

**Technical Assistance, Environmental Liability
Clarification or Post-Closure Modification Request**

Form 4400-237 (R 12/18)

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Section 1. Contact and Recipient Information

Requester Information

This is the person requesting technical assistance or a post-closure modification review, that his or her liability be clarified or a specialized agreement and is identified as the requester in Section 7. DNR will address its response letter to this person.

Last Name Melton	First Robert	MI	Organization/ Business Name St. Francis Auto Wreckers, Inc.		
Mailing Address 4043 S. Pennsylvania Avenue			City St. Francis	State WI	ZIP Code 53235
Phone # (include area code) (414) 481-4540	Fax # (include area code)		Email robertgmelton@gmail.com		

The requester listed above: (select all that apply)

- | | |
|---|--|
| <input checked="" type="checkbox"/> Is currently the owner | <input type="checkbox"/> Is considering selling the Property |
| <input type="checkbox"/> Is renting or leasing the Property | <input type="checkbox"/> Is considering acquiring the Property |
| <input type="checkbox"/> Is a lender with a mortgagee interest in the Property | |
| <input type="checkbox"/> Other. Explain the status of the Property with respect to the applicant: | |

Contact Information (to be contacted with questions about this request)

Select if same as requester

Contact Last Name	First	MI	Organization/ Business Name		
Mailing Address			City	State	ZIP Code
Phone # (include area code)	Fax # (include area code)		Email		

Environmental Consultant (if applicable)

Contact Last Name Lennon	First David	MI	Organization/ Business Name Moraine Environmental, Inc.		
Mailing Address 766 Tower Dr			City Fredonia	State WI	ZIP Code 53021
Phone # (include area code) (262) 692-3345	Fax # (include area code)		Email moraine@execpc.com		

Attorney (if applicable)

Contact Last Name Speerschneider	First Timm	MI	Organization/ Business Name Dewitt Ross & Stevens S.C.		
Mailing Address Two East Mifflin Street, Suite 600			City Madison	State WI	ZIP Code 53703
Phone # (include area code) (608) 252-9319	Fax # (include area code)		Email tps@dewitllp.com		

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Section 2. Property Information

Property Name		FID No. (if known)
St Francis Auto Wreckers		241469250
BRRTS No. (if known)	Parcel Identification Number	
02-41-000269	5838991000 & 5838992000	
Street Address	City	State ZIP Code
4043 & 4005 S Pennsylvania Ave	St. Francis	WI 53235
County	Municipality where the Property is located	Property is composed of:
Milwaukee	<input checked="" type="radio"/> City <input type="radio"/> Town <input type="radio"/> Village of St. Francis	<input type="radio"/> Single tax parcel <input checked="" type="radio"/> Multiple tax parcels
		Property Size Acres

1. Is a response needed by a specific date? (e.g., Property closing date) Note: Most requests are completed within 60 days. Please plan accordingly.

No Yes

Date requested by: _____

Reason:

2. Is the "Requester" enrolled as a Voluntary Party in the Voluntary Party Liability Exemption (VPLE) program?

No. **Include the fee that is required for your request in Section 3, 4 or 5.**

Yes. **Do not include a separate fee.** This request will be billed separately through the VPLE Program.

Fill out the information in Section 3, 4 or 5 which corresponds with the type of request:

Section 3. Technical Assistance or Post-Closure Modifications;

Section 4. Liability Clarification; or Section 5. Specialized Agreement.

Section 3. Request for Technical Assistance or Post-Closure Modification

Select the type of technical assistance requested: [Numbers in brackets are for WI DNR Use]

- No Further Action Letter (NFA) (Immediate Actions) - NR 708.09, [183] - **Include a fee of \$350.** Use for a written response to an immediate action after a discharge of a hazardous substance occurs. Generally, these are for a one-time spill event.
- Review of Site Investigation Work Plan - NR 716.09, [135] - **Include a fee of \$700.**
- Review of Site Investigation Report - NR 716.15, [137] - **Include a fee of \$1050.**
- Approval of a Site-Specific Soil Cleanup Standard - NR 720.10 or 12, [67] - **Include a fee of \$1050.**
- Review of a Remedial Action Options Report - NR 722.13, [143] - **Include a fee of \$1050.**
- Review of a Remedial Action Design Report - NR 724.09, [148] - **Include a fee of \$1050.**
- Review of a Remedial Action Documentation Report - NR 724.15, [152] - **Include a fee of \$350**
- Review of a Long-term Monitoring Plan - NR 724.17, [25] - **Include a fee of \$425.**
- Review of an Operation and Maintenance Plan - NR 724.13, [192] - **Include a fee of \$425.**

Other Technical Assistance - s. 292.55, Wis. Stats. [97] (For request to build on an abandoned landfill use Form 4400-226)

- Schedule a Technical Assistance Meeting - **Include a fee of \$700.**
- Hazardous Waste Determination - **Include a fee of \$700.**
- Other Technical Assistance - **Include a fee of \$700.** Explain your request in an attachment.

Post-Closure Modifications - NR 727, [181]

- Post-Closure Modifications: Modification to Property boundaries and/or continuing obligations of a closed site or Property; sites may be on the GIS Registry. This also includes removal of a site or Property from the GIS Registry. **Include a fee of \$1050, and:**
 - Include a fee of \$300 for sites with residual soil contamination; and
 - Include a fee of \$350 for sites with residual groundwater contamination, monitoring wells or for vapor intrusion continuing obligations.

Attach a description of the changes you are proposing, and documentation as to why the changes are needed (if the change to a Property, site or continuing obligation will result in revised maps, maintenance plans or photographs, those documents may be submitted later in the approval process, on a case-by-case basis).

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Skip Sections 4 and 5 if the technical assistance you are requesting is listed above and complete Sections 6 and 7 of this form.

Section 4. Request for Liability Clarification

Select the type of liability clarification requested. Use the available space given or attach information, explanations, or specific questions that you need answered in DNR's reply. Complete Sections 6 and 7 of this form. **[Numbers in brackets are for DNR Use]**

"Lender" liability exemption clarification - s. 292.21, Wis. Stats. [686]

❖ **Include a fee of \$700.**

Provide the following documentation:

- (1) ownership status of the real Property, and/or the personal Property and fixtures;
 - (2) an environmental assessment, in accordance with s. 292.21, Wis. Stats.;
 - (3) the date the environmental assessment was conducted by the lender;
 - (4) the date of the Property acquisition; for foreclosure actions, include a copy of the signed and dated court order confirming the sheriff's sale.
 - (5) documentation showing how the Property was acquired and the steps followed under the appropriate state statutes.
 - (6) a copy of the Property deed with the correct legal description; and,
 - (7) the Lender Liability Exemption Environmental Assessment Tracking Form (Form 4400-196).
- (8) If no sampling was done, please provide reasoning as to why it was **not** conducted. Include this either in the accompanying environmental assessment or as an attachment to this form, and cite language in s. 292.21(1)(c)2., h.-i., Wis. Stats.:
- h. The collection and analysis of representative samples of soil or other materials in the ground that are suspected of being contaminated based on observations made during a visual inspection of the real Property or based on aerial photographs, or other information available to the lender, including stained or discolored soil or other materials in the ground and including soil or materials in the ground in areas with dead or distressed vegetation. The collection and analysis shall identify contaminants in the soil or other materials in the ground and shall quantify concentrations.
 - i. The collection and analysis of representative samples of unknown wastes or potentially hazardous substances found on the real Property and the determination of concentrations of hazardous waste and hazardous substances found in tanks, drums or other containers or in piles or lagoons on the real Property.

"Representative" liability exemption clarification (e.g. trustees, receivers, etc.) - s. 292.21, Wis. Stats. [686]

❖ **Include a fee of \$700.**

Provide the following documentation:

- (1) ownership status of the Property;
- (2) the date of Property acquisition by the representative;
- (3) the means by which the Property was acquired;
- (4) documentation that the representative has no beneficial interest in any entity that owns, possesses, or controls the Property;
- (5) documentation that the representative has not caused any discharge of a hazardous substance on the Property; and
- (6) a copy of the Property deed with the correct legal description.

Clarification of local governmental unit (LGU) liability exemption at sites with: (select all that apply)

- hazardous substances spills - s. 292.11(9)(e), Wis. Stats. [649];
- Perceived environmental contamination - [649];
- hazardous waste - s. 292.24 (2), Wis. Stats. [649]; and/or
- solid waste - s. 292.23 (2), Wis. Stats. [649].

❖ **Include a fee of \$700, a summary of the environmental liability clarification being requested, and the following:**

- (1) clear supporting documentation showing the acquisition method used, and the steps followed under the appropriate state statute(s).
- (2) current and proposed ownership status of the Property;
- (3) date and means by which the Property was acquired by the LGU, where applicable;
- (4) a map and the $\frac{1}{4}$, $\frac{1}{2}$ section location of the Property;
- (5) summary of current uses of the Property;
- (6) intended or potential use(s) of the Property;
- (7) descriptions of other investigations that have taken place on the Property; and
- (8) (for solid waste clarifications) a summary of the license history of the facility.

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Section 4. Request for Liability Clarification (cont.)

Lease liability clarification - s. 292.55, Wis. Stats. [646]

❖ **Include a fee of \$700 for a single Property, or \$1400 for multiple Properties and the information listed below:**

- (1) a copy of the proposed lease;
- (2) the name of the current owner of the Property and the person who will lease the Property;
- (3) a description of the lease holder's association with any persons who have possession, control, or caused a discharge of a hazardous substance on the Property;
- (4) map(s) showing the Property location and any suspected or known sources of contamination detected on the Property;
- (5) a description of the intended use of the Property by the lease holder, with reference to the maps to indicate which areas will be used. Explain how the use will not interfere with any future investigation or cleanup at the Property; and
- (6) all reports or investigations (e.g. Phase I and Phase II Environmental Assessments and/or Site Investigation Reports conducted under s. NR 716, Wis. Adm. Code) that identify areas of the Property where a discharge has occurred.

General or other environmental liability clarification - s. 292.55, Wis. Stats. [682] - Explain your request below.

❖ **Include a fee of \$700 and an adequate summary of relevant environmental work to date.**

No Action Required (NAR) - NR 716.05, [682]

❖ **Include a fee of \$700.**

Use where an environmental discharge has or has not occurred, and applicant wants a DNR determination that no further assessment or clean-up work is required. Usually this is requested after a Phase I and Phase II environmental assessment has been conducted; the assessment reports should be submitted with this form. This is not a closure letter.

Clarify the liability associated with a "closed" Property - s. 292.55, Wis. Stats. [682]

❖ **Include a fee of \$700.**

- Include a copy of any closure documents if a state agency other than DNR approved the closure.

Use this space or attach additional sheets to provide necessary information, explanations or specific questions to be answered by the DNR.

Section 5. Request for a Specialized Agreement

Select the type of agreement needed. Include the appropriate draft agreements and supporting materials. Complete Sections 6 and 7 of this form. More information and model draft agreements are available at: dnr.wi.gov/topic/Brownfields/lgu.html#tabx4.

Tax cancellation agreement - s. 75.105(2)(d), Wis. Stats. [654]

❖ **Include a fee of \$700, and the information listed below:**

- (1) Phase I and II Environmental Site Assessment Reports,
- (2) a copy of the Property deed with the correct legal description

Agreement for assignment of tax foreclosure judgement - s. 75.106, Wis. Stats. [666]

❖ **Include a fee of \$700, and the information listed below:**

- (1) Phase I and II Environmental Site Assessment Reports,
- (2) a copy of the Property deed with the correct legal description.

Negotiated agreement - Enforceable contract for non-emergency remediation - s. 292.11(7)(d) and (e), Wis. Stats. [630]

❖ **Include a fee of \$1400, and the information listed below:**

- (1) a draft schedule for remediation; and,
- (2) the name, mailing address, phone and email for each party to the agreement.

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Section 6. Other Information Submitted

Identify all materials that are included with this request.

Send both a paper copy of the signed form and all reports and supporting materials, and an electronic copy of the form and all reports, including Environmental Site Assessment Reports, and supporting materials on a compact disk.

Include one copy of any document from any state agency files that you want the Department to review as part of this request. The person submitting this request is responsible for contacting other state agencies to obtain appropriate reports or information.

Phase I Environmental Site Assessment Report - Date: _____

Phase II Environmental Site Assessment Report - Date: _____

Legal Description of Property (required for all liability requests and specialized agreements)

Map of the Property (required for all liability requests and specialized agreements)

Analytical results of the following sampled media: Select all that apply and include date of collection.

Groundwater Soil Sediment Other medium - Describe: _____

Date of Collection: _____

A copy of the closure letter and submittal materials

Draft tax cancellation agreement

Draft agreement for assignment of tax foreclosure judgment

Other report(s) or information - Describe: SI Status Update Letter Report dated 9/7/21, attached

For Property with newly identified discharges of hazardous substances only. Has a notification of a discharge of a hazardous substance been sent to the DNR as required by s. NR 706.05(1)(b), Wis. Adm. Code?

Yes - Date (if known): _____
 No

Note: The Notification for Hazardous Substance Discharge (non-emergency) form is available at:
dnr.wi.gov/files/PDF/forms/4400/4400-225.pdf.

Section 7. Certification by the Person who completed this form

I am the person submitting this request (requester)

I prepared this request for: Robert Melton

Requester Name

I certify that I am familiar with the information submitted on this request, and that the information on and included with this request is true, accurate and complete to the best of my knowledge. I also certify I have the legal authority and the applicant's permission to make this request.

Robert Melton
Signature

9/7/21
Date Signed

Senior Project Manager - Moraine Environmental, Inc
Title

(262) 692-3345
Telephone Number (include area code)

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Section 8. DNR Contacts and Addresses for Request Submittals

Send or deliver one paper copy and one electronic copy on a compact disk of the completed request, supporting materials, and fee to the region where the property is located to the address below. Contact a DNR regional brownfields specialist with any questions about this form or a specific situation involving a contaminated property. For electronic document submittal requirements see: <http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf>.

DNR NORTHERN REGION

Attn: RR Program Assistant
Department of Natural Resources
223 E Steinfest Rd Antigo, WI 54409

DNR NORTHEAST REGION

Attn: RR Program Assistant
Department of Natural Resources
2984 Shawano Avenue
Green Bay WI 54313

DNR SOUTH CENTRAL REGION

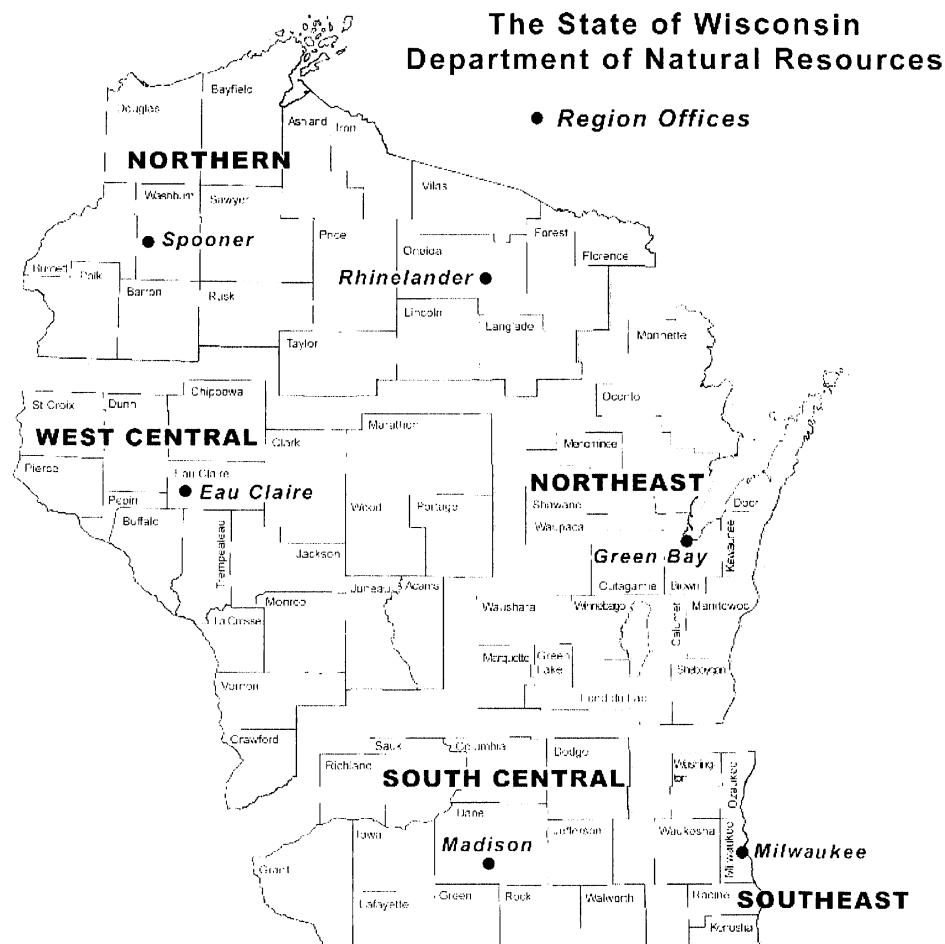
Attn: RR Program Assistant
Department of Natural Resources
3911 Fish Hatchery Road
Fitchburg WI 53711

DNR SOUTHEAST REGION

Attn: RR Program Assistant
Department of Natural Resources
2300 North Martin Luther King Drive
Milwaukee WI 53212

DNR WEST CENTRAL REGION

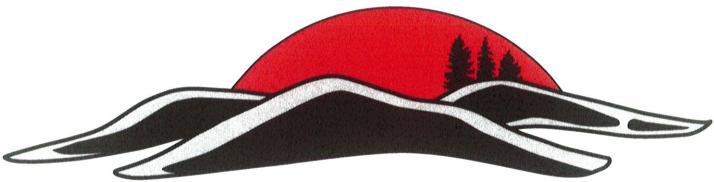
Attn: RR Program Assistant
Department of Natural Resources
1300 Clairemont Ave.
Eau Claire WI 54702



Note. These are the Remediation and Redevelopment Program's designated regions. Other DNR program regional boundaries may be different.

DNR Use Only

Date Received	Date Assigned	BRRTS Activity Code	BRRTS No. (if used)
DNR Reviewer		Comments	
Fee Enclosed? <input type="radio"/> Yes <input type="radio"/> No	Fee Amount \$	Date Additional Information Requested	Date Requested for DNR Response Letter
Date Approved	Final Determination		



September 7, 2021

Project Reference No. 6078

Mr. Paul Grittner
Wisconsin Department of Natural Resources
101 S. Webster St.
P.O. Box 7921
Madison, WI 53707-7921

**RE: Site Investigation Status Update & Request for Technical Assistance
St. Francis Auto Wreckers Property
4043 S. Pennsylvania Ave, St. Francis WI
WDNR BRRTS No. 02-41-000269
WDNR FID No. 241469250**

Dear Mr. Grittner,

Moraine Environmental, Inc. (Moraine) has completed additional investigative activities at the above referenced site in response to the WDNR letter of June 19, 2019. Moraine's previous status report of January 2020 documented the installation of two (2) piezometers (PZ-1 and PZ-2), groundwater sampling at select well locations with VOC and PFAS analysis, and a vapor study including two (2) sub-slab vapor samples in the basement of the 3975 S. Pennsylvania Avenue residence located to the north of E. Norwich Avenue.

This report also documents one additional round of groundwater monitoring completed in February 2020, provides updated tables and figures as requested in the WDNR response letter of June 19, 2019, and includes a general discussion of the project. We have included the 4400-237 and & \$700 fee with this letter report requesting a technical assistance meeting.

GROUNDWATER INVESTIGATION

Moraine personnel completed groundwater monitoring on February 4, 2020. VOC groundwater analysis at MW-6, PZ-1/MW-3B (a MW/Piezo nest) in the north vacant lot and PZ-2 in the south salvage yard was completed. Results at well MW-6 are similar to previous groundwater results with a preventive action limit (PAL) exceedance of benzene and a low-level enforcement standard (ES) exceedance of vinyl chloride (VC). VOC results at MW-3B continue to indicate stability with an ES of tetrachloroethene (PCE); PAL exceedance of trichloroethene (TCE) and ES exceedance of VC. MW-3B is nested with new piezometer PZ-1. Groundwater VOC analysis at PZ-1 resulted in no detections above respective PALs, whereas the first sampling event in September 2019 resulted in a VC detection of 0.43 µg/L, just above its ES. This indicates the vertical limits of groundwater VOC contamination are defined in this area.

PZ-2 (salvage yard) VOC sampling resulted in a low-level PAL exceedance of 1,1-DCE and ES exceedances of cis-1,2-DCE and VC. PCE and TCE were not detected at PZ-2 in either of the first two sampling events.

PFAS analysis was performed using PFAS free sampling protocol on wells MW-6, MW-3B/PZ-1 all located in the north vacant lot. We added MW-2 to the February 2020 PFAS monitoring event to determine whether this site up-gradient well had been impacted by PFAS.

Currently there exist no federal or state Standards for PFAS. The WDNR has proposed ES/PAL levels (Cycle 11) for several of the 36 compounds to become effective Fall 2021 and the remaining PFAS compound standards are proposed to be published Fall 2023. Review of the attached PFAS results table indicates PFOA, PFOS, and PFHxS detections in each of MW-2, MW-6 and PZ-1 at levels above proposed ES's. NEtFOSAA was detected in PZ-1 at levels above proposed ES's, as well. The vertical and horizontal extent of PFAS remains undefined.

TABLE & FIGURE MODIFICATIONS

Table modifications and respective figure updates have been completed per the WDNR letter of June 19, 2019. VOC soil extents were not modified based upon TPH results, as there are no standards for TPH and the provided figures are based upon soil RCLs. With respect to VOC contamination in the swale, analysis at two (2) soil samples, SF-11-15 and SF-12-15 did not result in any detected VOCs above respective standards. Previous investigative probes/borings within the swale were limited in number as well as VOC analysis. However, PAH/SVOC analysis was performed and the PAH/SVOC soil contamination figure does indicate the eastern ½ of the swale has soil standard exceedances. VOC soil extents were not modified along the eastern side of the property as results at HP14 and HP21 indicated no VOC detections.

