6
Date Collected: 05/06/16 12:00
Date Received: 05/07/16 11:00

Lab Sample ID: 500-111307-14
Matrix: Solid
Percent Solids: 84.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			334474	05/06/16 12:00	WRE	TAL CHI
Total/NA	Analysis	8260B		100	336098	05/19/16 06:35	DJD	TAL CHI
Total/NA	Prep	3050B			335321	05/13/16 09:08	JEF	TAL CHI
Total/NA	Analysis	6010B		1	335570	05/14/16 22:21	PJ1	TAL CHI
Total/NA	Prep	7471B			335182	05/12/16 14:00	MJD	TAL CHI
Total/NA	Analysis	7471B		1	335762	05/16/16 17:19	MJD	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Certification Summary

Client: TRC Environmental Corporation.
Project/Site: STH 38 Tank Removal 257062.0000.0000

TestAmerica Job ID: 500-111307-1

Laboratory: TestAmerica Chicago

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999580010	08-31-16

1

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15


2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

Report To _____ (optional)
 Contact: W. STAPEL
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: wstapel@trcsolutions.com

Bill To _____ (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-111307
 Chain of Custody Number: _____
 Page 1 of 2
 Temperature °C of Cooler: 29

Client		Client Project #		Preservative		Parameter		Matrix		Comments
Project Name		Lab Project #		Sampling		Matrix		Matrix		
Project Location/State		Lab Project #		Date		Time		# of Containers		Matrix
Sampler		Lab PM		Date		Time		# of Containers		
<u>TRC</u>		<u>STH 38 TANK REMOVAL</u>								 500-111307 COC 9. Other
<u>WISCONSIN</u>		<u>S. FREDRICK</u>								
<u>W. STAPEL</u>		<u>S. FREDRICK</u>								Matrix Key: 4° to 4° 4° to 4° 4° to 4°
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	Matrix	Matrix	Matrix	
<u>1</u>		<u>SW1</u>	<u>5/6</u>	<u>12 PM</u>	<u>2</u>	<u>S</u>	<u>X</u>	<u>X</u>		
<u>2</u>		<u>SW2</u>					<u>X</u>	<u>X</u>		
<u>3</u>		<u>SW3</u>					<u>X</u>	<u>X</u>		
<u>4</u>		<u>SW4</u>					<u>X</u>	<u>X</u>		
<u>5</u>		<u>SW5</u>					<u>X</u>	<u>X</u>		
<u>6</u>		<u>SW6</u>					<u>X</u>	<u>X</u>		
<u>7</u>		<u>SW7</u>					<u>X</u>	<u>X</u>		
<u>8</u>		<u>SW8</u>					<u>X</u>	<u>X</u>		
<u>9</u>		<u>TB1</u>					<u>X</u>	<u>X</u>		
<u>10</u>		<u>TB2</u>					<u>X</u>	<u>X</u>		

Turnaround Time Required (Business Days)
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other

Requested Due Date _____

Sample Disposal
 Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By _____	Company _____	Date _____	Time _____	Received By <u>Shil Seung</u>	Company <u>TACTE</u>	Date <u>05/07/16</u>	Time <u>11:00</u>	Lab Courier _____
Relinquished By _____	Company _____	Date _____	Time _____	Received By _____	Company _____	Date _____	Time _____	Shipped <u>EX SATURDAY</u>
Relinquished By _____	Company _____	Date _____	Time _____	Received By _____	Company _____	Date _____	Time _____	Hand Delivered _____

- Matrix Key
- WW - Wastewater
 - W - Water
 - S - Soil
 - SL - Sludge
 - MS - Miscellaneous
 - OL - Oil
 - A - Air
 - SE - Sediment
 - SO - Soil
 - L - Leachate
 - WI - Wipe
 - DW - Drinking Water
 - O - Other

Client Comments: _____

Lab Comments: _____



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
 Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional) _____ Bill To (optional) _____
 Contact: W. STAPEL _____ Contact: _____
 Company: _____ Company: _____
 Address: _____ Address: _____
 Address: _____ Address: _____
 Phone: _____ Phone: _____
 Fax: _____ Fax: _____
 E-Mail: wstapel@trresolutions.com PO#/Reference# _____

Chain of Custody Record

Lab Job #: 500-111307
 Chain of Custody Number: _____
 Page 2 of 2
 Temperature °C of Cooler: _____

Client		Client Project #		Preservative		Parameter														Preservative Key	
<u>TRE</u>																				1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Project Location/State		Lab Project #		Lab PM														Comments	
<u>SIH 3B TANK REMOVAL</u>		<u>WISCONSIN</u>				<u>S. FREDRICK</u>															
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	DCCA Metals	TOTALS	VOCs												
			Date	Time																	
<u>11</u>		<u>TB 3</u>	<u>5/6</u>	<u>12 PM</u>	<u>2</u>	<u>S</u>	<u>X</u>		<u>X</u>												
<u>12</u>		<u>TB 4</u>	↓	↓	↓	↓	<u>X</u>		<u>X</u>												
<u>13</u>		<u>TB 5</u>	↓	↓	↓	↓	<u>X</u>		<u>X</u>												
<u>14</u>		<u>TB 6</u>	↓	↓	↓	↓	<u>X</u>		<u>X</u>												

Turnaround Time Required (Business Days):
 ___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days 10 Days ___ 15 Days ___ Other
 Requested Due Date: _____

Sample Disposal:
 Return to Client Disposal by Lab Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
				<u>duw Saug</u>	<u>TH-ETL</u>	<u>05/07/16</u>	<u>11:00</u>

Lab Courier: _____
 Shipped: FX SATURDAY
 Hand Delivered: _____

Matrix Key:
 WW - Wastewater SE - Sediment
 W - Water SO - Soil
 S - Soil L - Leachate
 SL - Sludge WI - Wipe
 MS - Miscellaneous DW - Drinking Water
 OL - Oil O - Other
 A - Air

Client Comments: _____
 Lab Comments: _____

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

ORIGIN ID: RLA (262) 825-2045
 TILER STREET
 PC ENVIRONMENTAL
 150 N PATRICK BLVD, SUITE 180
 BROOKFIELD, WI 53045
 UNITED STATES US

SHIP DATE: 08MAY16
 COTWGT: 20.00 LB
 CAD: 1898639INET1373
 BILL RECEIPT

TO: **ATTN: SAMPLE RECEIVING**
TEST AMERICA - CHICAGO
2417 BOND ST

UNIVERSITY PARK IL 60484
 (708) 534-5200 REF:
 NV. DEPT:

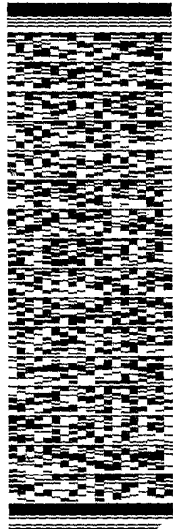
RTD
FZ 0



16323/72.
 0450
 05.07



500-111307 Waybill



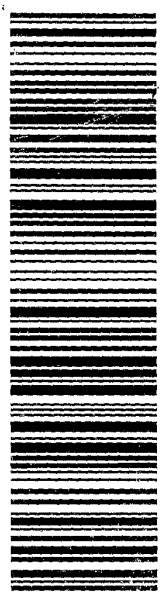
1618169226591ur

TRK# 7762 8591 0450
 (0201)

MON - 09 MAY 10:30A
 PRIORITY OVERNIGHT

79 JOTA

60484
 IL-US
 ORD



Login Sample Receipt Checklist

Client: TRC Environmental Corporation.

Job Number: 500-111307-1

Login Number: 111307

List Source: TestAmerica Chicago

List Number: 1

Creator: Sanchez, Ariel M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Appendix H Cumulative Hazard Index and Cancer Risk Calculations

Direct-Contact **Exceedance - Hazard - Risk** Calculation Summary from Soil Data

BRRTS # : SW 1	# of Soil-Concentration Entries: 6	Number of Individual Exceedance: 0	(Cumulative) Hazard Index: 0.0032	(Cumulative) Cancer Risk: 0.0E+00
Bottom-Line:		Yes, levels are below direct-contact concern.		