NORTH VACANT LOT SUMMARY

The vapor intrusion pathway was assessed to include the residence at 3975 S Pennsylvania Avenue which is within 100 feet of the identified CVOC groundwater ES plume on the subject site. Results from the sub-slab study indicated no residential vapor risk screening level (VRSL) exceedances. The potential for vapor intrusion has been investigated and the vapor pathway found to be protective to this nearby residence. No additional on-site or off-site vapor studies are recommended.

VOC groundwater analysis recommendations by the WDNR included installation and monitoring of a piezometer in the northeast corner of the north vacant lot. The piezometer, nested with monitoring well MW-3B, has been monitored two times (September 2019 and February 2020). VOC analytical results at PZ-1 indicated no detections above respective VOC PALs in February 2020, indicating the vertical extent of groundwater contamination is defined. Shallow and deep groundwater VOC limits are defined vertically and horizontally in the north vacant lot and no additional VOC monitoring is recommended.

PFAS groundwater analytical results in the north vacant lot indicate the PFAS plume is undefined horizontally (up and down-gradient), as well as vertically (based upon proposed PFAS ES exceedances identified in PZ-1). Completion of a thorough PFAS investigation to define both the horizontal and vertical extents would require a significant investment of time and labor with well placement necessary in the 794 ROW, for starters, to determine the up-gradient extent.

Then, how deep do one or more piezometers need to be installed at the location of PZ-1 to define the vertical extent? With the uncertainty of migration depth and breadth, additional PFAS studies could take years, and to what end (regardless of Wis. Admin. Code requirements)? Saint Francis water supply is municipal and comes from Lake Michigan, followed by processing at the waterworks facility.

As such, Moraine requests the WDNR approve our request for no additional investigation on the north vacant lot with respect to soil or groundwater contaminants unrelated to PFAS.

DRAINAGE SWALE SUMMARY

Prior to construction of the 794 Highway, the swale which carried stormwater west to east drained storm water from a large area of the City of St. Francis. Two large (30" and 36" each), corrugated metal pipes (CMPs) previously transmitted the storm water at a sharp angle to a deep storm sewer which parallels Pennsylvania Avenue. These out-of-use CMP's need to be bulk headed for proper abandonment. The responsibility for this activity should be borne by the City of Saint Francis as this was their system, however, that discussion still needs to take place. Once the CMPs are bulk headed, the swale can be filled. Filling of the swale will provide the necessary cover to address direct contact soil RCLs present in the swale.

Moraine recommends no additional investigation in the swale and capping with clean fill after the CMPs are properly bulkheaded, to provide protection for direct contact of the contaminants present in the swale. Please be advised that the swale is not accessible due to the slope and growth over time of the large trees and large concrete slabs previously disposed of as construction debris by unknown parties.

SALVAGE YARD SUMMARY

PZ-2 was installed adjacent to soil boring HP15. Analysis of soil samples from HP-15 at 12 feet below ground surface (bgs) resulted in PCE of 1,000 ug/kg, TCE of 6700 ug/kg, and cis-1,2-DCE of 130 ug/kg. Groundwater analysis at PZ-2 has resulted in ES exceedances of cis-1,2-DCE and vinyl chloride with no detections of PCE or TCE reported in February 2020 monitoring. This indicates the PCE/TCE soil source plume has degraded, or naturally attenuated to the breakdown products. As such, Moraine recommends no additional investigation is necessary to assess or discover the extent of PCE/TCE breakdown products.

With respect to capping of the salvage yard, Moraine continues to be of the opinion that the existing fence surrounding the property, appropriate signage and limited worker time in the yard, constitutes a feasible interim action while the property is in use as a salvage yard. The next most logical alternative would be to place a traffic bond cap over the entire surface which is not economically feasible for several reasons. The hundreds of vehicles which currently occupy the land surface would require staged construction (i.e., a portion of the vehicles moved to another area to allow work on the area they occupy, then moved back, repeated several times). This would require multiple contractor mobilizations as the work would have to be completed in increments due to the movement of the vehicles out of, then back to each section. Then, when completed, if the future use of the site changes to something other than auto salvage that would require not only duplication of the effort to cap, but any areas where soil needs to be removed would require all the additional tonnage of any temporary interim cap placed. Moraine recommends no interim cap is necessary while the site operates as a salvage yard, and no additional investigation of the salvage yard.

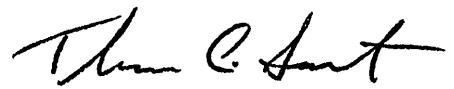
CONCLUSION

Moraine believes a technical assistance meeting would be useful to discuss the three discrete areas, and to discuss how the site fits into the area wide contamination. Also, we request the project be divided into two separate BRRTS numbers: the north vacant lot at 4005 S Pennsylvania Ave., and the salvage yard at 4043 S Pennsylvania Ave.

Sincerely,



David M. Lennon, P.E.
Senior Project Manager
Moraine Environmental, Inc.



Thomas C. Sweet
President
Moraine Environmental, Inc.

Attachments

cc: Timm P. Speerschnieder, Esq., Dewitt Ross & Stevens S.C., 2 E. Mifflin St., Ste 600, Madison, WI

ATTACHMENT A

DATA TABLES

Table A.1.a.
Groundwater Analytical Results - VOC's

St. Francis Auto Wreckers
4043 S. Pennsylvania Avenue, St. Francis, WI 53235

All values expressed in $\mu\text{g/L}$ (micrograms per liter).

ND - Not Detected

< - less than the laboratory method detection limit (MDL)

J - Estimated concentration above the adjusted method detection limit and below the

Italics underlined text - identifies Preventative Action Limit Exceedance.

* - Bromomethane and Chloroethane results were combined in 1991 lab report

** - 1991 lab report listed only 1,2-dichloroethene results. Values placed in cis-1,2-DCE row due to

1951 lab report listed only 1,2 dichloroethylene results. Values lower PAL and ES values compared to trans-1,2-DCE

Note: TW-2 did not yield groundwater during sampling events

NOTE: TW-2 did not yield groundwater during sampling events.

Table A.1.a.
Groundwater Analytical Results - VOC's

St. Francis Auto Wreckers - Proj. 6078
4043 S. Pennsylvania Avenue, St. Francis, WI 53235

Well ID	Permanent Wells										Temp. Well		North, Vacant Lot						NR 140 PAL	NR 140 ES																						
	MW-2					MW-3					SD-5		MW-3B			PZ-1		MW-5					MW-6					NR 140 PAL	NR 140 ES													
Collection Date	7/26/01	10/15/03	7/21/15	3/7/18	7/24/18	10/24/18	1/15/19	7/26/01	10/15/03	7/21/15	3/7/18	7/24/18	10/24/18	1/15/19	7/26/01	10/15/03	7/21/15	3/7/18	7/24/18	10/24/18	1/15/19	3/7/18	7/24/18	10/24/18	1/15/19	9/26/19	2/4/20	9/26/19	2/4/20	7/26/01	10/15/03	7/21/15	3/7/18	7/24/18	10/24/18	1/15/19	3/7/18	7/24/18	10/24/18	1/15/19	9/26/19	2/4/20
Detected Volatile Organic Compounds (µg/L)																																										
1,1,1,2-Tetrachloroethane	ND	<0.18	<0.18	<0.27	<0.27	<0.27	ND	<0.18	<0.27	<0.27	<0.27	<0.27	<0.27	ND	<0.18	<0.18	<0.27	<0.27	<0.27	<0.18	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	Z	<u>70</u>							
1,1,1-Trichloroethane	ND	<0.50	<0.50	<0.24	<0.24	<0.24	ND	<0.50	<0.24	<0.24	<0.24	<0.24	<0.24	ND	<0.50	<0.50	<0.24	<0.24	<0.24	<0.50	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<u>40</u>	<u>200</u>								
1,1,2,2-Tetrachloroethane	ND	<0.25	<0.25	<0.28	<0.28	<0.28	ND	<0.25	<0.28	<0.28	<0.28	<0.28	<0.28	ND	<0.25	<0.25	<0.28	<0.28	<0.28	<0.25	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<u>0.02</u>	<u>0.2</u>								
1,1,2-Trichloroethane	ND	<0.20	<0.20	<0.55	<0.55	<0.55	ND	<0.20	<0.55	<0.55	<0.55	<0.55	<0.55	ND	<0.20	<0.20	<0.55	<0.55	<0.55	<0.20	<0.55	<0.55	<0.55	<0.55	<0.55	<0.55	<0.55	<0.55	<0.55	<0.55	<0.55	<0.55	<u>0.5</u>	<u>5</u>								
1,1-Dichloroethane	0.94	0.53	<0.24	0.55 J	0.41 J	0.29 J	<0.27	2.0	8.0	0.72 J	0.34 J	<0.27	<0.27	0.86 J	<0.27	<1.5	<0.24	<0.24	<0.27	0.39 J	0.45 J	0.90 J	0.36 J	<0.27	1.1	<u>85</u>	<u>850</u>															
1,1-Dichloroethene	ND	<0.41	<0.41	<0.24	<0.24	<0.24	ND	<0.41	<0.24	<0.24	<0.24	<0.24	<0.24	ND	<0.41	<0.41	<0.24	<0.24	<0.24	<0.41	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	Z	<u>7</u>									
1,1-Dichloropropene	ND	<0.44	<0.44	<0.54	<0.54	<0.54	ND	<0.44	<0.54	<0.54	<0.54	<0.54	<0.54	ND	<0.44	<0.44	<0.54	<0.54	<0.54	<0.44	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	NS	NS									
1,2,3-Trichlorobenzene	ND	<2.1	<2.1	<0.63	<0.63	<0.63	ND	<2.1	<0.63	<0.63	<0.63	<0.63	<0.63	ND	<2.1	<2.1	<0.63	<0.63	<0.63	<2.1	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	NS	NS										
1,2,3-Trichloropropane	ND	<0.50	<0.50	<0.59	<0.59	<0.59	ND	<0.50	<0.59	<0.59	<0.59	<0.59	<0.59	ND	<0.50	<0.50	<0.59	<0.59	<0.59	<0.50	<0.59	<0.59	<0.59	<0.59	<0.59	<0.59	<0.59	<0.59	<0.59	<0.59	<0.59	<u>12</u>	<u>60</u>									
1,2,4-Trichlorobenzene	ND	<2.2	<2.2	<0.95	<0.95	<0.95	ND	<2.2	<0.95	<0.95	<0.95	<0.95	<0.95	ND	<2.2	<2.2	<0.95	<0.95	<0.95	<2.2	<0.95	<0.95	<0.95	<0.95	<0.95	<0.95	<0.95	<0.95	<0.95	<0.95	<0.95	<u>14</u>	<u>70</u>									
1,2,4-Trimethylbenzene	0.11	<0.50	<0.50	<0.84	<0.84	<0.84	0.33	<0.50	<0.84	<0.84	<0.84	<0.84	<0.84	350	<0.50	<0.50	<0.84	<0.84	<0.84	<0.50	<0.84	<0.84	<0.84	<0.84	<0.84	<0.84	<0.84	<0.84	<0.84	<0.84	<0.84	NS	NS									
1,2-Dibromo-3-chloropropane	ND	<2.2	<2.2	<1.8	<1.8	<1.8	ND	<2.2	<1.8	<1.8	<1.8	<1.8	<1.8	ND	<2.2	<2.2	<1.8	<1.8	<1.8	<2.2	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<u>0.02</u>	<u>0.2</u>									
1,2-Dibromoethane (EDB)	ND	<0.18	<0.18	<0.83	<0.83	<0.83	ND	<0.18	<0.83	<0.83	<0.83	<0.83	<0.83	ND	<0.18	<0.18	<0.83	<0.83	<0.83	<0.18	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<u>0.005</u>	<u>0.05</u>									
1,2-Dichlorobenzene	<0.2	<0.50	<0.50	<0.71	<0.71	<0.71	0.93	<0.2	<0.50	<0.50	<0.71	<0.71	<0.71	0.93	<0.2	<0.17	<0.17	<0.28	<0.28	<0.28	<0.17	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<u>60</u>	<u>600</u>						
1,2-Dichloroethane	<0.2	<0.17	<0.17	<0.28	<0.28	<0.28	ND	<0.2	<0.23	<0.23	<0.28	<0.28	<0.28																													

Table A.1.b.
Groundwater Analytical Results - PCB's

St. Francis Auto Wreckers
 4043 S Pennsylvania Avenue, St. Francis, WI 53235

Well ID	Road, West of Salvage Yard				Salvage Yard								North, Vacant Lot								NR 140 Preventive Action Limit (PAL)	NR 140 Enforcement Standard (ES)			
	Surface Water		Temporary Wells		Permanent Wells				Temporary Wells		Permanent Wells														
	SF-4	SF-6	BW-13A	SF-9	MW-1	MW-4	MW-7	MW-8	TW-1	TW-3	MW-2	MW-3	MW-5	MW-6											
Sample Collection Date	7/23/91	7/23/91	7/11/91	7/23/91	7/26/01	7/21/15	7/26/01	7/21/15	3/7/18	3/7/18	12/17/15	12/17/15	7/26/01	7/21/15	7/26/01	7/21/15	7/26/01	7/21/15	7/26/01	7/21/15	3/7/18				
Polychlorinated Biphenyls (PCB's) ($\mu\text{g/L}$)	ND	ND	ND	ND	<0.002	<0.28	<0.002	<0.33	<0.24	<0.24	<0.45	1.9	<0.002	<0.30	<0.002	<0.002	<0.31	<0.24	0.003	0.03					
PCB, Total	ND	ND	ND	ND	<0.002	<0.28	<0.003	<0.33	<0.24	<0.24	<0.45	<0.26	<0.003	<0.30	<0.003	<0.15	<0.31	<0.24	NS	NS					
PCB-1016 (Aroclor 1016)	---	ND	ND	ND	<0.003	<0.28	<0.003	<0.33	<0.24	<0.24	<0.45	<0.26	<0.003	<0.30	<0.003	<0.1	<0.31	<0.24	NS	NS					
PCB-1221 (Aroclor 1221)	---	ND	ND	ND	<0.002	<0.28	<0.002	<0.33	<0.24	<0.24	<0.45	<0.26	<0.002	<0.30	<0.002	<0.15	<0.31	<0.24	NS	NS					
PCB-1232 (Aroclor 1232)	---	ND	ND	ND	<0.003	<0.28	<0.003	<0.33	<0.24	<0.24	<0.45	<0.26	<0.003	<0.30	<0.003	<0.15	<0.31	<0.24	NS	NS					
PCB-1242 (Aroclor 1242)	---	ND	ND	ND	<0.003	<0.28	<0.003	<0.33	<0.24	<0.24	<0.45	<0.26	<0.003	<0.30	<0.003	<0.15	<0.31	<0.24	NS	NS					
PCB-1248 (Aroclor 1248)	---	ND	ND	ND	<0.003	<0.28	<0.003	<0.33	<0.24	<0.24	<0.45	0.57	<0.003	<0.30	<0.003	<0.003	<0.31	<0.24	NS	NS					
PCB-1254 (Aroclor 1254)	---	ND	ND	ND	<0.002	<0.28	<0.002	<0.33	<0.24	<0.24	<0.45	0.7	<0.002	<0.30	<0.002	<0.002	<0.31	<0.24	NS	NS					
PCB-1260 (Aroclor 1260)	---	ND	ND	ND	<0.003	<0.28	<0.003	<0.33	<0.24	<0.24	<0.45	0.6	<0.003	<0.30	<0.003	<0.003	<0.31	<0.24	NS	NS					

All values expressed in $\mu\text{g/L}$ (micrograms per liter).

PCB - Polychlorinated Biphenyls

NS - No Standard established for this analyte

ND - Not Detected

< - less than the laboratory method detection limit (MDL)

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

Bold text - identifies NR 140 Enforcement Standard Exceedance

Italics underlined text - identifies Preventative Action Limit Exceedance.

Note: TW-2 did not yield groundwater during sampling events.

Table A.1.c.
Groundwater Analytical Results - PAH's & Detected SVOC's

St. Francis Auto Wreckers

4043 S Pennsylvania Avenue, St. Francis, WI 53235

Well ID	Road, West of Salvage Yard		Salvage Yard							North, Vacant Lot							NR 140 Preventive Action Limit (PAL)	NR 140 Enforcement Standard (ES)	
	Temporary Wells		Permanent Wells					Temp. Well	Permanent Wells				MW-2	MW-3	MW-5	MW-6			
	BW-13A	SF-9	MW-1	MW-4	MW-7	MW-8	TW-3		07/26/01	07/21/15	07/26/01	07/21/15	03/07/18	03/07/18	12/17/15	07/26/01	07/21/15	07/26/01	07/21/15
Polycyclic Aromatic Hydrocarbons (PAH's) & Detected Semi-Volatile Organic Compounds (SVOC's) ($\mu\text{g/L}$)																			
1-Methylnaphthalene	---	---	---	0.31	---	0.0090 J	---	---	0.072	---	0.0066 J	---	---	---	0.037 J	---	NS	NS	
2-Methylnaphthalene	ND	4	---	0.061	---	0.010 J	<1.4	<1.4	0.16	---	0.0090 J	---	---	---	0.15	<1.4	NS	NS	
Acenaphthene	ND	---	ND	0.23	ND	<0.0050	<1.3	<1.3	0.062	ND	0.0056 J	ND	ND	ND	0.08	<1.3	NS	NS	
Acenaphthylene	ND	ND	ND	0.023 J	ND	<0.0049	<1.0	<1.0	0.033 J	ND	<0.0049	ND	ND	ND	0.0086 J	<1.0	NS	NS	
Anthracene	ND	ND	ND	0.042 J	ND	0.0084 J	<1.7	<1.7	0.11	ND	0.029 J	ND	ND	ND	0.047 J	<1.7	600	3,000	
Benzo(a)anthracene	ND	ND	ND	<0.0051	ND	<0.0051	<0.50	<0.50	0.31	ND	<0.0051	ND	ND	ND	<0.0051	<0.50	NS	NS	
Benzo(a)pyrene	ND	ND	ND	<0.0044	ND	<0.0044	<1.8	<1.8	0.28	ND	<0.0044	ND	ND	ND	<0.0044	<1.8	0.02	0.2	
Benzo(b)fluoranthene	ND	ND	ND	<0.0053	ND	<0.0053	<0.62	<0.62	0.37	ND	<0.0053	ND	ND	ND	<0.0053	<0.62	0.02	0.2	
Benzo(g,h,i)perylene	ND	ND	ND	<0.0035	ND	<0.0035	<0.76	<0.76	0.2	ND	<0.0035	ND	ND	ND	<0.0035	<0.76	NS	NS	
Benzo(k)fluoranthene	ND	ND	ND	<0.0056	ND	<0.0056	<0.95	<0.95	0.14	ND	<0.0056	ND	ND	ND	<0.0056	<0.95	NS	NS	
Chrysene	ND	ND	ND	<u>0.035 J</u>	ND	<u>0.032 J</u>	<1.6	<1.6	0.35	ND	<u>0.032 J</u>	ND	ND	ND	<u>0.037 J</u>	<1.6	0.02	0.2	
Dibenz(a,h)anthracene	ND	ND	ND	<0.0056	ND	<0.0056	<1.2	<1.2	0.042 J	ND	<0.0056	ND	ND	ND	<0.0056	<1.2	NS	NS	
Fluoranthene	ND	ND	ND	0.052	ND	<0.0094	<0.53	<0.53	0.62	ND	<0.0094	ND	ND	ND	0.050 J	<0.53	<u>80</u>	400	
Fluorene	ND	ND	ND	0.18	ND	<0.0040	<0.71	<0.71	0.063	ND	0.0040 J	ND	ND	ND	0.044 J	<0.71	<u>80</u>	400	
Indeno(1,2,3-cd)pyrene	ND	ND	ND	<0.0036	ND	<0.0036	<1.4	<1.4	0.16	ND	<0.0036	ND	ND	ND	<0.0036	<1.4	NS	NS	
Naphthalene	ND	<u>32</u>	<u>13</u>	0.84	<0.48	0.0098 J	<1.8	<1.8	0.087	<0.48	0.0076 J	<0.48	ND	ND	<u>25</u>	0.16	<1.8	<u>10</u>	100
Phenanthrene	ND	ND	ND	0.027 J	ND	0.010 J	<1.7	<1.7	0.3	ND	0.012 J	ND	ND	ND	<0.0077	<1.7	NS	NS	
Pyrene	ND	ND	ND	0.039 J	ND	<0.0077	<1.3	<1.3	0.53	ND	<0.0077	ND	ND	ND	0.059	<1.3	<u>50</u>	250	
1,2-Dichlorobenzene	ND	ND	<0.38	---	<0.19	---	<1.8	<1.8	---	<0.38	---	0.46	ND	<4.8	---	<1.8	60	600	
2-Methylphenol	ND	ND	34	---	<0.45	---	<0.82	<0.82	---	<0.45	---	<0.45	ND	<11	---	<0.82	NS	NS	
3&4-Methylphenol	ND	ND	29	---	<0.38	---	<1.5	<1.5	---	<0.34	---	<0.38	ND	<9.5	---	<1.5	NS	NS	
Acetophenone	ND	ND	2.7	---	<0.5	---	---	---	---	<0.5	---	<0.5	ND	<13	---	---	NS	NS	
Bis(2-ethylhexyl)phthalate	24.2	54.9	<2.8	---	<u>1.4</u>	---	<0.65	<u>0.68 J</u>	---	<u>1.6</u>	---	<u>1.9</u>	ND	<35	---	<0.65	<u>0.6</u>	6	
Di-n-butylphthalate	ND	ND	<1.4	---	<0.68	---	<2.4	<2.4	---	<0.68	---	1.2	ND	<17	---	<2.4	<u>100</u>	1000	
Di-n-octylphthalate	ND	ND	<0.64	---	<0.32	---	<1.8	<1.8	---	<0.32	---	0.69	ND	<8	---	<1.8	NS	NS	
Diethylphthalate	ND	13.3	<0.1	---	<0.51	---	<1.0	<1.0	---	<0.51	---	0.52	ND	<13	---	<1.0	NS	NS	
N-Nitroso-di-n-propylamine	ND	ND	1.3	---	<0.48	---	<0.92	<0.92	---	<0.48	---	<0.48	ND	<12	---	<0.92	NS	NS	
Naphthalene	ND	<u>32</u>	<u>13</u>	0.84	<0.48	0.0098 J	<1.8	<1.8	0.087	<0.48	0.0076 J	<0.48	ND	<u>25</u>	0.16	<1.8	<u>10</u>	100	
Phenol	ND	ND	3	---	<0.23	---	<0.57	<0.57	---	<0.23	---	<0.23	ND	<5.8	---	<0.57	<u>400</u>	2000	

Not Located, Destroyed

All values expressed in $\mu\text{g/L}$ (micrograms per liter).

PAH - Polycyclic Aromatic Hydrocarbons

SVOC - Semi-Volatile Organic Compounds

--- - sample not analyzed for this parameter

NS - No Standard established for this analyte

ND - Not Detected

< - less than the laboratory method detection limit (MDL)

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

Bold text - identifies NR 140 Enforcement Standard Exceedance

Italics underlined text - identifies Preventative Action Limit Exceedance.

Note: TW-2 did not yield groundwater during sampling events.

An attempt to sample TW-1 for PAHs was made however slow recharge did not yield enough sample for analysis.

Table A.1.d.
Groundwater Analytical Results - Metals

St. Francis Auto Wreckers
 4043 S Pennsylvania Avenue, St. Francis, WI 53235

Well ID	Road, West of Salvage Yard					Salvage Yard					North, Vacant Lot					NR 140 Preventive Action Limit (PAL)	NR 140 Enforcement Standard (ES)			
	Surface Water	Temporary Wells				Permanent Wells		Temporary Wells			Permanent Wells									
		SF-4	BW-13	SF-6	BW-13A	SF-9	MW-1	MW-4	TW-1	TW-3	MW-2	MW-3	MW-5							
Collection Date	7/23/91	1990	7/23/91	1990	7/11/91	7/23/91	7/26/01	7/21/15	7/26/01	7/21/15	12/17/15	12/17/15	7/26/01	7/21/15	7/26/01	7/21/15	Not Located, Destroyed	Not Located, Destroyed		
Dissolved Resource Conservation & Recovery Act (RCRA) Metals (ug/L)																				
Arsenic	ND	---	<u>2.2</u>	---	ND	<u>2.7</u>	<1.3	<7.2	<1.3	<7.2	<6.8	20.5	13.5	<7.2	<u>4.4</u>	4.4	<7.2	<u>1</u>	10	
Antimony	---	---	---	---	---	---	<3.4	---	<3.4	---	---	---	<3.4	---	<3.4	<3.4	---	<u>1.2</u>	6	
Beryllium	---	---	---	---	---	---	<u>0.68</u>	---	<u>0.62</u>	---	---	---	<u>0.76</u>	---	<u>0.64</u>	<u>0.79</u>	---	<u>0.4</u>	4	
Barium	65	84	147	248	180	406	---	<u>1320</u>	---	134	82.5	493	---	117	---	---	125	<u>400</u>	2000	
Cadmium	ND	---	ND	---	ND	ND	<u>0.84</u>	<0.60	<0.42	<0.60	<1.0	5.9	0.44	<0.60	<0.42	<0.42	<0.60	<u>0.5</u>	5	
Total Chromium	5	---	ND	---	ND	<u>13</u>	1.4	2.5J	<0.61	<2.1	9.8	62.8	<0.61	<2.1	1.2	0.69	<2.1	<u>10</u>	100	
Lead	ND	<u>3.4</u>	ND	ND	ND	ND	<1.4	<3.0	<1.4	<3.0	<u>8.5</u>	1050	<u>2.6</u>	<3.0	<1.4	<u>2</u>	<3.0	<u>1.5</u>	15	
Copper	---	---	---	---	---	---	<2.9	---	<2.9	---	---	---	4.8	---	<2.9	<2.9	---	<u>130</u>	1300	
Nickel	---	---	---	---	---	---	10.2	---	6.7	---	---	---	16.7	---	9.1	10.3	---	<u>20</u>	100	
Selenium	ND	---	ND	---	4.2	ND	<5.2	<6.7	<5.2	<6.7	<u>10.2J</u>	<6.8	<5.2	<6.7	<5.2	<5.2	<6.7	<u>10</u>	50	
Silver	ND	---	ND	---	ND	ND	<0.62	<2.7	<0.62	<2.7	<3.2	<3.2	<0.62	<2.7	<0.62	<0.62	<2.7	<u>10</u>	50	
Thallium	---	---	---	---	---	---	<5.4	---	<5.4	---	---	---	<5.4	---	<5.4	<5.4	---	<u>0.4</u>	2	
Zinc	---	---	---	---	---	---	<u>22.7</u>	---	16.3	---	---	---	34.4	---	13.2	7.2	---	<u>2.5</u>	5	
Mercury	<u>0.53</u>	---	<u>1.1</u>	---	<u>0.68</u>	<u>0.9</u>	<0.14	<0.10	<0.14	<0.10	<0.10	<0.10	<u>1.4</u>	<0.14	<0.10	<0.14	<0.14	<0.10	<u>0.2</u>	2

All values expressed in µg/L (micrograms per liter).

RCRA - Resource Conservation & Recovery Act

--- sample not analyzed for this parameter

ND - Not Detected

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

< - less than the laboratory method detection limit (MDL)

Bold text - identifies NR 140 Enforcement Standard Exceedance

Italics underlined text - identifies Preventative Action Limit Exceedance.

Note: TW-2 did not yield groundwater during sampling events.

Table A.1.e.
Groundwater Analytical Results - PFAS

St. Francis Auto Wreckers
 4043 S. Pennsylvania Avenue, St. Francis, WI 53235

Well ID	North, Vacant Lot								Proposed WDNR Standards (Cycle 11)	
	Collection Date	Nested Wells MW-3B & PZ-1				MW-6		Field Blank		
		MW-2	MW-3B	PZ-1	MW-6	9/26/19	2/4/20	9/26/19	2/4/20	
PFAS Compounds (ng/L)										
Perfluorobutanoic Acid (PFBa)	61	<0.29	27	120	93	99	75	<0.31	0.49 J	**
Perfluoropentanoic Acid (PFPeA)	65	81	35	<0.42	62	<0.42	73	<0.43	<0.47	**
Perfluorohexanoic Acid (PFHxA)	73	71	37	78	71	81	82	<0.51	<0.55	**
Perfluoroheptanoic Acid (PFHpA)	51	56	44	50	57	57	63	<0.22	<0.24	**
Perfluoroctanoic Acid (PFOA)	640	62	49	280	290	200	250	<0.75	<0.81	2 *
Perfluorononanoic Acid (PFNA)	<i>4.5</i>	<0.22	0.52 J	<0.23	1.1 J	2.8	2.3	<0.24	<0.26	3
Perfluorodecanoic Acid (PFDA)	0.38 J	<0.26	<0.27	<0.27	<0.26	<0.26	<2.6	<0.27	<0.30	30
Perfluoroundecanoic Acid (PFUnA)	<0.91	<0.91	<0.95	<0.95	<0.91	<0.94	<0.93	<0.97	<1.0	300
Perfluorododecanoic Acid (PFDoA)	<0.45	<0.45	<0.48	<0.48	<0.46	<0.47	<0.46	<0.49	<0.52	50
Perfluorotridecanoic Acid (PFTriA)	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.2	<1.2	**
Perfluorotetradecanoic Acid (PFTeA)	<0.24	0.33 J	<0.25	0.40 J	<0.24	<0.25	<0.24	<0.26	<0.28	1000
Perfluoro-n-hexadecanoic Acid (PFHxDA)	<0.73	<0.73	<0.77	<0.77	<0.74	<0.76	<0.75	<0.79	<0.85	**
Perfluorobutanesulfonic Acid (PBS)	5.8	<0.16	2.9	<0.17	27	<0.17	24	<0.18	<0.19	45000
Perfluoro-n-octadecanoic Acid (PFODA)	<0.38	<0.38	<0.40	<0.40	<0.38	<0.39	<0.39	<0.41	<0.44	40000
Perfluoropentanesulfonic Acid (PFPeS)	11	<0.25	1.6 J	21	35	16	38	<0.27	<0.29	**
Perfluorohexanesulfonic Acid (PFHxS)	44	26	7.4	57	63	96	85	0.23 J	0.34 J	40
Perfluoroheptanesulfonic Acid (PFHps)	65	<0.16	<0.16	8.3	11	7.8	12	<0.17	<0.18	**
Perfluoroctanesulfonic Acid (PFOS)	300	19	22	330	360	210	260	<0.48	<0.51	2 *
Perfluorononanesulfonic Acid (PFNS)	<0.13	<0.13	<0.14	<0.14	<0.13	<0.14	<0.13	<0.14	<0.15	**
Perfluorodecanesulfonic Acid (PFDS)	<0.26	<0.26	<0.28	<0.28	<0.27	<0.27	<0.27	<0.28	<0.30	**
Perfluoroctanesulfonamide (FOSA)	1.0 J	0.45 J	0.82 J	0.44 J	0.46 J	<0.30	0.50 J	<0.31	0.47 J	2 *
N-methylperfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	<2.6	<2.6	<2.7	<2.7	<2.6	<2.6	<2.6	<2.7	<3.0	**
N-ethylperfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	<i>7.3 J</i>	<1.6	<1.6	96	110	<i>7.2 J</i>	<16	<1.7	<1.8	2 *
4:2 FTS	<4.3	<4.3	<45	<4.5	<43	<4.4	<44	<4.6	<5.0	**
6:2 FTS	<1.6	<1.6	<17	<1.7	<17	<1.7	<17	<1.8	<1.9	**
8:2 FTS	<1.6	<1.6	<17	<1.7	<17	<1.7	<17	<1.8	<1.9	**
NETFOSA	<0.72	<0.72	<0.75	<0.75	<0.72	<0.74	<0.73	<0.77	<0.83	2 *
NMeFOSA	<0.35	<0.35	<0.37	<0.37	<0.36	<0.37	<0.36	<0.38	<0.41	**
NMeFOSE	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.3	**
NETFOSE	<0.70	<0.70	<0.74	<0.74	<0.71	<0.73	<0.72	<0.75	<0.81	2 *
Perfluorododecanesulfonic Acid (PFDoS)	<0.37	<0.37	<0.39	<0.398	<0.37	<0.38	<0.38	<0.40	<0.43	**
F-53B Major	<0.20	<0.20	<0.21	<0.21	<0.20	<0.20	<0.20	<0.21	<0.23	**
HFPO-DA (GenX)	<1.2	<1.2	<1.3	<1.3	<1.2	<1.3	<1.3	<1.3	<1.4	30
F-53B Minor	<0.26	<0.26	<0.28	<0.28	<0.27	<0.27	<0.27	<0.28	<0.30	**
10:2 FTS	<0.16	<0.16	<1.6	<0.16	<1.6	<0.16	<1.6	<0.17	<0.18	**
DONA	<0.15	<0.15	<0.16	<0.16	<0.15	<0.15	<0.15	<0.16	<0.17	300
										3000

* Wisconsin Department of Health Services (DHS) proposed standards for PFOA & PFOS in Cycle 10 would become published and effective Fall 2021

** DHS has not yet determined proposed standards for the remaining 34 (Cycle 11) PFAS compounds in this table, but would become effective Fall 2023

All values expressed in ng/L (nanograms per liter).

PAL - Preventive Action Limit

ES - Enforcement Standard

--- sample not analyzed for this parameter

NS - No Standard established for this analyte

ND - Not Detected

< - less than the laboratory method detection limit (MDL)

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

Bold underlined text - identifies Proposed NR 140 Enforcement Standard Exceedance

Italics underlined text - identifies Proposed NR 140 Preventative Action Limit Exceedance.

Table A.2.a.
Soil Analytical Results Table - VOC

Table A.2.b.
Soil Analytical Results Table - PCB's
St. Francis Auto Wreckers - Proj. 6078
4043 S. Pennsylvania Avenue, St. Francis, WI 53235

Boring ID	Depth (ft-BGS)	Saturated/Unsaturated (S/U)	Collection Date	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260	TPH Gasoline	TPH Diesel
A1	0-0.5	U	5/16/91	ND	ND	ND	ND	ND	ND	ND	<145	<145
	0.5-1	U	5/16/91	ND	ND	ND	ND	ND	ND	ND	---	---
SF13	0-0.5	U	10/14/03	---	---	---	---	---	---	---	---	---
HP14	6	U	8/9/99	0.49	ND	ND	ND	ND	0.23	0.26	---	---
GP-1	0-1	U	7/17/15	0.938	<0.0286	<0.0286	<0.0286	<0.0286	0.0837	0.298	0.556	---
	13	U	7/17/15	0.222	<0.0277	<0.0277	<0.0277	<0.0277	<0.0277	0.072	0.15	---
A2	0-0.5	U	5/16/91	0.976	ND	ND	ND	ND	0.976	<145	<145	---
	0.5-1	U	5/16/91	0.096	ND	ND	ND	ND	ND	0.096	---	---
HP15	2	U	8/9/99	3.7	ND	ND	ND	ND	3.7	ND	---	---
SF08	3-4	U	7/18/01	ND	<0.044	<0.044	<0.033	<0.056	<0.033	<0.022	<0.044	---
MW-8	0-2.5	U	3/1/18	11.3	<1.48	<1.48	<1.48	<1.48	<1.48	11.3	---	---
	15-17.5	U	3/1/18	2.66	<0.145	<0.145	<0.145	<0.145	<0.145	2.66	---	---
A3	0-0.5	U	5/16/91	ND	ND	ND	ND	ND	ND	<145	<145	---
	0.5-1	U	5/16/91	ND	ND	ND	ND	ND	ND	ND	---	---
HP16	6	U	8/9/99	ND	ND	ND	ND	ND	ND	ND	---	---
GP-2	0-1	U	7/17/15	0.181	<0.0292	<0.0292	<0.0292	<0.0292	0.0559 J	0.126	---	---
	9-10	U	7/17/15	4.76	<0.126	<0.126	<0.126	0.762	<0.126	0.961	3.04	---
A4	0-0.5	U	5/16/91	ND	ND	ND	ND	ND	ND	<57	<57	---
	0.5-1	U	5/16/91	ND	ND	ND	ND	ND	ND	ND	---	---
B1	0-0.5	U	5/16/91	6.06	ND	ND	ND	ND	4.37	ND	1.69	<365
	0.5-1	U	5/16/91	ND	ND	ND	ND	ND	ND	ND	---	---
GP-3	0-1	U	7/17/15	4.31	<0.116	<0.116	<0.116	<0.116	1.36	1.7	1.25	---
	15-16	U	7/17/15	<0.282	<0.282	<0.282	<0.282	<0.282	<0.282	<0.282	---	---
B2	0-0.5	U	5/16/91	ND	ND	ND	ND	ND	ND	ND	<365	<365
	0.5-1	U	5/16/91	ND	ND	ND	ND	ND	ND	ND	---	---
SF-15	0-0.5	U	10/14/03	---	---	---	---	---	---	1.100	---	---
SF-15-15	0-1	U	7/17/15	1.82	<0.0555	<0.0555	<0.0555	<0.0555	0.509	1.32	---	---
	3-4	U	7/17/15	<0.291	<0.291	<0.291	<0.291	<0.291	<0.291	<0.291	---	---
B3	0-0.5	U	5/16/91	30.67	ND	ND	ND	ND	27.8	ND	2.87	<145
	0.5-1	U	5/16/91	ND	ND	ND	ND	ND	ND	ND	---	---
BC4	0-0.5	U	5/15/91	6.76	ND	ND	ND	ND	4.66	ND	2.1	<897
	0.5-1	U	5/15/91	4.04	ND	ND	ND	ND	4.04	ND	ND	---
C1	0-0.5	U	5/15/91	ND	ND	ND	ND	ND	ND	ND	3410	<428
	0.5-1	U	5/15/91	50.7	ND	ND	ND	ND	50.7	ND	ND	---
C2	0-0.5	U	5/15/91	7.98	ND	ND	ND	ND	6.75	ND	1.23	641
	0.5-1	U	5/15/91	ND	ND	ND	ND	ND	ND	ND	---	3230
C3	0-0.5	U	5/15/91	52.67	ND	ND	ND	ND	49.9	ND	2.77	<787
	0.5-1	U	5/15/91	1.68	ND	ND	ND	ND	1.68	ND	ND	4453
HP-13	2	U	8/9/99	8.3	ND	ND	ND	ND	8.3	ND	ND	---
SF09	4-4.5	U	7/18/01	ND	<0.050	<0.050	<0.037	<0.062	<0.037	<0.025	<0.050	---
CD4	0-0.5	U	5/15/91	10.18	ND	ND	ND	ND	8.44	ND	1.74	<362
	0.5-1	U	5/15/91	0.585	ND	ND	ND	ND	0.585	ND	ND	---
D1	0-0.5	U	5/15/91	ND	ND	ND	ND	ND	ND	<389	<389	---
	0.5-1	U	5/15/91	51.76	ND	ND	ND	ND	48.4	ND	3.36	---
D2	0-0.5	U	5/15/91	16.91	ND	ND	ND	ND	15.8	ND	1.11	<5310
	0.5-1	U	5/15/91	32.51	ND	ND	ND	ND	30.4	ND	2.11	67300
HP19	8	U	8/9/99	1.1	ND	ND	ND	ND	1.1	ND	ND	---
D3	0-0.5	U	5/15/91	12.6	ND	ND	ND	ND	12.6	ND	ND	1260
HP20	4	U	8/9/99	0.82	ND	ND	ND	ND	0.36	0.46	---	5800
SF-14	0-0.5	U	10/14/03	---	---	---	---	---	270J	---	---	---
SF-14-15	0-1	U	7/17/15	0.762	<0.0269	<0.0269	<0.0269	0.312	<0.0269	0.214	0.235	---
	3-4	U	7/17/15	3.966	<0.110	<0.110	<0.110	1.84	1.59	0.536	---	---
MW-7	0-2.5	U	3/1/18	0.732	<0.0297	<0.0297	<0.0297	0.546 J	0.284	0.392	---	---
	12.5-15	U	3/1/18	<28.3	<28.3	<28.3	<28.3	<28.3	<28.3	<28.3	<28.3	---
HP21	2	U	8/9/99	ND	ND	ND	ND	ND	ND	ND	ND	---
HP22	4	U	8/9/99	ND	ND	ND	ND	ND	ND	ND	ND	---
HP23	2	U	8/9/99	0.41	ND	ND	ND	ND	0.23	0.18	---	---
Groundwater Pathway RCL												
Non-Industrial Direct Contact Pathway RCL												
25* 4.11 0.213 0.19 0.235 0.236 0.239 0.243 NS NS NS												
Industrial Direct Contact Pathway RCL												
25* 28 0.883 0.792 0.972 0.975 0.988 1 NS NS NS												

Boring ID	Depth (ft-BGS)	Saturated/Unsaturated (S/U)	Collection Date	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260	TPH Gasoline	TPH Diesel
HB01	0-1	U	8/9/99	5.4	ND	ND	ND	ND	ND	5.4	ND	---
SF-12	0-0.5	U	10/14/03	---	---	---	---	---	---	370	---	---
SF-12-15	0-1	U	7/21/15	1.67	<0.0600	<0.0600	<0.0600	<0.0600	0.0800 J	0.428	1.16	---
SB05	3-4	U	7/18/01	ND	<3.3	<3.3	<2.5	<4.2	<0.050	<0.033	<0.067	---
SF-11	0-0.5	U	10/14/03	---	---	---	---	---	---	1.300	---	---
SF-11-15	0-1	U	7/21/15	0.0356 J	<0.0289	<0.0289	<0.0289	<0.0289	0.0356 J	<0.0289	---	---
HB02	0-1	U	8/9/99	0.35	ND	ND	ND	ND	ND	0.35	---	---
HP01	2	U	8/9/99	0.021	ND	ND	ND	ND	ND	0.021	---	---
HP02	2	U	8/9/99	ND	ND	ND	ND	ND	ND	ND	ND	---
SB01	0-0.5	U	7/18/01	27	<0.051	<0.051	<0.038	<0.063	<0.038	27	<2.5	---
HP05	2	U	8/9/99	1.6	ND	ND	ND	ND	ND	1.6	ND	---
SF06	0-0.5	U	10/14/03	---	---	---	---	---	---	---	---	---
HP06	2	U	8/9/99	0.3	ND	ND	ND	ND	ND	0.3	ND	---
SF07	0-0.5	U	10/14/03	---	---	---	---	---	---	---	---	---
SB04	0-0.5	U	7/18/01	ND	<0.043	<0.043	<0.033	<0.054	<0.033	<0.022	<0.043	---
HP07	2	U	8/9/99	1.82	ND	<0.041	<0.041	<0.031	<0.051	<0.031	<0.020	<0.041
SF09	0-0.5	U	10/14/03	---	---	---	---	---	---	---	---	---
HP09	2	U	8/9/99	0.26	ND	ND	ND	ND	ND	0.26	ND	---
MW-6	0-2.5	U	3/1/18	1.51	<0.0277	<0.0277	<0.0277	<0.0277	0.527	0.781	0.203	---
	15-17.5	U	3/1/18	0.030 J	<0.0288	<0.0288	<0.0288	<0.0288	0.030 J	<0.0288	---	---
HP12	2	U	8/9/99	0.1	ND	ND	ND	ND	ND	0.1	ND	---
SF08	0-0.5	U	10/14/03	1.240	---	---	---	---	---	350	890	---
SS-1	3-4	U	10/24/07	---	ND	ND	ND	ND	63	ND	71	47
SS-2	3-4	U	10/24/07	---	ND	ND	ND	ND	0.26	ND	0.27	0.064
SS-3	3-4	U	10/24/07	---	ND	ND	ND	ND	ND	0.079	0.058	---
E-23	0-5	U	2/12/09	1.4	---	---	---	---	---	---	---	---
E-25	0-5	U	2/12/09	ND	---	---	---	---	---	---	---	---
E-27	0-5	U	2/12/09	0.83	---	---	---	---	---	---	---	---
E-29	0-5	U	2/12/09	1.7	---	---	---	---</				

Table A.2.d.
Soil Analytical Results Table - Metals

St. Francis Auto Wreckers - Proj. 6078
4043 S. Pennsylvania Avenue, St. Francis, WI 53235