Date of Entry: 5/31/2016. List below only has contaminants with data.
 Date of Worksheet Used: 12/11/2015.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Arsenic, Inorganic	7440-38-2	34.3	0.613	0.613	ca	8.	1.5			
Barium	7440-39-3	15,300.	-	15,300.	nc	364.	11.			
Chromium, Total	7440-47-3	-	-			44.	3.6			
Lead and Compounds	7439-92-1	-	-	400.	nc	52.	6.1			
Selenium	7782-49-2	391.	-	391.	nc		1.1		0.0028	
Silver	7440-22-4	391.	-	391.	nc		0.15		0.0004	

Created By: M. Kahrilas 5/31/2016
 Checked By: L. Auner 6/01/2016

Direct-Contact **Exceedance - Hazard - Risk** Calculation Summary from Soil Data

BRRTS # : SW 2	# of Soil-Concentration Entries: 6	Number of Individual Exceedance 0	(Cumulative) Hazard Index 0.0019	(Cumulative) Cancer Risk 0.0E+00
Bottom-Line:		Yes, levels are below direct-contact concern.		

Date of Entry: 5/31/2016. List below only has contaminants with data.
 Date of Worksheet Used: 12/11/2015.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Arsenic, Inorganic	7440-38-2	34.3	0.613	0.613	ca	8.	2.4			
Barium	7440-39-3	15,300.	-	15,300.	nc	364.	15.			
Cadmium (Diet)	7440-43-9	70.	2,110.	70.	nc	1.	0.18			
Chromium, Total	7440-47-3	-	-	-	-	44.	4.5			
Lead and Compounds	7439-92-1	-	-	400.	nc	52.	5.2			
Selenium	7782-49-2	391.	-	391.	nc	-	0.74		0.0019	

Direct-Contact **Exceedance - Hazard - Risk** Calculation Summary from Soil Data

BRRTS # : SW 3	# of Soil-Concentration Entries: 15	Number of Individual Exceedance 0	(Cumulative) Hazard Index 0.008	(Cumulative) Cancer Risk 9.3E-08
Bottom-Line:		Yes, levels are below direct-contact concern.		

Date of Entry: 5/31/2016. List below only has contaminants with data.
 Date of Worksheet Used: 12/11/2015.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Benzene	71-43-2	111.	1.49	1.49	ca		0.12		0.0011	8.1E-08
Trimethylbenzene, 1,2,4-	95-63-6	89.8	-	89.8	nc		0.072		0.0008	
Trimethylbenzene, 1,3,5-	108-67-8	782.	-	182.	Csat		0.069		0.0001	
Naphthalene	91-20-3	188.	5.15	5.15	ca		0.062		0.0003	1.2E-08
Arsenic, Inorganic	7440-38-2	34.3	0.613	0.613	ca	8.	4.4			
Barium	7440-39-3	15,300.	-	15,300.	nc	364.	34.			
Cadmium (Diet)	7440-43-9	70.	2,110.	70.	nc	1.	0.23			
Chromium, Total	7440-47-3	-	-	-		44.	13.			
Mercury (elemental)	7439-97-6	16.9	-	3.13	Csat		0.079		0.0047	
Lead and Compounds	7439-92-1	-	-	400.	nc	52.	9.3			
Butylbenzene, n-	104-51-8	3,910.	-	108.	Csat		0.69		0.0002	
Butylbenzene, sec-	135-98-8	7,820.	-	145.	Csat		0.48		0.0001	
Cumene	98-82-8	2,660.	-	268.	Csat		0.89		0.0003	
Isopropyltoluene, p-	99-87-6	-	-	162.	Csat		0.31			
Propyl benzene	103-65-1	4,630.	-	264.	Csat		1.9		0.0004	

Created By: M. Kahrilas 5/31/2016
 Checked By: L. Auner 6/01/2016

Direct-Contact **Exceedance - Hazard - Risk** Calculation Summary from Soil Data

BRRTS # : SW 4	# of Soil-Concentration Entries: 12	Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
	Bottom-Line:	0	0.008	7.4E-08
	Yes, levels are below direct-contact concern.			