Boring ID	Depth (ft-BGS)	Saturated/Unsaturated (S/U)	Collection Date	RCRA Metals (mg/kg)												Toxicity Characteristics (mg/L)								
				Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Manganese	Nickel	Selenium	Silver	Zinc	Mercury	TCLP Arsenic	TCLP Barium	TCLP Cadmium	TCLP Chromium	TCLP Lead	TCLP Mercury	TCLP Silver	
Auto Salvage Yard Portion of Property	SF13	0-0.5	U	10/14/03	<18	501	29.7	<62.1	368J	72400	2310	<1914	<53.1	-	<12.5	1650	<0.6	-	-	-	-	-	-	
	SB07	4-5	U	7/18/01	---	---	---	94.5	-	-	1710	-	-	---	-	---	---	---	0.062	10.1	---	---		
	HP14	6	U	8/9/99	17.3	200	3.9	137	-	-	384	-	-	ND	1.05	-	0.214	---	---	---	---	---	---	
	GP-1	0-1	U	7/17/15	7.2	253	16.5	29.2	-	-	1010	-	-	<0.84	3.1	-	0.089	---	---	---	---	---	---	
	13	U	7/17/15	5.2	96.2	3.1	22.1	-	-	162	-	-	<0.73	0.84J	-	0.073	---	---	---	---	---	---		
	MW-8	0-2.5	U	3/1/18	6.8	90.7	2.2	21.1	-	-	103	-	-	<1.2	1.0J	-	0.041	---	---	---	---	---	---	
	15-17.5	U	3/1/18	8.2	129	2.6	21.1	-	-	115	-	-	<1.2	0.42 J	-	0.088	---	---	---	---	---	---		
	GP-2	0-1	U	7/17/15	13.2 J	484	19.8	20.4	-	-	242	-	-	<16.1	<5.8	-	0.13	---	---	---	---	---	---	
	9-10	U	7/17/15	57.4	122	15.9	17.5	-	-	464	-	-	1.3 J	<0.33	-	0.062	---	---	---	---	---	---		
	B13C-S1	2.5-4	U	1990	---	---	---	---	---	---	---	---	---	---	---	---	ND	1.14	0.110	---	0.416	---	0.007	
	HP17	8	U	8/9/99	6.6	49	ND	14.3	-	-	12.9	-	-	ND	ND	-	ND	---	---	---	---	---	---	
	SF-15-15	0-1	U	7/17/15	14.6 J	627	38.2	963	-	-	1570	-	-	<7.4	16.6	-	0.23	---	---	---	---	---	---	
	3-4	U	7/17/15	5.4	41.4	0.34 J	13.6	-	-	77.9	-	-	<0.80	<0.29	-	0.042	---	---	---	---	---	---		
	SF15	0-0.5	U	10/14/03	<18	475	49.0	<62.1	1,890J	62,100	1,460	7,870J	296	-	25.2	<324	<0.6	---	---	---	---	---	---	
	HP18	8	U	8/9/99	4.86	49	ND	19.5	-	-	14.8	-	-	ND	ND	-	0.0441	---	---	---	---	---	---	
	GP-3	0-1	U	7/17/15	7.9 J	160	8.9	11.1 J	-	-	1000	-	-	<17.4	<6.3	-	0.12	---	---	---	---	---	---	
	15-16	U	7/17/15	5.3	39.3	0.23 J	14.1	-	-	11.2	-	-	<0.77	<0.28	-	0.010	---	---	---	---	---	---		
	SF-14-15	0-1	U	7/17/15	<6.3	223	37.4	96	-	-	530	-	-	<0.76	6.3	-	0.58	---	---	---	---	---	---	
	3-4	U	7/17/15	4.3	92.3	0.26 J	23	-	-	27.9	-	-	<0.84	<0.30	-	0.051	---	---	---	---	---	---		
	SF14	0-0.5	U	10/14/03	<18	254	22.1	65.9J	1,360J	82,500	1,060	<1914	168	-	<12.5	2,230	<0.6	---	---	---	---	---	---	
	HP20	4	U	8/9/99	4.93	16	ND	46.7	-	-	13.3	-	-	ND	ND	-	ND	---	---	---	---	---	---	
	MW-7	0-2.5	U	3/1/18	8.7	309	23	37.5	-	-	473	-	-	3.2 J	1.7	-	7.8	---	---	---	---	---	---	
	12.5-15	U	3/1/18	<1.2	8.9	0.41 J	4.4	-	-	8.7	-	-	<1.2	<0.38	-	<0.012	---	---	---	---	---	---		
	HP21	2	U	8/9/99	5.6	23	ND	11.4	-	-	16.8	-	-	ND	ND	-	ND	---	---	---	---	---		
	HP22	4	U	8/9/99	9.6	25	ND	11.4	-	-	17.8	-	-	ND	ND	-	0.0277	---	---	---	---	---		
To West in Current Road	BW13A-S2	5-6.5	U	6/12/1905	---	---	---	---	---	---	---	---	---	---	---	---	0.057	0.391	0.009	---	ND	---	0.004	
	B-12/HA-12	0-6.5	U	1990	---	---	---	---	---	---	---	---	---	---	---	---	0.099	0.016	0.013	---	---	---		
	SF6S1	2.5-4	U	7/23/91	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.258	ND	0.016	ND	ND	0.01	
	SF6S2	5-6.5	U	7/23/91	---	---	---	---	---	---	---	---	---	---	---	---	0.209	0.783	ND	0.016	0.144	ND	ND	0.276
	SF8S1	2.5-4	U	7/23/91	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.586	ND	ND	ND	ND	0.184	
	SF9AS2	5-6.5	U	7/23/91	---	---	---	---	---	---	---	---	---	---	---	---	0.486	ND	ND	ND	ND	ND	ND	
	SF9S2	5-6.5	U	7/23/91	---	---	---	---	---	---	---	---	---	---	---	---	0.262	1.45	0.448	0.022	9.86	0.003	ND	
	SF9S2A	5-6.5	U	7/23/91	---	---	---	---	---	---	---	---	---	---	---	---	0.984	0.028	0.018	0.002	ND	ND	ND	
	HB01	0-1	U	8/9/99	6.06	130	4.42	112	-	-	646	-	-	ND	0.114	-	46.6	---	---	---	---	---		
	SF12	0-0.5	U	10/14/03	<18	<202.2	13.9	<62.1	436J	<43,800	385	<1914	<53.1	-	<12.5	1,120	1.1	---	---	---	---	---		
Drainage Swale	SF-12-15	0-1	U	7/21/15	7.1	132	7.6	36.6	-	-	333	-	-	<0.88	1.5	-	0.53	---	---	---	---	---	---	
	SB05	3-4	U	7/18/01	---	---	168	-	-	1120	-	-	---	---	---	26.3	---	---	0.03	1.12	<1.4E-4	---		
	SF-11-15	0-1	U	7/21/15	6.1	70.3	0.85	27	-	-	50.2	-	-	<0.81	<0.29	-	0.045	---	---	---	---	---		
	SF11	0-0.5																						

Table A.3.a.
Residual Soil Contamination Table - VOC's

St. Francis Auto Wreckers - Proj. 6078
 4043 S. Pennsylvania Avenue, St. Francis, WI 53235

				1,2-Dichlorobenzene	1,2-Dichloroethane	1,4-Dichlorobenzene	Benzene	Chloroform	Chloromethane	Ethylbenzene	Methyl-tert-butyl ether	Methylene Chloride	Naphthalene	Styrene	Tetrachloroethene	Toluene	Trichloroethene	cis-1,2-Dichloroethene	Xylenes, total	trans-1,2-Dichloroethene	Total Trimethylbenzenes
Boring ID	Depth (ft)	Saturated/ Unsaturated (S/U)	Collection Date																		
HP-13	12	U	8/9/99				45														
GP-1	0-1	U	7/17/15															83.2			
	13	U	7/17/15				44J										69.5	133			
HP15	12	U	8/9/99														1,000	6,700	130		
MW-8	15-17.5	U	3/1/18														35.8J	139			
GP-2	0-1	U	7/17/15														62.8J	131			
	9-10	U	7/17/15				68.1J									42.2J					
HP16	8	U	8/9/99				340									960			1,200	630	20,600
	12	U	8/9/99				720										69	110			
HP17	10	U	8/9/99		180	260				44						56	130	98			
SF-15-15	0-1	U	7/17/15														193	1,180			
	3-4	U	7/17/15														116	308			
HP18	12	U	8/9/99													34					
GP-3	0-1	U	7/17/15													252	42.1J	64.4J			
	15-16	U	7/17/15				28.4J														
SF-14-15	0-1	U	7/17/15				801			4,640			6,940	2,220		8,280	173	124J	29,030	25,830	
	3-4	U	7/17/15				818			12,400			12,200			1,160			58,250	54,700	
HP20	12	U	8/9/99		730	260							700			2,600	46			3,970	
MW-7	0-2.5	U	3/1/18															38.0J			
HP22	12	U	8/9/99														120	36			
MW-11	5-6	U	11/12/96				29		85							250		160	66		
HP23	10	U	8/9/99				35														
SF6S3	7.5-9	U	7/23/91	-	-					-	-	42.3	-	-				-	-	-	
SF6S4	10-11.5	U	7/23/91	-	-		126	-		-	-	108	-	-			18.4	-		-	
SF7S4	10-11.5	U	7/23/91	-	-					-	-	10.5	-	-							
SF8S2	5-6.5	U	7/23/91	-	-				-	-	-	21.1	-	-							
SF8S4	10-11.5	U	7/23/91	-	-				-	-	-	9.67	-	-							
SF9S2	5-6.5	U	7/23/91	-	-				-	-	-	26.3	-	-							
SF9S3	7.5-9	U	7/23/91	-	-				-	-	-	-	-	-			4721				
SF9AS2	5-6.5	U	7/23/91	-	-				-	-	-	21.5	-	-							
To West in Current Road	GP-4	1.5-3	U	3/1/18			94.1J			11300		99.4J	3310	1070	258	5090	203	1130	62700	63.0J	12,340
	GP-5	0-2.5	U	3/1/18													827				
HP04	12	U	8/9/99						-			43									
HP06	12	U	8/9/99				490	-	2500									4100		8,600	
GP-6	0-2.5	U	3/1/18													514	53.3J				
	8	U	8/9/99	30000				-	3800			3000				2800	1700	1400	1E+05	48,000	
HP07	8	U	8/9/99					-				46	910			74		190	60		
	12	U	8/9/99					-								4700	6600	3500		340	
HP08	12	U	8/9/99				48	-													
HP09	8	U	8/9/99					-	1E+05			4000							354000	52,000	
	12	U	8/9/99		940			-	10000			2700							93500	17,570	
HP10	12	U	8/9/99	2500			1700	-	63000			39000				21000				2E+05	
HP11	12	U	8/9/99				45	-								100	93	120			
HP12	8	U	8/9/99				1000	-	39000			4400							47000	1,400	
	12	U	8/9/99				790	-	58000			15000							91790	9,100	
MW-12	4	U	11/12/96				27														
MW-13	4	U	11/12/96				42		94								20				
Groundwater Pathway RCL				1168	2.84	144	5.1	3.3	15.5	1570	27	2.56	658	220	4.54	1107	3.6	41.2	3940	52.8	1382
Non-Industrial Direct Contact Pathway RCL				376000	608	3480	1490	423	171000	7470	59400	60700	5150	867000	30700	818000	1260	156000	258000	1560000	NS
Industrial Direct Contact Pathway RCL				376000	3030	17500	7410	2130	720000	37000	293000	1070000	26000	867000	153000	818000	8810	2040000	258000	1850000	NS

Groundwater Pathway and Direct Contact RCLs calculated using the USEPA Regional Screening Level Web Calculator (PUB-RR-890)

All values expressed in micrograms per kilogram ($\mu\text{g}/\text{kg}$).

VOCs - volatile organic compounds

RCL - Residual Contaminant Level

ft-BGS - feet below ground surface

NS - no standard established

Blank cell - less than RCL's/laboratory method detection limit (MDL)

J - estimated concentration above the adjusted MDL & below the adjusted reporting limit

--- not analyzed

-- not analyzed or not tabulated

Italics Underlined - Groundwater Pathway Exceedance

Bold - Non-Industrial Direct Contact Exceedance

Bold Underlined - Industrial Direct Contact Exceedance

* Based on the reported lateral excavation limits and reported cubic yards of removal of soil in the north vacant lot, Moraine estimates the average depth of excavation to be closer to 6.5 feet below ground surface, not 4 feet as documented in the excavation report by STN dated June 30, 2009. Note: samples E-38 to E-45 are composite samples collected from the five (5) base samples in each designated excavation quadrant.

Table A.3.b.
Residual Soil Contamination Table - PCB's
 St. Francis Auto Wreckers - Proj. 6078
 4043 S. Pennsylvania Avenue, St. Francis, WI 53235

Boring ID	Depth (ft-BGS)	Saturated/Unsaturated (S/U)	Collection Date	PCB, Total	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)
HP14	6	U	8/9/99	<u>0.49</u>			0.23	0.26
GP-1	0-1	U	7/17/15	<u>0.938</u>			0.298	0.556
	13	U	7/17/15	<u>0.222</u>				
A2	0-0.5	U	5/16/91	<u>0.976</u>				0.976
	0.5-1	U	5/16/91	<u>0.096</u>				
HP15	2	U	8/9/99	<u>3.7</u>			3.7	
MW-8	0-2.5	U	3/1/18	<u>11.3</u>				11.3
	15-17.5	U	3/1/18	<u>2.66</u>				2.66
GP-2	0-1	U	7/17/15	<u>0.181</u>				
	9-10	U	7/17/15	<u>4.76</u>	0.762		0.961	3.04
B1	0-0.5	U	5/16/91	<u>6.06</u>		4.37		1.69
GP-3	0-1	U	7/17/15	<u>4.31</u>		1.36	1.7	1.25
SF-15	0-0.5	U	10/14/03	---	---	---		1.100
SF-15-15	0-1	U	7/17/15	<u>1.82</u>			0.509	1.32
B3	0-0.5	U	5/16/91	30.67		27.8		2.87
BC4	0-0.5	U	5/15/91	<u>6.76</u>		4.66		2.1
	0.5-1	U	5/15/91	<u>4.04</u>		4.04		
C1	0.5-1	U	5/15/91	50.7		50.7		
C2	0-0.5	U	5/15/91	<u>7.98</u>		6.75		1.23
C3	0-0.5	U	5/15/91	52.67		49.9		2.77
	0.5-1	U	5/15/91	<u>1.68</u>				1.68
HP-13	2	U	8/9/99	<u>8.3</u>			8.3	
CD4	0-0.5	U	5/15/91	<u>10.18</u>		8.44		1.74
	0.5-1	U	5/15/91	<u>0.585</u>		0.585		
D1	0.5-1	U	5/15/91	51.76		48.4		3.36
D2	0-0.5	U	5/15/91	<u>16.91</u>		15.8		1.11
	0.5-1	U	5/15/91	32.51		30.4		2.11
HP19	8	U	8/9/99	<u>1.1</u>			1.1	
D3	0.5-1	U	5/15/91	<u>12.6</u>		12.6		
HP20	4	U	8/9/99	<u>0.82</u>			0.36	0.46
SF-14	0-0.5	U	10/14/03	---	---	0.270J	---	
SF-14-15	0-1	U	7/17/15	<u>0.762</u>	0.312			
	3-4	U	7/17/15	<u>3.966</u>		1.84	1.59	0.536
MW-7	0-2.5	U	3/1/18	<u>0.732</u>			0.284	0.392
HP23	2	U	8/9/99	<u>0.41</u>				
Groundwater Pathway RCL								
0.0094								
Non-Industrial Direct Contact Pathway RCL								
25*								
Industrial Direct Contact Pathway RCL								
25*								

Boring ID	Depth (ft-BGS)	Saturated/Unsaturated (S/U)	Collection Date	PCB, Total	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)
HB01	0-1	U	8/9/99	<u>5.4</u>				5.4
SF-12-15	0-1	U	7/21/15	<u>1.67</u>				0.428
SF-11-15	0-1	U	7/21/15	<u>0.0356J</u>				1.16
HB02	0-1	U	8/9/99	<u>0.35</u>				0.35
HP01	2	U	8/9/99	<u>0.021</u>				
SB01	4-5	U	7/18/01	27			27	
HP05	2	U	8/9/99	<u>1.6</u>			1.6	
HP06	2	U	8/9/99	<u>0.3</u>			0.3	
MW-6	0-2.5	U	3/1/18	<u>1.51</u>			0.527	0.781
	15-17.5	U	3/1/18	<u>0.030J</u>				
SF08	0-0.5	U	10/14/03	<u>1.240</u>	---	---	0.350	0.890
E-23	0-5	U	2/12/09	<u>1.4</u>	---	---	---	---
E-27	0-5	U	2/12/09	<u>0.83</u>	---	---	---	---
E-29	0-5	U	2/12/09	<u>1.7</u>	---	---	---	---
E-38	4-6.5*	U	3/27/09	70	---	---	---	---
E-39	4-6.5*	U	3/27/09	82	---	---	---	---
E-40	4-6.5*	U	3/27/09	71	---	---	---	---
E-41	4-6.5*	U	3/27/09	76	---	---	---	---
E-42	4-6.5*	U	4/1/09	70	---	---	---	---
E-43	4-6.5*	U	4/1/09	73	---	---	---	---
E-44	4-6.5*	U	3/31/09	44	---	---	---	---
E-45	4-6.5*	U	3/31/09	44	---	---	---	---
SF6S2	5-6.5	U	7/23/91	<u>0.161</u>	---	---	---	---
SF9S2	5-6.5	U	7/23/91	<u>1.65</u>	---	---	---	---
SF9S3	7.5-9	U	7/23/91	<u>2.68</u>	---	---	---	---
Groundwater Pathway RCL								
0.0094								
Non-Industrial Direct Contact Pathway RCL								
25*								
Industrial Direct Contact Pathway RCL								
25*								

All values expressed in milligrams per kilogram (mg/kg) equivalent to parts per million (ppm).

PCBs - Polychlorinated Biphenyls

RCL - Residual Contaminant Level

ft-BGS - feet below ground surface

NS - no standard established

--- - not analyzed

Blank Cell - less than RCLs/laboratory method detection limit (MDL)

J - estimated concentration above detection limit & below reporting limit

Italics Underlined - Groundwater Pathway Exceedance

Bold - Non-Industrial Direct Contact Exceedance

Boxed - Industrial Direct Contact Exceedance

* Based on the reported lateral excavation limits and cubic yards of soil removed in the north vacant lot, Moraine estimates the average depth of excavation to be closer to 6.5 feet BGS, not 4 feet as documented in the excavation report by STN (June 2009). Note: samples E-38 to E-45 are composite samples collected from the five (5) base samples in each designated excavation quadrant.

*The Toxic Substances Control Act (TSCA) requires Total PCB concentration to be less than 25 ppm for closure of a low occupancy area.

Table A.3.c.
Residual Soil Contamination Table - PAH's & SVOC's

St. Francis Auto Wreckers - Proj. 6078
 4043 S. Pennsylvania Avenue, St. Francis, WI 53235

Boring ID	Depth (ft-BGS)	Saturated/ Unsaturated (S/U)	Collection Date	Polycyclic Aromatic Hydrocarbons (PAHs) (µg/kg)							SVOCs (µg/kg)		
				Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenol	bis(2-Ethylhexyl)phthalate	Pentachlorophenol
South, Auto Salvage Yard Lot	GP-1	0-1	U	7/17/15	1,490	1,550	1,740	1,390	241		--	--	-
		13	U	7/17/15	6,580	6,190	5,760	5,800	1,380	3,700	--	--	-
	MW-8	0-2.5	U	3/1/18	5,470	4,080	4,870	5,260	598 J	2,460			-
		15-17.5	U	3/1/18	506	735	720						-
	SF15	0-0.5	U	10/14/03	---	---	---	---	---	---	2,700J	5,200J	-
	SF-15-15	0-1	U	7/17/15	7,290	6,750	6,620	8,750	1,120	2,910	--	--	-
	GP-3	0-1	U	7/17/15				151			--	--	-
	SF14	0-0.5	U	10/14/03	---	---	---	---	---	---	-	3,700J	-
	SF-14-15	3-4	U	7/17/15						5,350	--	--	-
	MW-7	12.5-15	U	3/1/18			195						-
Drainage Swale	SF12	0-0.5	U	10/14/03	---	---	---	---	---	---	3,700J	-	-
	SF-12-15	0-1	U	7/21/15		220		272			--	--	-
	SF11	0-0.5	U	10/14/03	---	---	---	---	---	---	16,000		7,400J
	SF-11-15	0-1	U	7/21/15	1,660	1,470	1,260	1,810	322 J		--	--	-
	GP-4	1.5-3	U	3/1/18		292		316			--	--	-
N, Vacant Lot	GP-6	0-2.5	U	3/1/18		547	759	703			--	--	-
	GP-5	0-2.5	U	3/1/18		589	760	643			--	--	-
	Groundwater Pathway RCL (µg/kg)			NS	470	478.1	144.2	NS	NS	658.2	2,294.6	2,880	2.8
Non-Industrial DC Pathway RCL (µg/kg)				1,140	115	1,150	115,000	115	1,150	5,520	19,000,000	38,800	1,020
Industrial DC Pathway RCL (µg/kg)				20,800	2,110	21,100	2,110,000	2,110	21,100	24,100	100,000,000	164,000	3,970

Groundwater Pathway and Direct Contact RCLs calculated using the USEPA Regional Screening Level Web Calculator (PUB-RR-890)

PAH - Polycyclic Aromatic Hydrocarbons µg/kg - micrograms per kilogram

--- - not analyzed

SVOC - Semi-Volatile Organic Compounds ft-BGS - feet below ground surface

-- - not analyzed or not tabulated

DC - Direct Contact NS - no standard established

Blank Cell - less than RCLs/laboratory method detection limit (MDL)

RCL - Residual Contaminant Level ND - not detected

J - estimated concentration above the adjusted MDL & below the adjusted reporting limit

Italics Underlined - Groundwater Pathway Exceedance

Bold - Non-Industrial Direct Contact Exceedance

Boxed - Industrial Direct Contact Exceedance

Table A.3.d.
Residual Soil Contamination Table - Metals

St. Francis Auto Wreckers - Proj. 6078
 4043 S. Pennsylvania Avenue, St. Francis, WI 53235

	Boring ID	Depth (ft-BGS)	Saturated/Unsaturated (S/U)	Collection Date	RCRA Metals (mg/kg)							
					Arsenic	Barium	Cadmium	Chromium	Lead	Selenium	Silver	Mercury
Auto Salvage Yard Portion of Property	SB07	4-5	U	7/18/01	---	---	---	94.5	1710	---	---	---
	HP14	6	U	8/9/99	17.3		3.9	137	384		1.05	0.214
	GP-1	0-1	U	7/17/15			16.5		1010		3.1	
		13	U	7/17/15			3.1		162		0.84J	
	MW-8	0-2.5	U	3/1/18			2.2		103		1.0J	
		15-17.5	U	3/1/18			2.6		115			
	GP-2	0-1	U	7/17/15	13.2 J	484	19.8		242			
		9-10	U	7/17/15	57.4		15.9		464	1.3 J		
	SF-15-15	0-1	U	7/17/15	14.6 J	627	38.2	963	1570		16.6	0.23
		3-4	U	7/17/15					77.9			
	SF15	0-0.5	U	10/14/03	-							7.500
	GP-3	0-1	U	7/17/15			8.9		1000			
	SF-14-15	0-1	U	7/17/15			37.4	96	530		6.3	0.58
	HP20	4	U	8/9/99				46.7				
	MW-7	0-2.5	U	3/1/18	8.7		23		473	3.2 J	1.7	7.8
	HP22	4	U	8/9/99	9.6							
Drainage Swale	HB01	0-1	U	8/9/99			4.42	112	646			46.6
	SF-12-15	0-1	U	7/21/15			7.6		333		1.5	0.53
	SB05	3-4	U	7/18/01	---	---	---	168	1120	---	---	26.3
	HB02	0-1	U	8/9/99		1800	40.1		531	6.92	9.61	1.06
	SB06	3-4	U	7/18/01	---	---	2		108	---	---	---
	HP05	2	U	8/9/99	15.9		72	96	1390	0.8		5.3
	SB01	4-5	U	7/18/01	---	---	13		1280	---	---	3.7
	HP06	2	U	8/9/99	38.6				132	378		1.7
	SB02	4-5	U	7/18/01	---	---	---	56	216	---	---	---
	MW-6	0-2.5	U	3/1/18								0.25
Groundwater Pathway RCL (mg/kg)					0.584	164.8	0.752	360,000	27	0.52	0.8491	0.208
Non-Industrial DC Pathway RCL (mg/kg)					0.677	15,300	71.1	NS	400	391	391	3.13
Industrial DC Pathway RCL (mg/kg)					3	100,000	985	NS	800	5,840	5,840	3.13
Background Threshold Value (mg/kg)					8.3	364	1.07	43.5	51.6	NS	NS	NS

Groundwater Pathway and Direct Contact RCLs calculated using the USEPA Regional Screening Level Web Calculator (PUB-RR-890)

If applicable, RCL exceedances are determined by the background threshold value or the listed pathway RCL, whichever is greater.