Date of Entry: 5/31/2016. List below only has contaminants with data.
Date of Worksheet Used: 12/11/2015.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Benzene	71-43-2	111.	1.49	1.49	ca		0.11		0.001	7.4E-08
Arsenic, Inorganic	7440-38-2	34.3	0.613	0.613	ca	8.	5.6			
Barium	7440-39-3	15,300.	-	15,300.	nc	364.	33.			
Cadmium (Diet)	7440-43-9	70.	2,110.	70.	nc	1.	0.22			
Chromium, Total	7440-47-3	-	-			44.	14.			
Mercury (elemental)	7439-97-6	16.9	-	3.13	Csat		0.078		0.0046	
Lead and Compounds	7439-92-1	-	-	400.	nc	52.	9.7			
Selenium	7782-49-2	391.	-	391.	nc		0.53		0.0014	
Butylbenzene, sec-	135-98-8	7,820.	-	145.	Csat		0.74		0.0001	
Cumene	98-82-8	2,660.	-	268.	Csat		1.3		0.0005	
Isopropyltoluene, p-	99-87-6	-	-	162.	Csat		0.32			
Propyl benzene	103-65-1	4,630.	-	264.	Csat		2.		0.0004	

Created By: M. Kahrilas 5/31/2016
Checked By: L. Auner 6/01/2016

Direct-Contact *Exceedance - Hazard - Risk* Calculation Summary from Soil Data

BRRTS # : SW 5	# of Soil-Concentration Entries: 8	Number of Individual Exceedance 0	(Cumulative) Hazard Index 0.0086	(Cumulative) Cancer Risk 0.0E+00
Bottom-Line:		Yes, levels are below direct-contact concern.		

Date of Entry: 5/31/2016. List below only has contaminants with data.
 Date of Worksheet Used: 12/11/2015.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Trimethylbenzene, 1,2,4-	95-63-6	89.8	-	89.8	nc		0.052		0.0006	
Arsenic, Inorganic	7440-38-2	34.3	0.613	0.613	ca	8.	7.2			
Barium	7440-39-3	15,300.	-	15,300.	nc	364.	78.			
Cadmium (Diet)	7440-43-9	70.	2,110.	70.	nc	1.	0.24			
Chromium, Total	7440-47-3	-	-			44.	27.			
Mercury (elemental)	7439-97-6	16.9	-	3.13	Csat		0.11		0.0065	
Lead and Compounds	7439-92-1	-	-	400.	nc	52.	20.			
Selenium	7782-49-2	391.	-	391.	nc		0.59		0.0015	

Created By: M. Kahrilas 5/31/2016
 Checked By: L. Auner 6/01/2016

Direct-Contact **Exceedance - Hazard - Risk** Calculation Summary from Soil Data

BRRTS # : SW 6	# of Soil-Concentration Entries: 17	Number of Individual Exceedance 1	(Cumulative) Hazard Index 0.5887	(Cumulative) Cancer Risk 1.9E-06
Bottom-Line: NO! This NON-INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.				

Date of Entry: 5/31/2016. List below only has contaminants with data.
 Date of Worksheet Used: 12/11/2015.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Benzene	71-43-2	111.	1.49	1.49	ca		0.31		0.0028	2.1E-07
Toluene	108-88-3	5,300.	-	818.	Csat		0.089		0.	
Xylenes	1330-20-7	878.	-	260.	Csat		0.36		0.0004	
Trimethylbenzene, 1,2,4-	95-63-6	89.8	-	89.8	nc		46.		0.5122	
Trimethylbenzene, 1,3,5-	108-67-8	782.	-	182.	Csat		16.		0.0205	
Naphthalene	91-20-3	188.	5.15	5.15	ca		8.8	E	0.0468	1.7E-06
Arsenic, Inorganic	7440-38-2	34.3	0.613	0.613	ca	8.	5.4			
Barium	7440-39-3	15,300.	-	15,300.	nc	364.	42.			
Cadmium (Diet)	7440-43-9	70.	2,110.	70.	nc	1.	0.31			
Chromium, Total	7440-47-3	-	-	-		44.	16.			
Mercury (elemental)	7439-97-6	16.9	-	3.13	Csat		0.023		0.0014	
Lead and Compounds	7439-92-1	-	-	400.	nc	52.	12.			
Butylbenzene, n-	104-51-8	3,910.	-	108.	Csat		4.8		0.0012	
Butylbenzene, sec-	135-98-8	7,820.	-	145.	Csat		1.2		0.0002	
Cumene	98-82-8	2,660.	-	268.	Csat		3.		0.0011	
Isopropyltoluene, p-	99-87-6	-	-	162.	Csat		0.88			
Propyl benzene	103-65-1	4,630.	-	264.	Csat		9.6		0.0021	

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 Checked By: L. Auner 6/01/2016

Direct-Contact **Exceedance - Hazard - Risk** Calculation Summary from Soil Data

BRRTS # : SW 7	# of Soil-Concentration Entries: 14	Number of Individual Exceedance 0	(Cumulative) Hazard Index 0.0126	(Cumulative) Cancer Risk 9.8E-08
Bottom-Line:		Yes, levels are below direct-contact concern.		

Date of Entry: 5/31/2016. List below only has contaminants with data.
 Date of Worksheet Used: 12/11/2015.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Benzene	71-43-2	111.	1.49	1.49	ca		0.036		0.0003	2.4E-08
Naphthalene	91-20-3	188.	5.15	5.15	ca		0.38		0.002	7.4E-08
Arsenic, Inorganic	7440-38-2	34.3	0.613	0.613	ca	8.	4.6			
Barium	7440-39-3	15,300.	-	15,300.	nc	364.	35.			
Cadmium (Diet)	7440-43-9	70.	2,110.	70.	nc	1.	0.27			
Chromium, Total	7440-47-3	-	-			44.	13.			
Mercury (elemental)	7439-97-6	16.9	-	3.13	Csat		0.12		0.0071	
Lead and Compounds	7439-92-1	-	-	400.	nc	52.	20.			
Selenium	7782-49-2	391.	-	391.	nc		0.59		0.0015	
Butylbenzene, n-	104-51-8	3,910.	-	108.	Csat		1.5		0.0004	
Butylbenzene, sec-	135-98-8	7,820.	-	145.	Csat		0.73		0.0001	
Cumene	98-82-8	2,660.	-	268.	Csat		1.2		0.0005	
Isopropyltoluene, p-	99-87-6	-	-	162.	Csat		0.32			
Propyl benzene	103-65-1	4,630.	-	264.	Csat		3.4		0.0007	

Direct-Contact *Exceedance - Hazard - Risk* Calculation Summary from Soil Data

BRRTS # : SW 8	# of Soil-Concentration Entries: 9	Number of Individual Exceedance 0	(Cumulative) Hazard Index 0.0327	(Cumulative) Cancer Risk 5.7E-10
Bottom-Line:		Yes, levels are below direct-contact concern.		

Date of Entry: 5/31/2016. List below only has contaminants with data.
 Date of Worksheet Used: 12/11/2015.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Arsenic, Inorganic	7440-38-2	34.3	0.613	0.613	ca	8.	4.5			
Barium	7440-39-3	15,300.	-	15,300.	nc	364.	55.			
Cadmium (Diet)	7440-43-9	70.	2,110.	70.	nc	1.	1.2		0.0171	5.7E-10
Chromium, Total	7440-47-3	-	-			44.	14.			
Mercury (elemental)	7439-97-6	16.9	-	3.13	Csat		0.23		0.0136	
Lead and Compounds	7439-92-1	-	-	400.	nc	52.	98.			
Selenium	7782-49-2	391.	-	391.	nc		0.74		0.0019	
Cumene	98-82-8	2,660.	-	268.	Csat		0.089		0.	
Propyl benzene	103-65-1	4,630.	-	264.	Csat		0.24		0.0001	