RCRA - Resource Conservation & Recovery Act

--- - not analyzed

DC - Direct Contact

< - less than the laboratory method detection limit (MDL)

RCL - Residual Contaminant Level

J - estimated concentration above the detection limit & below the reporting limit

TCLP - Toxicity Characteristic Leaching Procedure

-- - not analyzed or not tabulated

mg/kg - milligrams per kilogram

Italics - Groundwater Pathway Exceedance

mg/L - milligrams per liter

Bold - Non-Industrial Direct Contact Exceedance

ft-BGS - feet below ground surface

Boxed - Industrial Direct Contact Exceedance

NS - no standard established for this analyte

Double Underlined - exceeds background threshold value

ND - not detected

* Based on the reported lateral excavation limits and reported cubic yards of removal of soil in the north vacant lot, Moraine estimates the average depth of excavation to be closer to 6.5 feet below ground surface, not 4 feet as documented in the excavation report by STN dated June 30, 2009. Note: samples E-38 to E-45 are composite samples collected from the five (5) base samples in each designated excavation quadrant.

Table A.4.
Vapor Analytical Table
St. Francis Auto Wreckers
4043 S Pennsylvania Avenue
St. Francis, WI 53235

Sample ID	SS-1	SS-2	SS-3	SS-4	SS-5	RSS-1	RSS-2	Residential		Small Commercial		Large Commercial	
Date Collected	07/24/18	07/24/18	07/24/18	07/24/18	07/24/18	09/26/19	09/26/19	AF = 0.03		AF = 0.03		AF = 0.01	
AA=Ambient Air/SS=Sub-Slab	SS	SS	SS	SS	SS	SS	SS	Indoor Air VAL	Sub-Slab VRSL	Indoor Air VAL	Sub-Slab VRSL	Indoor Air VAL	Sub-Slab VRSL
Volatile Organic Compounds ($\mu\text{g}/\text{m}^3$) by EPA Method TO-15													
1,1,1-Trichloroethane	3.6	90.9	35.6	84	10.3	<0.61	<0.41	5,200	170,000	22,000	730,000	22,000	2,200,000
1,1,2,2-Tetrachloroethane	<0.52	<0.49	<0.49	<0.53	<0.56	<0.61	<0.41	0.48	16	2.1	70	2	210
1,1,2-Trichloroethane	<0.40	<0.38	<0.38	<0.41	<0.43	<0.47	<0.32	1.8	60	7.7	260	7.7	770
1,1,2-Trichlorotrifluoroethane	0.67 J	<0.62	<0.62	<0.68	<0.71	<1.1	<0.76	---	---	---	---	---	---
1,1-Dichloroethane	<0.38	0.69 J	<0.36	<0.39	<0.41	<0.44	<0.30	18	600	77	2,600	77	7,700
1,1-Dichloroethene	<0.42	<0.40	<0.40	<0.43	<0.46	<0.54	<0.37	210	7,000	880	29,000	880	88,000
1,2,4-Trichlorobenzene	<1.7	<1.6	<1.6	<1.8	<1.8	<7.3	<5.0	21	700	88	2,900	88	8,800
1,2,4-Trimethylbenzene	44.7	40.4	51	36	46.2	65.9	14.9	63	2,100	260	8,700	260	26,000
1,2-Dibromoethane (EDB)	<0.60	<0.56	<0.56	<0.61	<0.64	<0.72	<0.49	0.047	1.6	0.2	6.7	0.2	20
1,2-Dichlorobenzene	<0.58	<0.55	<0.55	<0.60	<0.63	<0.98	<0.67	210	7,000	880	29,000	880	88,000
1,2-Dichloroethane	<0.35	<0.33	<0.33	<0.36	<0.38	<0.29	<0.20	1.1	37	4.7	160	4.7	470
1,2-Dichloropropane	<0.55	<0.51	<0.51	<0.56	<0.59	<0.45	<0.31	3	93	12	400	12	1,200
1,3,5-Trimethylbenzene	10.5	9.6	12.1	8.6	11.2	17.7	4.0	63	2,100	260	8,700	260	26,000
1,3-Butadiene	<0.37	<0.35	<0.35	<0.38	<0.40	<0.25	<0.17	0.94	31	4.1	137	4.1	410
1,3-Dichlorobenzene	<0.83	6.9	<0.78	7.2	1.1 J	<1.1	<0.78	---	---	---	---	---	---
1,4-Dichlorobenzene	<0.39	<0.37	1.5 J	<0.40	<0.42	<2.0	<1.3	2.6	87	11	370	11	1,100
2-Butanone (MEK)	46.4	29.3	29.4	28.3	50.6	18.5	16.5	5,200	170,000	22,000	730,000	22,000	2,200,000
2-Hexanone	<1.1	1.4 J	<1.0	1.5 J	<1.2	<1.5	<1.0	31	1,000	130	4,300	130	13,000
2-Propanol	<2.2	11.6	13.5	74.3	11.8	4.7 J	55.9	---	---	---	---	---	---
4-Ethyltoluene	11.6	10.3	13.7	8.5	10.7	20.5	5.1	---	---	---	---	---	---
4-Methyl-2-pentanone (MIBK)	12.6	11.1	12.2	10.1	<0.68	7.8 J	9.3	3,100	100,000	13,000	430,000	13,000	1,300,000
Acetone	482	253	211	239	262	101	96.1	32,000	1,070,000	140,000	4,700,000	140,000	14,000,000
Benzene	15.8	15.4	17.9	9.8	139	12.8	3.2	3.6	120	16	530	16	1,600
Benzyl chloride	<0.42	<0.40	<0.40	3.6 J	<0.45	<2.4	<1.6	1	19	2.5	84	2.5	250
Bromodichloromethane	<0.64	8.1	0.80 J	5	<0.68	0.88 J	<0.49	0.76	25	3.3	110	3.3	330
Bromoform	<1.2	<1.2	<1.2	<1.3	<1.3	<2.8	<1.9	26	870	110	3,670	110	11,000
Bromomethane	<0.37	<0.35	<0.35	<0.38	<0.40	<0.44	<0.30	5.2	170	22	730	22	2,200
Carbon disulfide	3.3	21.3	1.2	4.3	186	21.2	6.1	730	24,000	3,100	100,000	3,100	310,000
Carbon tetrachloride	3.3 J	3.2 J	3.1 J	<0.58	3.4 J	<0.84	<0.57	4.7	160	20	670	20	2,000
Chlorobenzene	<0.32	<0.30	<0.30	<0.33	<0.34	<0.54	<0.37	52	1,700	220	7,330	220	22,000
Chloroethane	<0.37	<0.34	<0.34	<0.37	16.5	<0.51	<0.35	---	---	---	---	---	---
Chloroform	2.3	45.3	5.5	12.2	<0.44	2.9	1.1	1.2	40	5.3	180	5.3	530
Chloromethane	1.2	0.95	0.32 J	<0.25	2.8	<0.31	0.98	94	3,100	390	13,000	390	39,000
Cyclohexane	<0.41	<0.38	<0.38	<0.42	<0.44	22.2	22.7	6,300	21,000	26,000	870,000	26,000	2,600,000
Dibromochloromethane	<0.79	0.83 J	<0.74	1.1 J	<0.85	<1.4	<0.96	---	---	---	---	---	---
Dichlorodifluoromethane	2.3	3.3	2.4	3.5	3.4	1.7 J	1.9	100	3,300	440	15,000	440	44,000
Dichlorotetrafluoroethane	<0.79	2.7	<0.74	1.1 J	<0.85	<0.86	<0.59	---	---	---	---	---	---
Ethanol	198	337	357	9650	179	380	107	---	---	---	---	---	---
Ethyl acetate	0.84 J	1.2 J	<0.33	<0.36	<0.38	<0.37	76.4	73	2,400	350	12,000	350	35,000
Ethylbenzene	21.6	19.6	22.8	15.5	18.2	37.7	14.9	11	370	49	1,600	49	4,900
Hexachloro-1,3-butadiene	<1.6	<1.5	<1.5	<1.6	<1.7	<3.9	<2.6	1.3	43	5.6	190	5.6	560
Methyl-tert-butyl ether	1.5 J	<1.1	<1.1	1.5 J	<1.3	<1.3	<0.89	110	3,700	470	16,000	470	47,000
Methylene Chloride	3.8 J	4.2 J	7.7	<2.8	5.7 J	3.9 J	243	630	21,000	2,600	87,000	2,600	260,000
Naphthalene	17.7	16.5	18.7	19	15.5	11.9	3.6 J	0.83	28	3.6	120	3.6	360
Propylene	<0.28	<0.26	<0.26	<0.29	1890	<0.27	<0.19	3,100	100,000	13,000	430,000	13,000	1,300,000
Styrene	3.9	3.5	3.2	2.4	1.7	7.4	8.7	1,000	330,000	4,400	150,000	4,400	440,000
Tetrachloroethene	6.4	89.3	9.2	102	8.4	9.5	2.5	42	1,400	180	6,000	180	18,000
Tetrahydrofuran	14.6	11.5	12.6	8.5	<0.53	29.4	4.6	---	---	---	---	---	---
Toluene													

Table A.6.
Water Level Elevations

St. Francis Auto Wreckers - Proj. 6078
4043 S Pennsylvania Avenue, St. Francis, WI 53235

Monitoring Well No./ Date	Ground Surface (ft-MSL)	Top of PVC Well Casing (ft-MSL)	Depth to Groundwater (ft)	Groundwater Elevation (ft-MSL)
MW-1	673.82	676.51		
7/26/01	Well screened 661.22'		18.50	658.01
7/21/15	to 646.22'		19.85	656.66
3/7/18		676.46	21.09	655.37
7/24/18			18.24	658.22
10/24/18			16.80	659.66
1/15/19			18.74	657.72
9/26/19			17.82	658.64
MW-2	672.12	675.17		
7/26/01	Well screened 656.42'		17.88	657.29
7/21/15	to 646.42'		18.56	656.61
3/7/18		675.17	18.34	656.83
7/24/18			16.96	658.21
10/24/18			15.07	660.10
1/15/19			17.34	657.83
9/26/19			16.50	658.67
2/4/20			17.00	658.17
MW-3	665.29	664.95		
7/26/01	Well screened 659.12'		14.10	650.85
7/21/15	to 649.12'		Not Located	---
SD-5	665.12	666.22		Converted to MW-3B
3/7/18	Well screened 660.42'		13.97	652.25
7/24/18	to 645.42'		13.72	652.50
MW-3B	665.62	668.24		
10/24/18	Well screened 660.4'		15.23	653.01
1/15/19	to 645.4'		15.36	652.88
9/26/19			15.41	652.83
2/4/20			14.92	653.32
PZ-1	665.42	668.08		Nested with MW-3B
9/26/19	Well screened 626.42		15.73	652.35
2/4/20	to 621.42		15.43	652.65
MW-4	669.97	672.27		
7/26/01	Well screened 659.57'		17.98	654.29
7/21/15	to 649.57'		18.54	653.73
3/7/18		672.31	18.17	654.14
7/24/18			17.76	654.55
10/24/18			16.62	655.69
1/15/19			17.80	654.51
9/26/19			17.02	655.29
MW-5	669.14	671.74		
7/26/01	Well screened 659.74'		18.84	652.90
7/21/15	to 644.74'		18.00	653.74
3/7/18		671.78	19.85	651.93
7/24/18			15.30	656.48
10/24/18			14.90	656.88
1/15/19			15.75	656.03
9/26/19			17.91	653.87
MW-6	670.34	673.24		
3/7/18	Well screened 660.24'		20.38	652.86
7/24/18	to 645.24'		19.40	653.84
10/24/18			18.59	654.65
1/15/19			19.26	653.98
9/26/19			19.12	654.12
2/4/20			18.86	654.38
MW-7	671.79	674.69		
3/7/18	Well screened 661.79'		18.05	656.64
7/24/18	to 646.79'		16.39	658.30
10/24/18			15.35	659.34
1/15/19			16.85	657.84
9/26/19			16.02	658.67
MW-8	675.35	678.35		
3/7/18	Well screened 665.25'		24.30	654.05
7/24/18	to 650.25'		19.60	658.75
10/24/18			19.55	658.80
1/15/19			21.61	656.74
9/26/19			22.12	656.23
PZ-2	673.97	676.76		
9/26/19	Well screened 634.97		21.33	655.43
2/4/20	to 629.47		19.55	657.21

Depth to groundwater is measured from the top of the PVC in stickup wells.

ft - feet

ft-MSL - feet Mean Sea Level

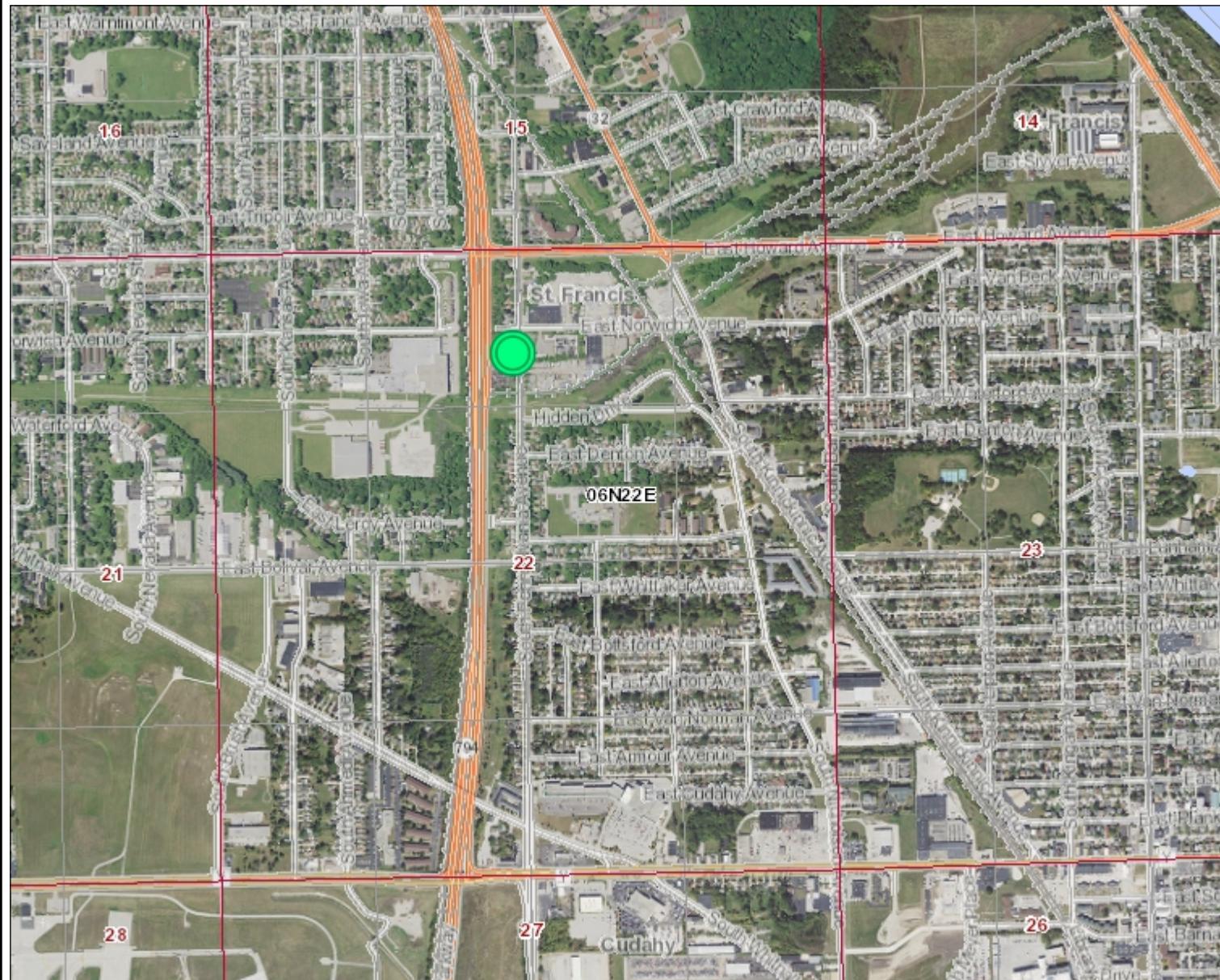
--- Water Level not collected

ATTACHMENT B

FIGURES



B.1.a Location Map



0.5

0

0.25

0.5 Miles

NAD_1983_HARN_Wisconsin_TM

1: 15,840



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Note: Not all sites are mapped.