Created By: M. Kahrilas 5/31/2016
 Checked By: L. Auner 6/01/2016

Direct-Contact **Exceedance - Hazard - Risk** Calculation Summary from Soil Data

BRRTS # : TB 1	# of Soil-Concentration Entries: 13	Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
		0	0.0078	3.0E-07
Bottom-Line:		Yes, levels are below direct-contact concern.		

Date of Entry: 6/1/2016. List below only has contaminants with data.
Date of Worksheet Used: 12/11/2015.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Benzene	71-43-2	111.	1.49	1.49	ca		0.44		0.004	3.0E-07
Arsenic, Inorganic	7440-38-2	34.3	0.613	0.613	ca	8.	4.2			
Barium	7440-39-3	15,300.	-	15,300.	nc	364.	39.			
Cadmium (Diet)	7440-43-9	70.	2,110.	70.	nc	1.	0.26			
Chromium, Total	7440-47-3	-	-	-		44.	15.			
Mercury (elemental)	7439-97-6	16.9	-	3.13	Csat		0.027		0.0016	
Lead and Compounds	7439-92-1	-	-	400.	nc	52.	9.5			
Selenium	7782-49-2	391.	-	391.	nc		0.65		0.0017	
Butylbenzene, n-	104-51-8	3,910.	-	108.	Csat		0.3		0.0001	
Butylbenzene, sec-	135-98-8	7,820.	-	145.	Csat		0.28		0.	
Cumene	98-82-8	2,660.	-	268.	Csat		0.65		0.0002	
Isopropyltoluene, p-	99-87-6	-	-	162.	Csat		0.13			
Propyl benzene	103-65-1	4,630.	-	264.	Csat		1.		0.0002	

Created By: M. Kahrilas 5/31/2016
Checked By: L. Auner 6/01/2016

Direct-Contact **Exceedance - Hazard - Risk** Calculation Summary from Soil Data

BRRTS # : TB 2	# of Soil-Concentration Entries: 14	Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
		0	0.0077	2.3E-07
Bottom-Line:		Yes, levels are below direct-contact concern.		

Date of Entry: 6/1/2016. List below only has contaminants with data.
Date of Worksheet Used: 12/11/2015.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Benzene	71-43-2	111.	1.49	1.49	ca		0.25		0.0023	1.7E-07
Trimethylbenzene, 1,2,4-	95-63-6	89.8	-	89.8	nc		0.064		0.0007	
Trimethylbenzene, 1,3,5-	108-67-8	782.	-	182.	Csat		0.083		0.0001	
Naphthalene	91-20-3	188.	5.15	5.15	ca		0.33		0.0018	6.4E-08
Arsenic, Inorganic	7440-38-2	34.3	0.613	0.613	ca	8.	4.6			
Barium	7440-39-3	15,300.	-	15,300.	nc	364.	33.			
Cadmium (Diet)	7440-43-9	70.	2,110.	70.	nc	1.	0.25			
Chromium, Total	7440-47-3	-	-			44.	12.			
Mercury (elemental)	7439-97-6	16.9	-	3.13	Csat		0.038		0.0022	
Lead and Compounds	7439-92-1	-	-	400.	nc	52.	10.			
Butylbenzene, sec-	135-98-8	7,820.	-	145.	Csat		0.27		0.	
Cumene	98-82-8	2,660.	-	268.	Csat		0.65		0.0002	
Isopropyltoluene, p-	99-87-6	-	-	162.	Csat		0.2			
Propyl benzene	103-65-1	4,630.	-	264.	Csat		1.5		0.0003	

Created By: M. Kahrilas 5/31/2016
Checked By: L. Auner 6/01/2016

Direct-Contact **Exceedance - Hazard - Risk** Calculation Summary from Soil Data

BRRTS # : TB 3	# of Soil-Concentration Entries: 15	Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
		1	0.4445	2.5E-05
Bottom-Line: NO! This NON-INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.				

Date of Entry: 5/31/2016. List below only has contaminants with data.
Date of Worksheet Used: 12/11/2015.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Benzene	71-43-2	111.	1.49	1.49	ca		0.51		0.0046	3.4E-07
Xylenes	1330-20-7	878.	-	260.	Csat		0.036		0.	
Trimethylbenzene, 1,3,5-	108-67-8	782.	-	182.	Csat		0.15		0.0002	
Naphthalene	91-20-3	188.	5.15	5.15	ca		0.071		0.0004	1.4E-08
Arsenic, Inorganic	7440-38-2	34.3	0.613	0.613	ca	8.	15.	E	0.4373	2.4E-05
Barium	7440-39-3	15,300.	-	15,300.	nc	364.	35.			
Cadmium (Diet)	7440-43-9	70.	2,110.	70.	nc	1.	0.22			
Chromium, Total	7440-47-3	-	-	-		44.	16.			
Mercury (elemental)	7439-97-6	16.9	-	3.13	Csat		0.024		0.0014	
Lead and Compounds	7439-92-1	-	-	400.	nc	52.	20.			
Butylbenzene, n-	104-51-8	3,910.	-	108.	Csat		0.28		0.0001	
Butylbenzene, sec-	135-98-8	7,820.	-	145.	Csat		0.21		0.	
Cumene	98-82-8	2,660.	-	268.	Csat		0.65		0.0002	
Isopropyltoluene, p-	99-87-6	-	-	162.	Csat		0.17			
Propyl benzene	103-65-1	4,630.	-	264.	Csat		1.2		0.0003	

Created By: M. Kahrilas 5/31/2016

Checked By: L. Auner 6/01/2016

Direct-Contact **Exceedance - Hazard - Risk** Calculation Summary from Soil Data

BRRTS # : TB 4	# of Soil-Concentration Entries: 18	Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
	Bottom-Line:	0	0.0193	9.6E-07
		Yes, levels are below direct-contact concern.		

Date of Entry: 6/2/2016. List below only has contaminants with data.
Date of Worksheet Used: 12/11/2015.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Benzene	71-43-2	111.	1.49	1.49	ca		1.4		0.0126	9.4E-07
Toluene	108-88-3	5,300.	-	818.	Csat		0.08		0.	
Xylenes	1330-20-7	878.	-	260.	Csat		0.064		0.0001	
Trimethylbenzene, 1,2,4-	95-63-6	89.8	-	89.8	nc		0.13		0.0014	
Trimethylbenzene, 1,3,5-	108-67-8	782.	-	182.	Csat		0.23		0.0003	
Naphthalene	91-20-3	188.	5.15	5.15	ca		0.12		0.0006	2.3E-08
Arsenic, Inorganic	7440-38-2	34.3	0.613	0.613	ca	8.	4.			
Barium	7440-39-3	15,300.	-	15,300.	nc	364.	41.			
Cadmium (Diet)	7440-43-9	70.	2,110.	70.	nc	1.	0.28			
Chromium, Total	7440-47-3	-	-			44.	16.			
Mercury (elemental)	7439-97-6	16.9	-	3.13	Csat		0.024		0.0014	
Lead and Compounds	7439-92-1	-	-	400.	nc	52.	11.			
Selenium	7782-49-2	391.	-	391.	nc		0.82		0.0021	
Butylbenzene, n-	104-51-8	3,910.	-	108.	Csat		0.28		0.0001	
Butylbenzene, sec-	135-98-8	7,820.	-	145.	Csat		0.26		0.	
Cumene	98-82-8	2,660.	-	268.	Csat		0.77		0.0003	
Isopropyltoluene, p-	99-87-6	-	-	162.	Csat		0.23			
Propyl benzene	103-65-1	4,630.	-	264.	Csat		1.4		0.0003	

Created By: M. Kahrilas 5/31/2016

Checked By: L. Auner 6/01/2016

Direct-Contact **Exceedance - Hazard - Risk** Calculation Summary from Soil Data

BRRTS # : TB 5	# of Soil-Concentration Entries: 17	Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
	Bottom-Line:	0	0.0125	6.3E-07
		Yes, levels are below direct-contact concern.		