Legend

Facility-wide Site

PLSS Townships

PLSS Sections

PLSS Q-Q Sections

Municipality

State Boundaries

County Boundaries

Major Roads

Interstate Highway

State Highway

US Highway

County and Local Roads

County HWY

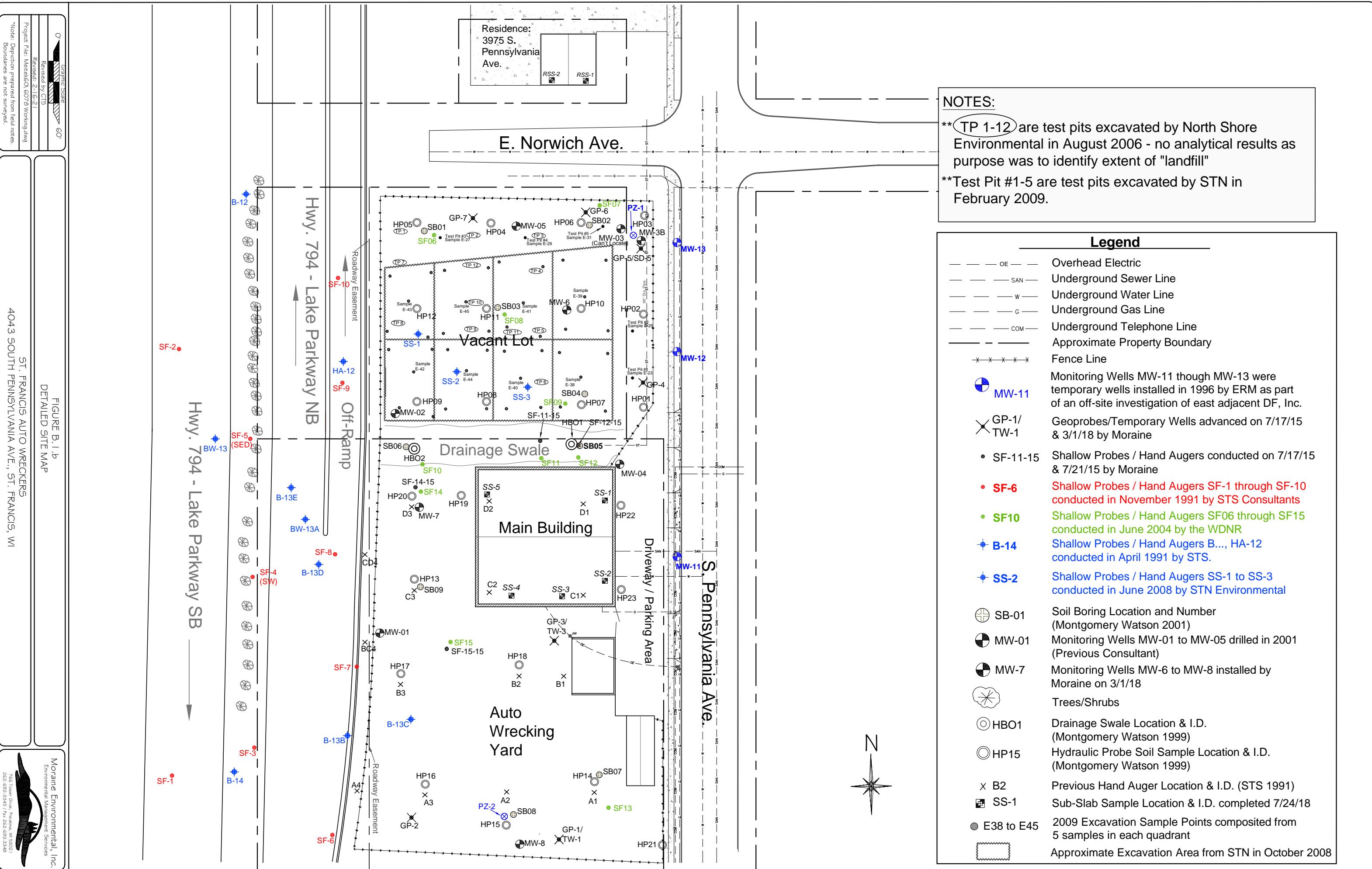
Local Road

Railroads

Tribal Lands

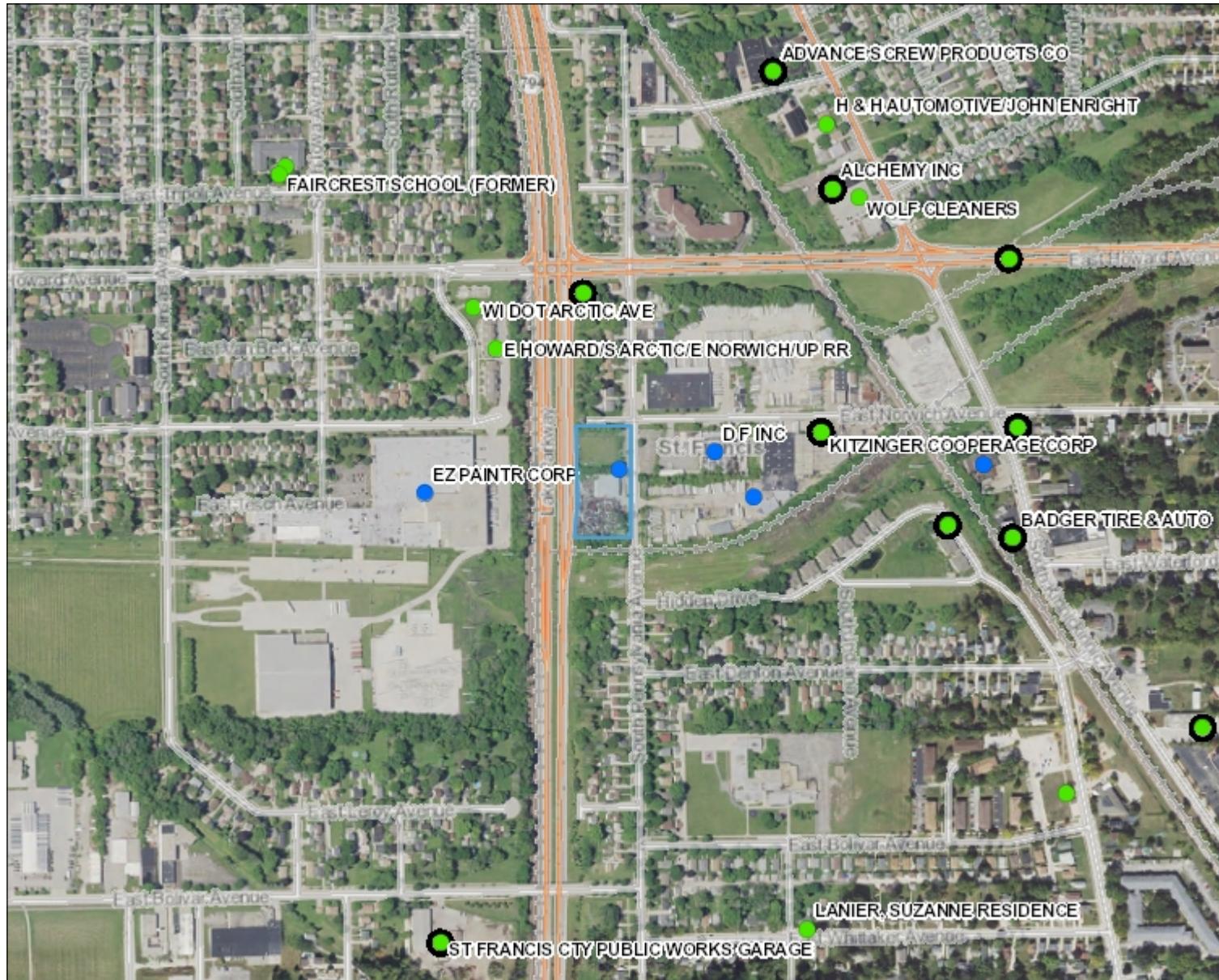
Notes

Saint Francis Auto Wreckers
4043 S. Pennsylvania Avenue, Saint Francis, WI





B.1.c. RR Sites Map



0.3

0

0.13

0.3 Miles

NAD_1983_HARN_Wisconsin_TM

1: 7,920



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Note: Not all sites are mapped.

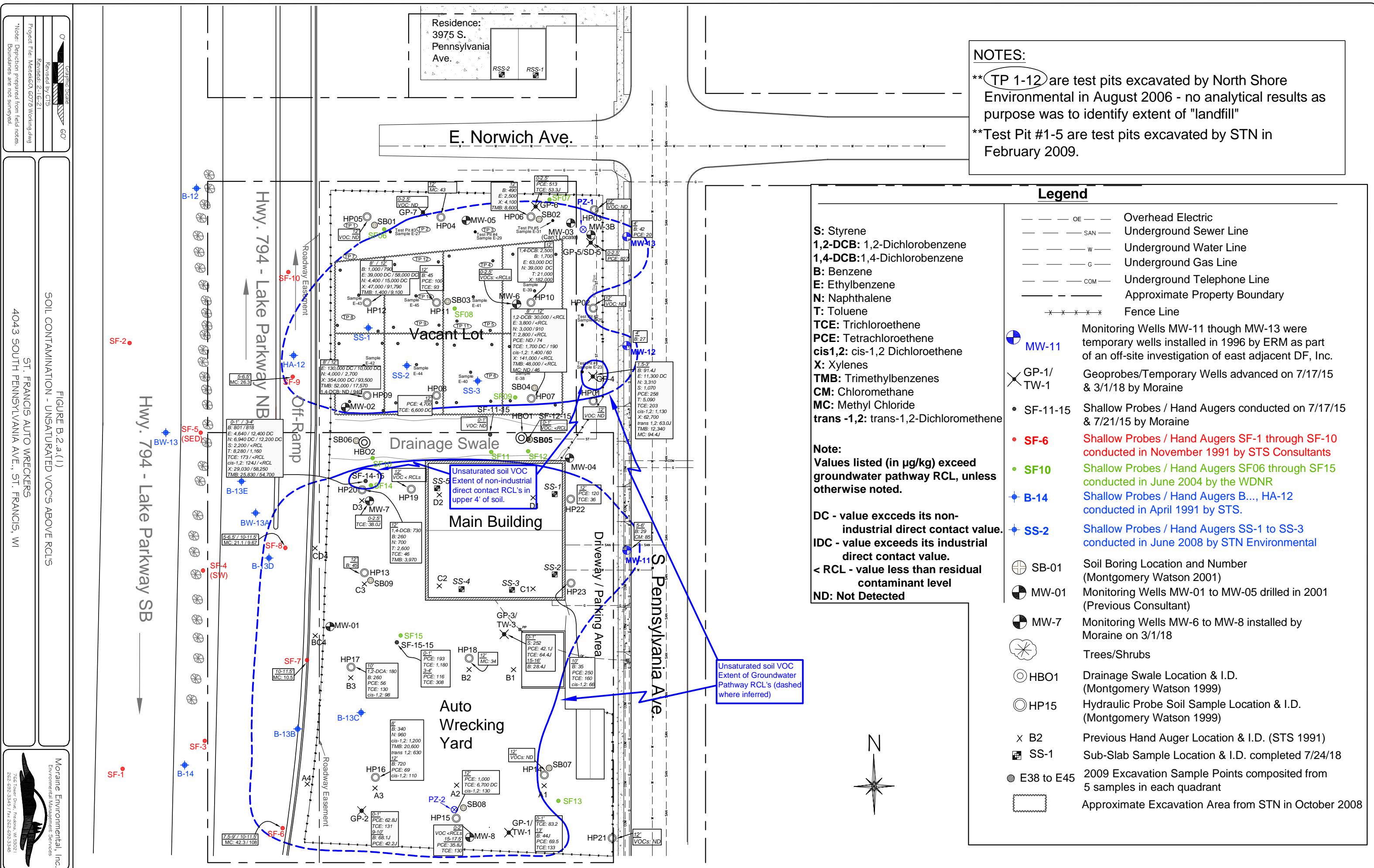


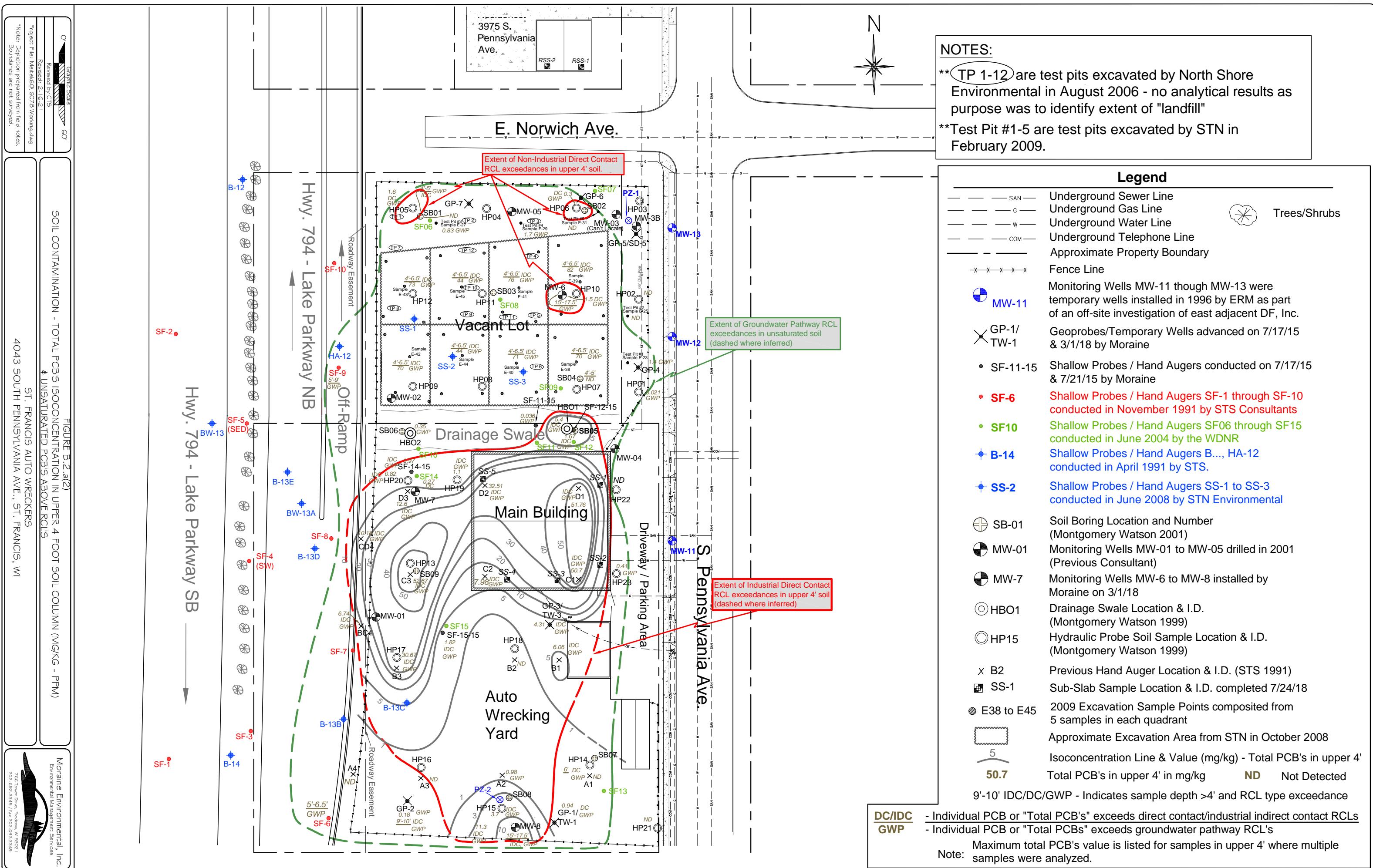
Legend

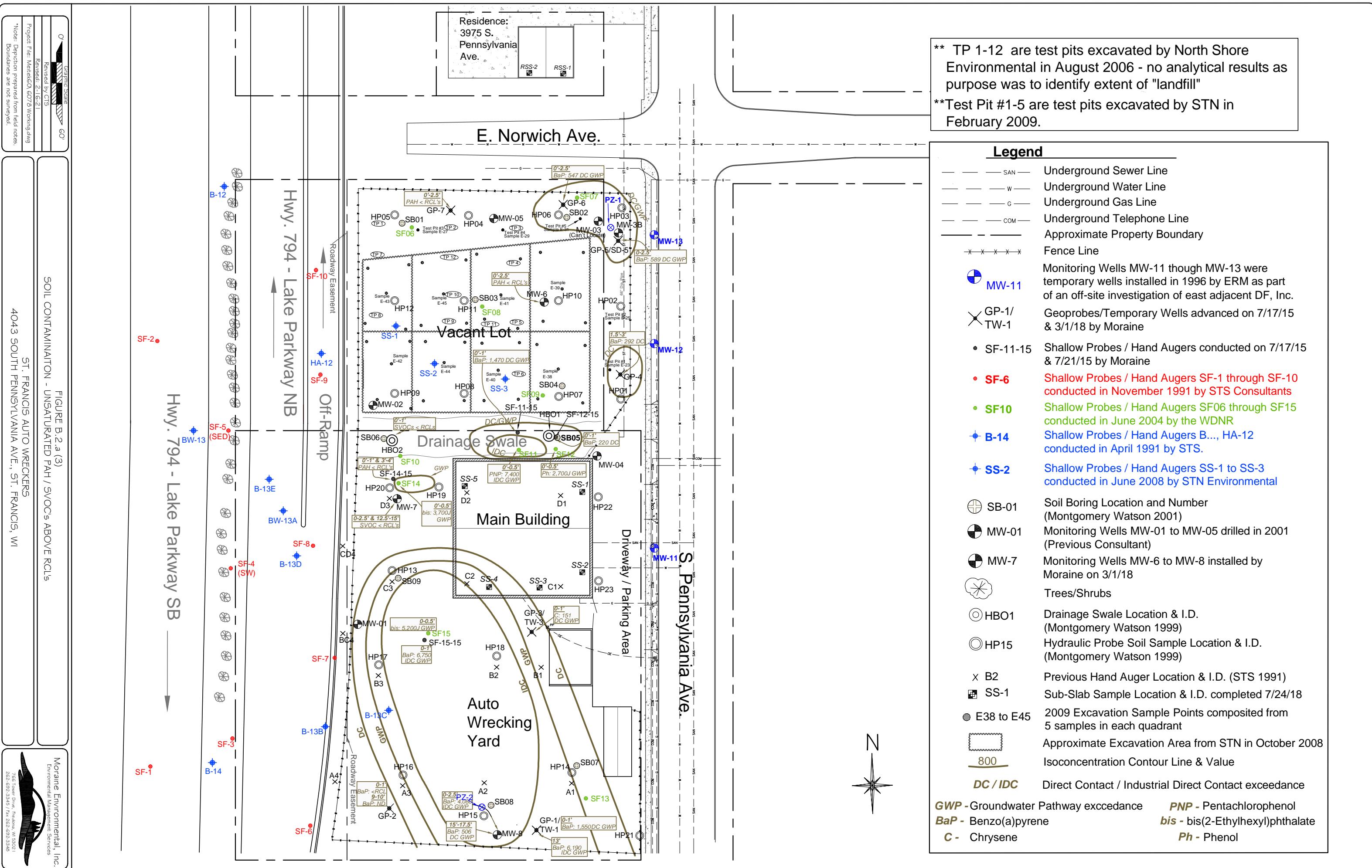
- Open Site
- Closed Site
- Continuing Obligations Apply
- Facility-wide Site
- Municipality
- State Boundaries
- County Boundaries
- Major Roads
 - Interstate Highway
 - State Highway
 - US Highway
- County and Local Roads
 - County HWY
 - Local Road
- + Railroads
- Tribal Lands

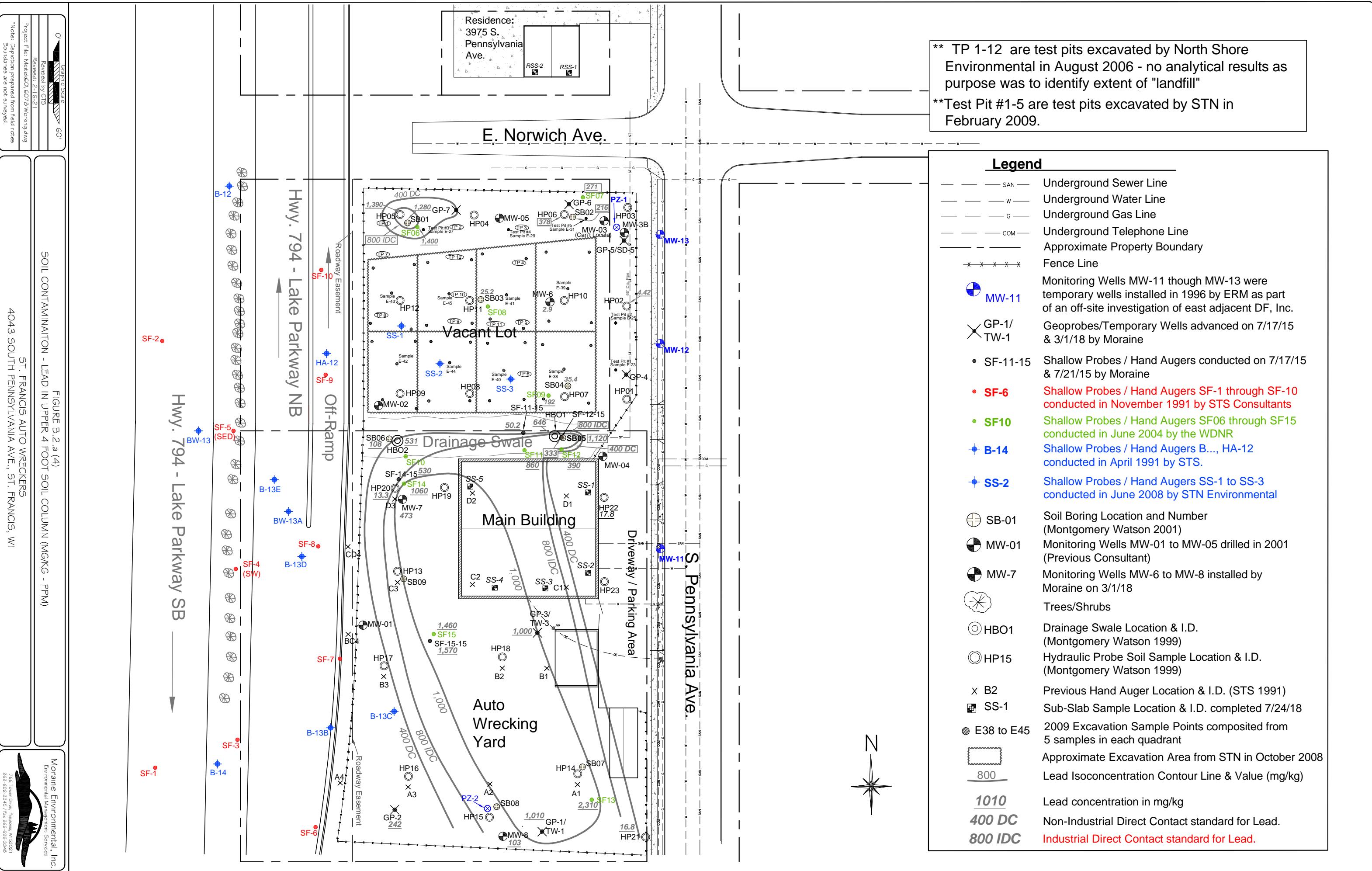
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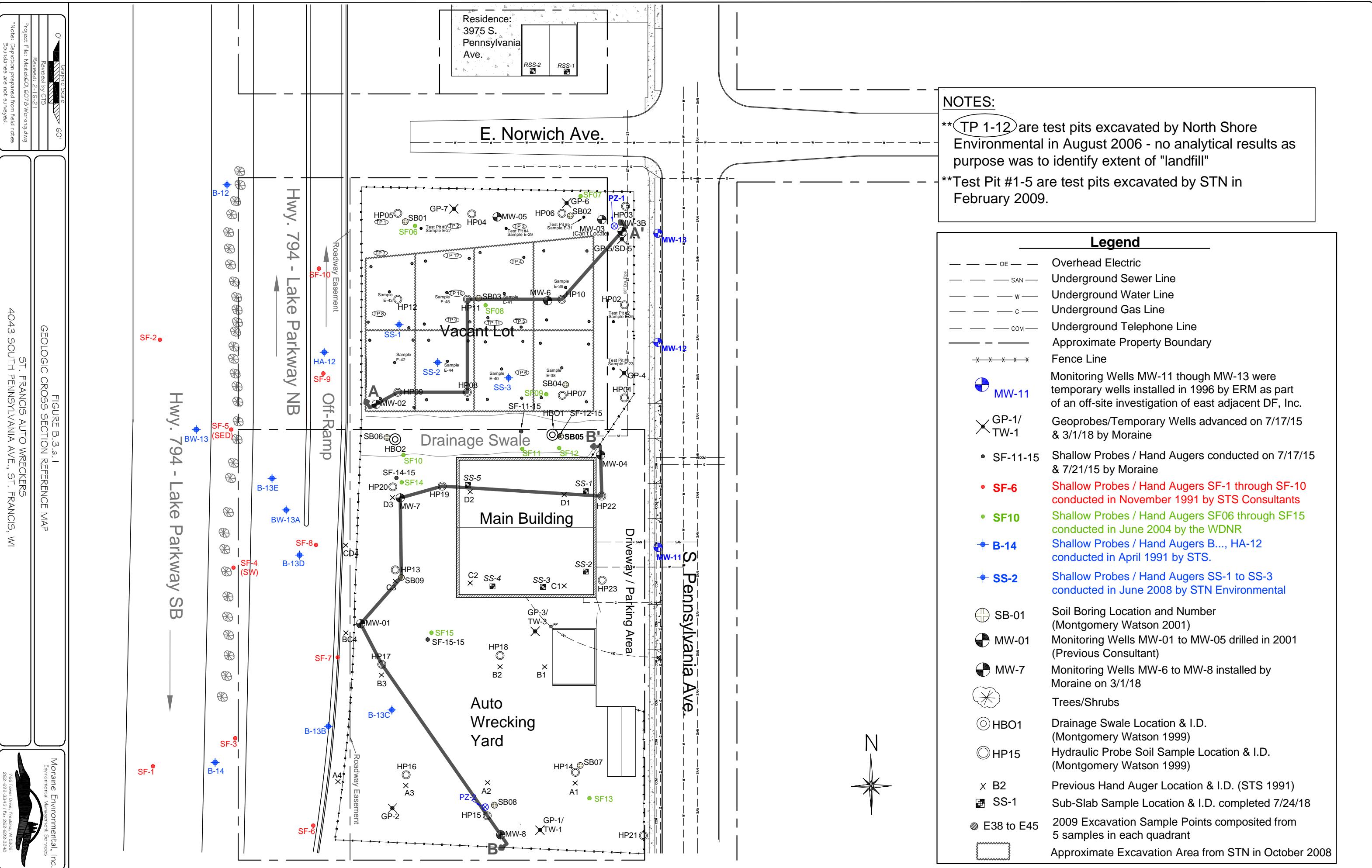
4043 S. Pennsylvania Ave
St. Francis, WI