Date of Entry: 6/1/2016. List below only has contaminants with data.
Date of Worksheet Used: 12/11/2015.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To- Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Benzene	71-43-2	111.	1.49	1.49	ca		0.92		0.0083	6.2E-07
Toluene	108-88-3	5,300.	-	818.	Csat		0.04		0.	
Xylenes	1330-20-7	878.	-	260.	Csat		0.055		0.0001	
Trimethylbenzene, 1,2,4-	95-63-6	89.8	-	89.8	nc		0.12		0.0013	
Trimethylbenzene, 1,3,5-	108-67-8	782.	-	182.	Csat		0.2		0.0003	
Naphthalene	91-20-3	188.	5.15	5.15	ca		0.081		0.0004	1.6E-08
Arsenic, Inorganic	7440-38-2	34.3	0.613	0.613	ca	8.	5.4			
Barium	7440-39-3	15,300.	-	15,300.	nc	364.	39.			
Cadmium (Diet)	7440-43-9	70.	2,110.	70.	nc	1.	0.23			
Chromium, Total	7440-47-3	-	-	-		44.	16.			
Mercury (elemental)	7439-97-6	16.9	-	3.13	Csat		0.024		0.0014	
Lead and Compounds	7439-92-1	-	-	400.	nc	52.	9.7			
Butylbenzene, n-	104-51-8	3,910.	-	108.	Csat		0.28		0.0001	
Butylbenzene, sec-	135-98-8	7,820.	-	145.	Csat		0.22		0.	
Cumene	98-82-8	2,660.	-	268.	Csat		0.73		0.0003	
Isopropyltoluene, p-	99-87-6	-	-	162.	Csat		0.17			
Propyl benzene	103-65-1	4,630.	-	264.	Csat		1.5		0.0003	

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Checked By: L. Auner 6/01/2016

Direct-Contact *Exceedance - Hazard - Risk* Calculation Summary from Soil Data

BRRTS # : TB 6	# of Soil-Concentration Entries: 14	Number of Individual Exceedance 0	(Cumulative) Hazard Index 0.0135	(Cumulative) Cancer Risk 1.4E-07
Bottom-Line:		Yes, levels are below direct-contact concern.		

Date of Entry: 5/31/2016. List below only has contaminants with data.
 Date of Worksheet Used: 12/11/2015.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Benzene	71-43-2	111.	1.49	1.49	ca		0.21		0.0019	1.4E-07
Trimethylbenzene, 1,3,5-	108-67-8	782.	-	182.	Csat		0.11		0.0001	
Arsenic, Inorganic	7440-38-2	34.3	0.613	0.613	ca	8.	5.1			
Barium	7440-39-3	15,300.	-	15,300.	nc	364.	43.			
Cadmium (Diet)	7440-43-9	70.	2,110.	70.	nc	1.	0.36			
Chromium, Total	7440-47-3	-	-			44.	15.			
Mercury (elemental)	7439-97-6	16.9	-	3.13	Csat		0.15		0.0089	
Lead and Compounds	7439-92-1	-	-	400.	nc	52.	23.			
Selenium	7782-49-2	391.	-	391.	nc		0.73		0.0019	
Butylbenzene, n-	104-51-8	3,910.	-	108.	Csat		0.84		0.0002	
Butylbenzene, sec-	135-98-8	7,820.	-	145.	Csat		0.42		0.0001	
Cumene	98-82-8	2,660.	-	268.	Csat		0.51		0.0002	
Isopropyltoluene, p-	99-87-6	-	-	162.	Csat		0.19			
Propyl benzene	103-65-1	4,630.	-	264.	Csat		1.3		0.0003	

Created By: M. Kahrilas 5/31/2016
 Checked By: L. Auner 6/01/2016