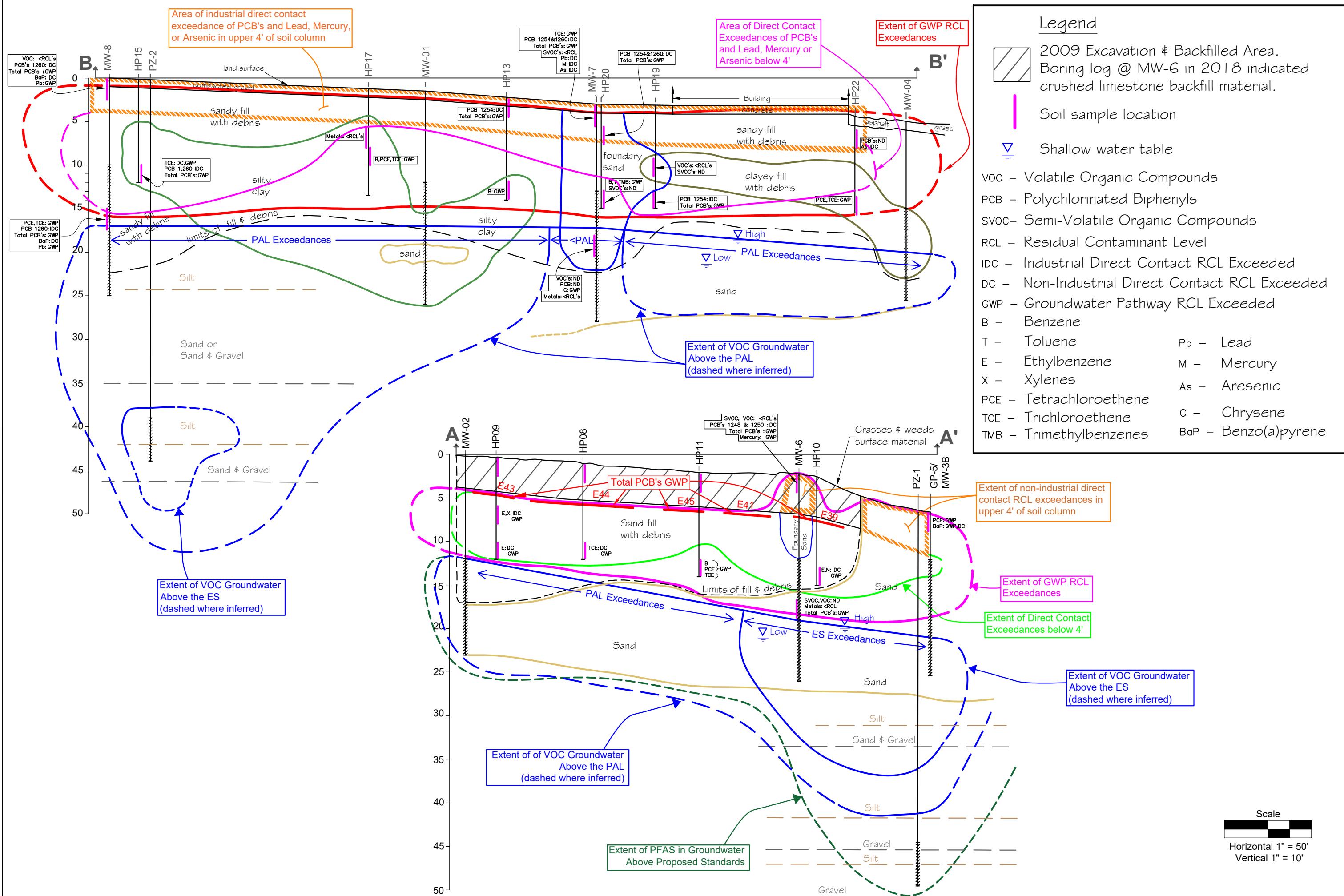






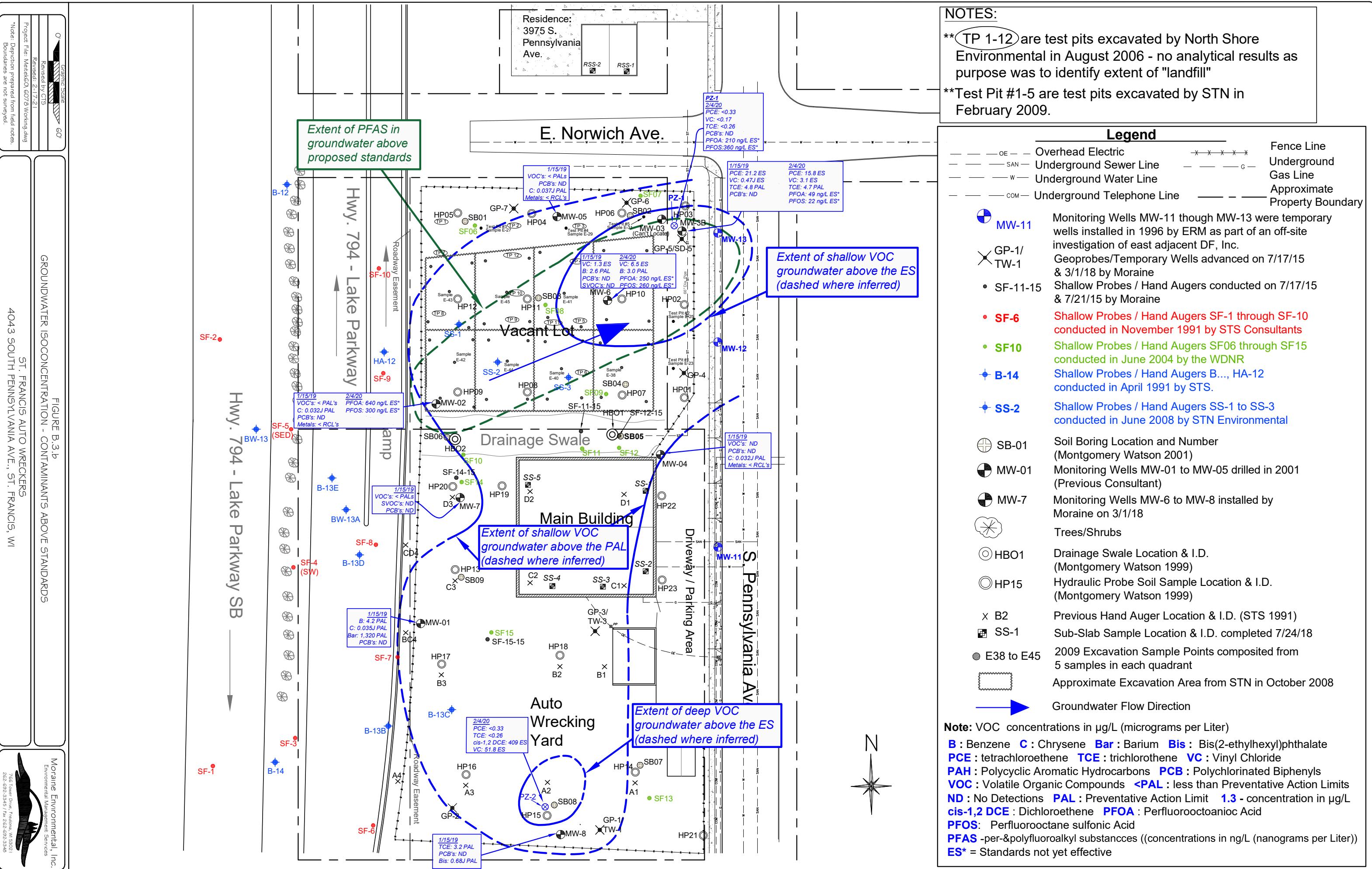


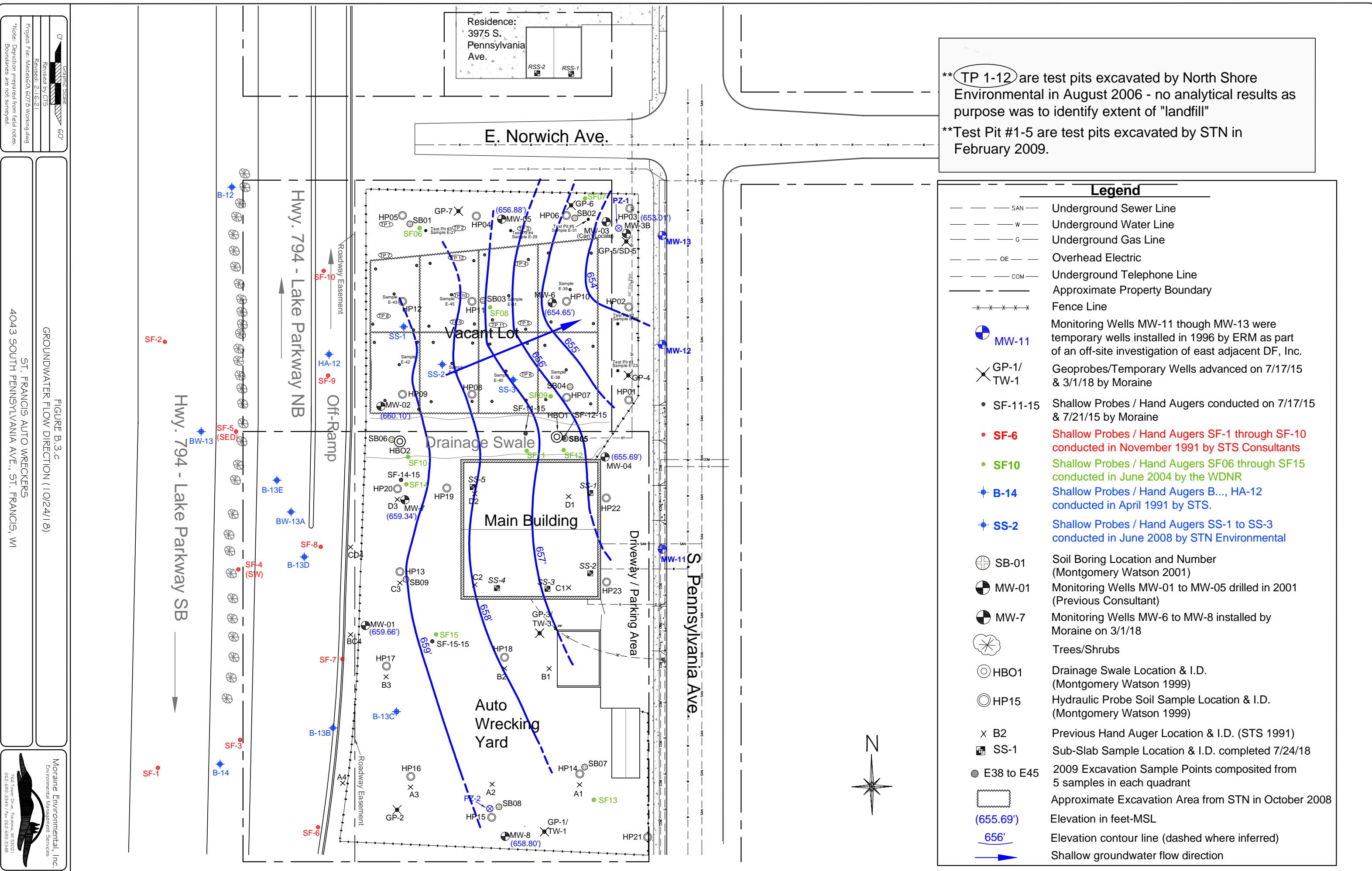


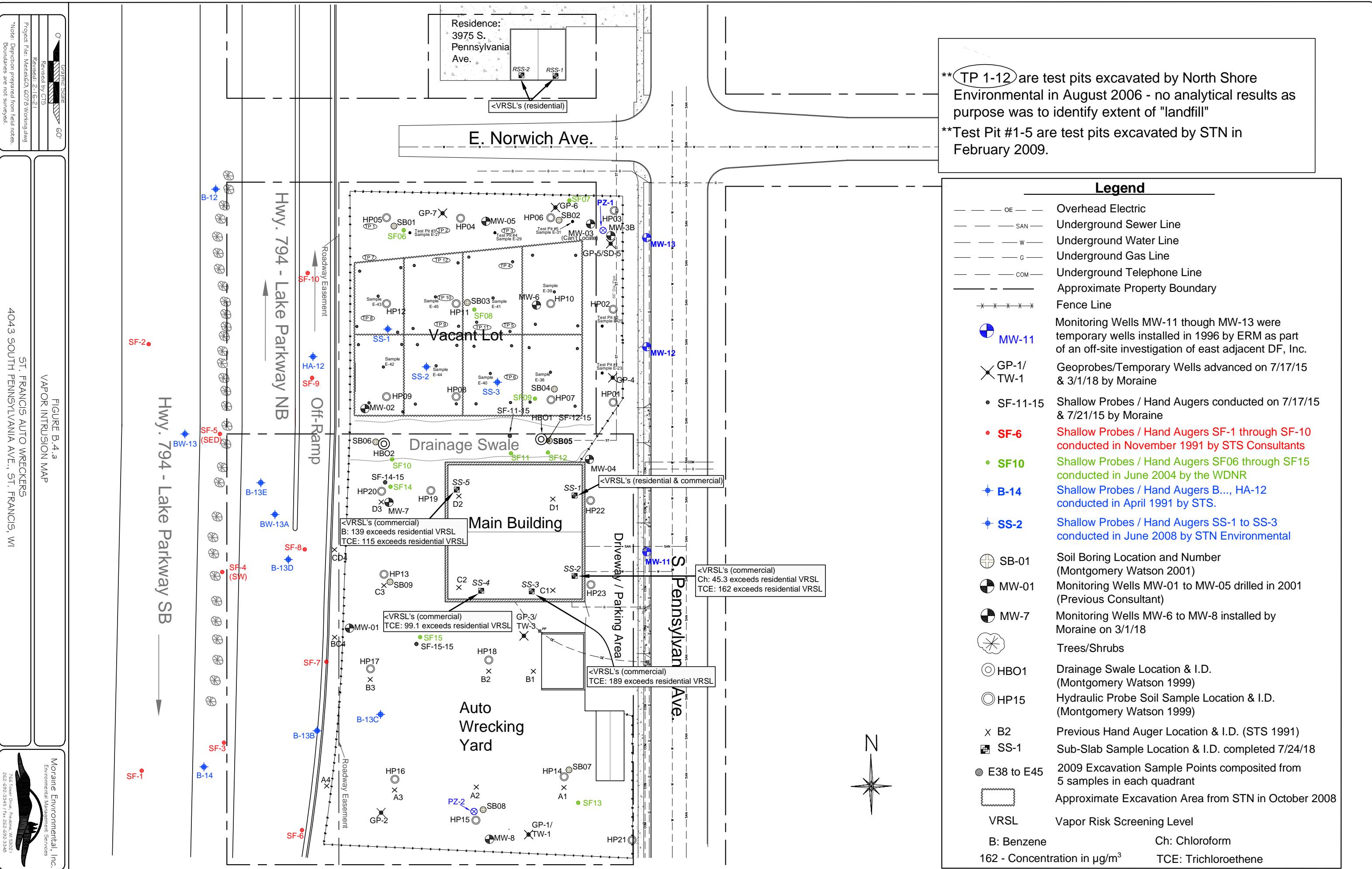


GEOLOGIC CROSS SECTIONS A-A' & B-B'

FIGURE B.3.a.2







ATTACHMENT C

Laboratory Reports

February 10, 2020

Tom Sweet
Moraine Environmental, Inc.
766 Tower Drive
Fredonia, WI 53021

RE: Project: 6078 ST FRANCIS AUTO WRECKERS
Pace Project No.: 40202999

Dear Tom Sweet:

Enclosed are the analytical results for sample(s) received by the laboratory on February 06, 2020. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Steven Mleczko
steve.mleczko@pacelabs.com
(920)469-2436
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 6078 ST FRANCIS AUTO WRECKERS
Pace Project No.: 40202999

Pace Analytical Services Green Bay

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150

Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 6078 ST FRANCIS AUTO WRECKERS
Pace Project No.: 40202999

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40202999001	PZ-1	Water	02/04/20 14:35	02/06/20 09:05
40202999002	PZ-2	Water	02/04/20 14:20	02/06/20 09:05
40202999003	MW-3B	Water	02/04/20 14:40	02/06/20 09:05
40202999004	MW-6	Water	02/04/20 14:30	02/06/20 09:05

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 6078 ST FRANCIS AUTO WRECKERS
Pace Project No.: 40202999

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40202999001	PZ-1	EPA 8260	HNW	64	PASI-G
40202999002	PZ-2	EPA 8260	HNW, LAP	64	PASI-G
40202999003	MW-3B	EPA 8260	HNW	64	PASI-G
40202999004	MW-6	EPA 8260	HNW	64	PASI-G

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: 6078 ST FRANCIS AUTO WRECKERS

Pace Project No.: 40202999

Lab Sample ID	Client Sample ID						
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers	
40202999001	PZ-1						
EPA 8260	tert-Butylbenzene	1.7	ug/L	1.0	02/07/20 13:00		
EPA 8260	cis-1,2-Dichloroethene	0.68J	ug/L	1.0	02/07/20 13:00		
EPA 8260	Toluene	0.18J	ug/L	5.0	02/07/20 13:00		
40202999002	PZ-2						
EPA 8260	Benzene	0.36J	ug/L	1.0	02/07/20 14:26		
EPA 8260	1,1-Dichloroethane	0.56J	ug/L	1.0	02/07/20 14:26		
EPA 8260	1,1-Dichloroethene	0.73J	ug/L	1.0	02/07/20 14:26		
EPA 8260	cis-1,2-Dichloroethene	409	ug/L	4.0	02/10/20 09:53		
EPA 8260	trans-1,2-Dichloroethene	9.1	ug/L	3.6	02/07/20 14:26		
EPA 8260	Vinyl chloride	51.8	ug/L	1.0	02/07/20 14:26		
40202999003	MW-3B						
EPA 8260	tert-Butylbenzene	2.7	ug/L	1.0	02/07/20 13:21		
EPA 8260	cis-1,2-Dichloroethene	22.5	ug/L	1.0	02/07/20 13:21		
EPA 8260	trans-1,2-Dichloroethene	4.2	ug/L	3.6	02/07/20 13:21		
EPA 8260	Isopropylbenzene (Cumene)	1.8J	ug/L	5.0	02/07/20 13:21		
EPA 8260	Tetrachloroethene	15.8	ug/L	1.1	02/07/20 13:21		
EPA 8260	Trichloroethene	4.7	ug/L	1.0	02/07/20 13:21		
EPA 8260	Vinyl chloride	3.1	ug/L	1.0	02/07/20 13:21		
40202999004	MW-6						
EPA 8260	Benzene	3.0	ug/L	1.0	02/07/20 13:43		
EPA 8260	Chlorobenzene	2.2J	ug/L	2.4	02/07/20 13:43		
EPA 8260	1,1-Dichloroethane	1.1	ug/L	1.0	02/07/20 13:43		
EPA 8260	cis-1,2-Dichloroethene	4.1	ug/L	1.0	02/07/20 13:43		
EPA 8260	Toluene	0.23J	ug/L	5.0	02/07/20 13:43		
EPA 8260	Vinyl chloride	6.5	ug/L	1.0	02/07/20 13:43		

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ANALYTICAL RESULTS

Project: 6078 ST FRANCIS AUTO WRECKERS
Pace Project No.: 40202999

Sample: PZ-1	Lab ID: 40202999001	Collected: 02/04/20 14:35	Received: 02/06/20 09:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	<0.25	ug/L	1.0	0.25	1		02/07/20 13:00	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		02/07/20 13:00	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		02/07/20 13:00	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		02/07/20 13:00	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		02/07/20 13:00	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		02/07/20 13:00	74-83-9	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		02/07/20 13:00	104-51-8	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		02/07/20 13:00	135-98-8	
tert-Butylbenzene	1.7	ug/L	1.0	0.30	1		02/07/20 13:00	98-06-6	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		02/07/20 13:00	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		02/07/20 13:00	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		02/07/20 13:00	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		02/07/20 13:00	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		02/07/20 13:00	74-87-3	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		02/07/20 13:00	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		02/07/20 13:00	106-43-4	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		02/07/20 13:00	96-12-8	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		02/07/20 13:00	124-48-1	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		02/07/20 13:00	106-93-4	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		02/07/20 13:00	74-95-3	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		02/07/20 13:00	95-50-1	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		02/07/20 13:00	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		02/07/20 13:00	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		02/07/20 13:00	75-71-8	
1,1-Dichloroethane	<0.27	ug/L	1.0	0.27	1		02/07/20 13:00	75-34-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		02/07/20 13:00	107-06-2	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		02/07/20 13:00	75-35-4	
cis-1,2-Dichloroethene	0.68J	ug/L	1.0	0.27	1		02/07/20 13:00	156-59-2	
trans-1,2-Dichloroethene	<1.1	ug/L	3.6	1.1	1		02/07/20 13:00	156-60-5	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		02/07/20 13:00	78-87-5	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		02/07/20 13:00	142-28-9	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		02/07/20 13:00	594-20-7	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		02/07/20 13:00	563-58-6	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		02/07/20 13:00	10061-01-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		02/07/20 13:00	10061-02-6	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		02/07/20 13:00	108-20-3	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		02/07/20 13:00	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		02/07/20 13:00	87-68-3	
Isopropylbenzene (Cumene)	<0.39	ug/L	5.0	0.39	1		02/07/20 13:00	98-82-8	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		02/07/20 13:00	99-87-6	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		02/07/20 13:00	75-09-2	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		02/07/20 13:00	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		02/07/20 13:00	91-20-3	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		02/07/20 13:00	103-65-1	
Styrene	<0.47	ug/L	1.6	0.47	1		02/07/20 13:00	100-42-5	
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		02/07/20 13:00	630-20-6	

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ANALYTICAL RESULTS

Project: 6078 ST FRANCIS AUTO WRECKERS
Pace Project No.: 40202999

Sample: PZ-1	Lab ID: 40202999001	Collected: 02/04/20 14:35	Received: 02/06/20 09:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		02/07/20 13:00	79-34-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		02/07/20 13:00	127-18-4	
Toluene	0.18J	ug/L	5.0	0.17	1		02/07/20 13:00	108-88-3	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		02/07/20 13:00	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		02/07/20 13:00	120-82-1	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		02/07/20 13:00	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		02/07/20 13:00	79-00-5	
Trichloroethene	<0.26	ug/L	1.0	0.26	1		02/07/20 13:00	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		02/07/20 13:00	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		02/07/20 13:00	96-18-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		02/07/20 13:00	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		02/07/20 13:00	108-67-8	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		02/07/20 13:00	75-01-4	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		02/07/20 13:00	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		02/07/20 13:00	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	92	%	70-130		1		02/07/20 13:00	460-00-4	
Dibromofluoromethane (S)	103	%	70-130		1		02/07/20 13:00	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1		02/07/20 13:00	2037-26-5	

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ANALYTICAL RESULTS

Project: 6078 ST FRANCIS AUTO WRECKERS
Pace Project No.: 40202999

Sample: PZ-2	Lab ID: 40202999002	Collected: 02/04/20 14:20	Received: 02/06/20 09:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	0.36J	ug/L	1.0	0.25	1		02/07/20 14:26	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		02/07/20 14:26	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		02/07/20 14:26	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		02/07/20 14:26	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		02/07/20 14:26	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		02/07/20 14:26	74-83-9	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		02/07/20 14:26	104-51-8	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		02/07/20 14:26	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		02/07/20 14:26	98-06-6	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		02/07/20 14:26	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		02/07/20 14:26	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		02/07/20 14:26	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		02/07/20 14:26	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		02/07/20 14:26	74-87-3	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		02/07/20 14:26	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		02/07/20 14:26	106-43-4	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		02/07/20 14:26	96-12-8	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		02/07/20 14:26	124-48-1	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		02/07/20 14:26	106-93-4	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		02/07/20 14:26	74-95-3	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		02/07/20 14:26	95-50-1	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		02/07/20 14:26	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		02/07/20 14:26	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		02/07/20 14:26	75-71-8	
1,1-Dichloroethane	0.56J	ug/L	1.0	0.27	1		02/07/20 14:26	75-34-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		02/07/20 14:26	107-06-2	
1,1-Dichloroethene	0.73J	ug/L	1.0	0.24	1		02/07/20 14:26	75-35-4	
cis-1,2-Dichloroethene	409	ug/L	4.0	1.1	4		02/10/20 09:53	156-59-2	
trans-1,2-Dichloroethene	9.1	ug/L	3.6	1.1	1		02/07/20 14:26	156-60-5	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		02/07/20 14:26	78-87-5	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		02/07/20 14:26	142-28-9	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		02/07/20 14:26	594-20-7	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		02/07/20 14:26	563-58-6	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		02/07/20 14:26	10061-01-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		02/07/20 14:26	10061-02-6	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		02/07/20 14:26	108-20-3	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		02/07/20 14:26	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		02/07/20 14:26	87-68-3	
Isopropylbenzene (Cumene)	<0.39	ug/L	5.0	0.39	1		02/07/20 14:26	98-82-8	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		02/07/20 14:26	99-87-6	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		02/07/20 14:26	75-09-2	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		02/07/20 14:26	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		02/07/20 14:26	91-20-3	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		02/07/20 14:26	103-65-1	
Styrene	<0.47	ug/L	1.6	0.47	1		02/07/20 14:26	100-42-5	
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		02/07/20 14:26	630-20-6	

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ANALYTICAL RESULTS

Project: 6078 ST FRANCIS AUTO WRECKERS
Pace Project No.: 40202999

Sample: PZ-2	Lab ID: 40202999002	Collected: 02/04/20 14:20	Received: 02/06/20 09:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		02/07/20 14:26	79-34-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		02/07/20 14:26	127-18-4	
Toluene	<0.17	ug/L	5.0	0.17	1		02/07/20 14:26	108-88-3	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		02/07/20 14:26	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		02/07/20 14:26	120-82-1	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		02/07/20 14:26	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		02/07/20 14:26	79-00-5	
Trichloroethene	<0.26	ug/L	1.0	0.26	1		02/07/20 14:26	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		02/07/20 14:26	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		02/07/20 14:26	96-18-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		02/07/20 14:26	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		02/07/20 14:26	108-67-8	
Vinyl chloride	51.8	ug/L	1.0	0.17	1		02/07/20 14:26	75-01-4	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		02/07/20 14:26	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		02/07/20 14:26	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	93	%	70-130		1		02/07/20 14:26	460-00-4	
Dibromofluoromethane (S)	103	%	70-130		1		02/07/20 14:26	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		02/07/20 14:26	2037-26-5	

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ANALYTICAL RESULTS

Project: 6078 ST FRANCIS AUTO WRECKERS

Pace Project No.: 40202999

Sample: MW-3B	Lab ID: 40202999003	Collected: 02/04/20 14:40	Received: 02/06/20 09:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	<0.25	ug/L	1.0	0.25	1		02/07/20 13:21	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		02/07/20 13:21	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		02/07/20 13:21	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		02/07/20 13:21	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		02/07/20 13:21	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		02/07/20 13:21	74-83-9	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		02/07/20 13:21	104-51-8	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		02/07/20 13:21	135-98-8	
tert-Butylbenzene	2.7	ug/L	1.0	0.30	1		02/07/20 13:21	98-06-6	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		02/07/20 13:21	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		02/07/20 13:21	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		02/07/20 13:21	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		02/07/20 13:21	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		02/07/20 13:21	74-87-3	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		02/07/20 13:21	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		02/07/20 13:21	106-43-4	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		02/07/20 13:21	96-12-8	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		02/07/20 13:21	124-48-1	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		02/07/20 13:21	106-93-4	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		02/07/20 13:21	74-95-3	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		02/07/20 13:21	95-50-1	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		02/07/20 13:21	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		02/07/20 13:21	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		02/07/20 13:21	75-71-8	
1,1-Dichloroethane	<0.27	ug/L	1.0	0.27	1		02/07/20 13:21	75-34-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		02/07/20 13:21	107-06-2	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		02/07/20 13:21	75-35-4	
cis-1,2-Dichloroethene	22.5	ug/L	1.0	0.27	1		02/07/20 13:21	156-59-2	
trans-1,2-Dichloroethene	4.2	ug/L	3.6	1.1	1		02/07/20 13:21	156-60-5	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		02/07/20 13:21	78-87-5	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		02/07/20 13:21	142-28-9	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		02/07/20 13:21	594-20-7	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		02/07/20 13:21	563-58-6	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		02/07/20 13:21	10061-01-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		02/07/20 13:21	10061-02-6	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		02/07/20 13:21	108-20-3	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		02/07/20 13:21	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		02/07/20 13:21	87-68-3	
Isopropylbenzene (Cumene)	1.8J	ug/L	5.0	0.39	1		02/07/20 13:21	98-82-8	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		02/07/20 13:21	99-87-6	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		02/07/20 13:21	75-09-2	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		02/07/20 13:21	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		02/07/20 13:21	91-20-3	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		02/07/20 13:21	103-65-1	
Styrene	<0.47	ug/L	1.6	0.47	1		02/07/20 13:21	100-42-5	
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		02/07/20 13:21	630-20-6	

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ANALYTICAL RESULTS

Project: 6078 ST FRANCIS AUTO WRECKERS
Pace Project No.: 40202999

Sample: MW-3B	Lab ID: 40202999003	Collected: 02/04/20 14:40	Received: 02/06/20 09:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		02/07/20 13:21	79-34-5	
Tetrachloroethene	15.8	ug/L	1.1	0.33	1		02/07/20 13:21	127-18-4	
Toluene	<0.17	ug/L	5.0	0.17	1		02/07/20 13:21	108-88-3	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		02/07/20 13:21	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		02/07/20 13:21	120-82-1	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		02/07/20 13:21	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		02/07/20 13:21	79-00-5	
Trichloroethene	4.7	ug/L	1.0	0.26	1		02/07/20 13:21	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		02/07/20 13:21	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		02/07/20 13:21	96-18-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		02/07/20 13:21	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		02/07/20 13:21	108-67-8	
Vinyl chloride	3.1	ug/L	1.0	0.17	1		02/07/20 13:21	75-01-4	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		02/07/20 13:21	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		02/07/20 13:21	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		02/07/20 13:21	460-00-4	
Dibromofluoromethane (S)	101	%	70-130		1		02/07/20 13:21	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		02/07/20 13:21	2037-26-5	

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ANALYTICAL RESULTS

Project: 6078 ST FRANCIS AUTO WRECKERS
Pace Project No.: 40202999

Sample: MW-6	Lab ID: 40202999004	Collected: 02/04/20 14:30	Received: 02/06/20 09:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	3.0	ug/L	1.0	0.25	1		02/07/20 13:43	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		02/07/20 13:43	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		02/07/20 13:43	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		02/07/20 13:43	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		02/07/20 13:43	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		02/07/20 13:43	74-83-9	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		02/07/20 13:43	104-51-8	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		02/07/20 13:43	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		02/07/20 13:43	98-06-6	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		02/07/20 13:43	56-23-5	
Chlorobenzene	2.2J	ug/L	2.4	0.71	1		02/07/20 13:43	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		02/07/20 13:43	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		02/07/20 13:43	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		02/07/20 13:43	74-87-3	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		02/07/20 13:43	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		02/07/20 13:43	106-43-4	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		02/07/20 13:43	96-12-8	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		02/07/20 13:43	124-48-1	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		02/07/20 13:43	106-93-4	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		02/07/20 13:43	74-95-3	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		02/07/20 13:43	95-50-1	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		02/07/20 13:43	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		02/07/20 13:43	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		02/07/20 13:43	75-71-8	
1,1-Dichloroethane	1.1	ug/L	1.0	0.27	1		02/07/20 13:43	75-34-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		02/07/20 13:43	107-06-2	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		02/07/20 13:43	75-35-4	
cis-1,2-Dichloroethene	4.1	ug/L	1.0	0.27	1		02/07/20 13:43	156-59-2	
trans-1,2-Dichloroethene	<1.1	ug/L	3.6	1.1	1		02/07/20 13:43	156-60-5	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		02/07/20 13:43	78-87-5	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		02/07/20 13:43	142-28-9	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		02/07/20 13:43	594-20-7	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		02/07/20 13:43	563-58-6	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		02/07/20 13:43	10061-01-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		02/07/20 13:43	10061-02-6	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		02/07/20 13:43	108-20-3	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		02/07/20 13:43	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		02/07/20 13:43	87-68-3	
Isopropylbenzene (Cumene)	<0.39	ug/L	5.0	0.39	1		02/07/20 13:43	98-82-8	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		02/07/20 13:43	99-87-6	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		02/07/20 13:43	75-09-2	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		02/07/20 13:43	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		02/07/20 13:43	91-20-3	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		02/07/20 13:43	103-65-1	
Styrene	<0.47	ug/L	1.6	0.47	1		02/07/20 13:43	100-42-5	
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		02/07/20 13:43	630-20-6	

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ANALYTICAL RESULTS

Project: 6078 ST FRANCIS AUTO WRECKERS
Pace Project No.: 40202999

Sample: MW-6	Lab ID: 40202999004	Collected: 02/04/20 14:30	Received: 02/06/20 09:05	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		02/07/20 13:43	79-34-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		02/07/20 13:43	127-18-4	
Toluene	0.23J	ug/L	5.0	0.17	1		02/07/20 13:43	108-88-3	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		02/07/20 13:43	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		02/07/20 13:43	120-82-1	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		02/07/20 13:43	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		02/07/20 13:43	79-00-5	
Trichloroethene	<0.26	ug/L	1.0	0.26	1		02/07/20 13:43	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		02/07/20 13:43	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		02/07/20 13:43	96-18-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		02/07/20 13:43	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		02/07/20 13:43	108-67-8	
Vinyl chloride	6.5	ug/L	1.0	0.17	1		02/07/20 13:43	75-01-4	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		02/07/20 13:43	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		02/07/20 13:43	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	93	%	70-130		1		02/07/20 13:43	460-00-4	
Dibromofluoromethane (S)	105	%	70-130		1		02/07/20 13:43	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1		02/07/20 13:43	2037-26-5	

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QUALITY CONTROL DATA

Project: 6078 ST FRANCIS AUTO WRECKERS

Pace Project No.: 40202999

QC Batch:	347224	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV
Associated Lab Samples:	40202999001, 40202999002, 40202999003, 40202999004		

METHOD BLANK: 2013830 Matrix: Water

Associated Lab Samples: 40202999001, 40202999002, 40202999003, 40202999004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.27	1.0	02/07/20 08:00	
1,1,1-Trichloroethane	ug/L	<0.24	1.0	02/07/20 08:00	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	1.0	02/07/20 08:00	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	02/07/20 08:00	
1,1-Dichloroethane	ug/L	<0.27	1.0	02/07/20 08:00	
1,1-Dichloroethene	ug/L	<0.24	1.0	02/07/20 08:00	
1,1-Dichloropropene	ug/L	<0.54	1.8	02/07/20 08:00	
1,2,3-Trichlorobenzene	ug/L	<0.63	5.0	02/07/20 08:00	
1,2,3-Trichloropropane	ug/L	<0.59	5.0	02/07/20 08:00	
1,2,4-Trichlorobenzene	ug/L	<0.95	5.0	02/07/20 08:00	
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	02/07/20 08:00	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	02/07/20 08:00	
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	02/07/20 08:00	
1,2-Dichlorobenzene	ug/L	<0.71	2.4	02/07/20 08:00	
1,2-Dichloroethane	ug/L	<0.28	1.0	02/07/20 08:00	
1,2-Dichloropropane	ug/L	<0.28	1.0	02/07/20 08:00	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	02/07/20 08:00	
1,3-Dichlorobenzene	ug/L	<0.63	2.1	02/07/20 08:00	
1,3-Dichloropropane	ug/L	<0.83	2.8	02/07/20 08:00	
1,4-Dichlorobenzene	ug/L	<0.94	3.1	02/07/20 08:00	
2,2-Dichloropropane	ug/L	<2.3	7.6	02/07/20 08:00	
2-Chlorotoluene	ug/L	<0.93	5.0	02/07/20 08:00	
4-Chlorotoluene	ug/L	<0.76	2.5	02/07/20 08:00	
Benzene	ug/L	<0.25	1.0	02/07/20 08:00	
Bromobenzene	ug/L	<0.24	1.0	02/07/20 08:00	
Bromochloromethane	ug/L	<0.36	5.0	02/07/20 08:00	
Bromodichloromethane	ug/L	<0.36	1.2	02/07/20 08:00	
Bromoform	ug/L	<4.0	13.2	02/07/20 08:00	
Bromomethane	ug/L	<0.97	5.0	02/07/20 08:00	
Carbon tetrachloride	ug/L	<0.17	1.0	02/07/20 08:00	
Chlorobenzene	ug/L	<0.71	2.4	02/07/20 08:00	
Chloroethane	ug/L	<1.3	5.0	02/07/20 08:00	
Chloroform	ug/L	<1.3	5.0	02/07/20 08:00	
Chloromethane	ug/L	<2.2	7.3	02/07/20 08:00	
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	02/07/20 08:00	
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	02/07/20 08:00	
Dibromochloromethane	ug/L	<2.6	8.7	02/07/20 08:00	
Dibromomethane	ug/L	<0.94	3.1	02/07/20 08:00	
Dichlorodifluoromethane	ug/L	<0.50	5.0	02/07/20 08:00	
Diisopropyl ether	ug/L	<1.9	6.3	02/07/20 08:00	
Ethylbenzene	ug/L	<0.22	1.0	02/07/20 08:00	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: 6078 ST FRANCIS AUTO WRECKERS

Pace Project No.: 40202999

METHOD BLANK: 2013830

Matrix: Water

Associated Lab Samples: 40202999001, 40202999002, 40202999003, 40202999004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<1.2	5.0	02/07/20 08:00	
Isopropylbenzene (Cumene)	ug/L	<0.39	5.0	02/07/20 08:00	
m&p-Xylene	ug/L	<0.47	2.0	02/07/20 08:00	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	02/07/20 08:00	
Methylene Chloride	ug/L	<0.58	5.0	02/07/20 08:00	
n-Butylbenzene	ug/L	<0.71	2.4	02/07/20 08:00	
n-Propylbenzene	ug/L	<0.81	5.0	02/07/20 08:00	
Naphthalene	ug/L	<1.2	5.0	02/07/20 08:00	
o-Xylene	ug/L	<0.26	1.0	02/07/20 08:00	
p-Isopropyltoluene	ug/L	<0.80	2.7	02/07/20 08:00	
sec-Butylbenzene	ug/L	<0.85	5.0	02/07/20 08:00	
Styrene	ug/L	<0.47	1.6	02/07/20 08:00	
tert-Butylbenzene	ug/L	<0.30	1.0	02/07/20 08:00	
Tetrachloroethene	ug/L	<0.33	1.1	02/07/20 08:00	
Toluene	ug/L	<0.17	5.0	02/07/20 08:00	
trans-1,2-Dichloroethene	ug/L	<1.1	3.6	02/07/20 08:00	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	02/07/20 08:00	
Trichloroethene	ug/L	<0.26	1.0	02/07/20 08:00	
Trichlorofluoromethane	ug/L	<0.21	1.0	02/07/20 08:00	
Vinyl chloride	ug/L	<0.17	1.0	02/07/20 08:00	
4-Bromofluorobenzene (S)	%	92	70-130	02/07/20 08:00	
Dibromofluoromethane (S)	%	101	70-130	02/07/20 08:00	
Toluene-d8 (S)	%	100	70-130	02/07/20 08:00	

LABORATORY CONTROL SAMPLE: 2013831

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	55.4	111	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	52.2	104	70-130	
1,1,2-Trichloroethane	ug/L	50	53.5	107	70-130	
1,1-Dichloroethane	ug/L	50	53.4	107	73-150	
1,1-Dichloroethene	ug/L	50	52.3	105	73-138	
1,2,4-Trichlorobenzene	ug/L	50	51.4	103	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	48.4	97	64-129	
1,2-Dibromoethane (EDB)	ug/L	50	50.6	101	70-130	
1,2-Dichlorobenzene	ug/L	50	50.4	101	70-130	
1,2-Dichloroethane	ug/L	50	53.6	107	75-140	
1,2-Dichloropropane	ug/L	50	56.3	113	73-135	
1,3-Dichlorobenzene	ug/L	50	49.9	100	70-130	
1,4-Dichlorobenzene	ug/L	50	49.6	99	70-130	
Benzene	ug/L	50	55.0	110	70-130	
Bromodichloromethane	ug/L	50	54.1	108	70-130	
Bromoform	ug/L	50	57.7	115	68-129	
Bromomethane	ug/L	50	34.2	68	18-159	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 6078 ST FRANCIS AUTO WRECKERS
Pace Project No.: 40202999

LABORATORY CONTROL SAMPLE: 2013831

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/L	50	51.5	103	70-130	
Chlorobenzene	ug/L	50	51.4	103	70-130	
Chloroethane	ug/L	50	55.1	110	53-147	
Chloroform	ug/L	50	54.5	109	74-136	
Chloromethane	ug/L	50	42.8	86	29-115	
cis-1,2-Dichloroethene	ug/L	50	52.2	104	70-130	
cis-1,3-Dichloropropene	ug/L	50	53.0	106	70-130	
Dibromochloromethane	ug/L	50	54.5	109	70-130	
Dichlorodifluoromethane	ug/L	50	42.1	84	10-130	
Ethylbenzene	ug/L	50	54.2	108	80-124	
Isopropylbenzene (Cumene)	ug/L	50	50.5	101	70-130	
m&p-Xylene	ug/L	100	109	109	70-130	
Methyl-tert-butyl ether	ug/L	50	49.4	99	54-137	
Methylene Chloride	ug/L	50	53.7	107	73-138	
o-Xylene	ug/L	50	54.2	108	70-130	
Styrene	ug/L	50	50.3	101	70-130	
Tetrachloroethene	ug/L	50	51.1	102	70-130	
Toluene	ug/L	50	51.9	104	80-126	
trans-1,2-Dichloroethene	ug/L	50	51.2	102	73-145	
trans-1,3-Dichloropropene	ug/L	50	47.9	96	70-130	
Trichloroethene	ug/L	50	54.4	109	70-130	
Trichlorofluoromethane	ug/L	50	56.3	113	76-147	
Vinyl chloride	ug/L	50	46.4	93	51-120	
4-Bromofluorobenzene (S)	%			100	70-130	
Dibromofluoromethane (S)	%			105	70-130	
Toluene-d8 (S)	%			98	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 6078 ST FRANCIS AUTO WRECKERS
Pace Project No.: 40202999

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-G Pace Analytical Services - Green Bay

WORKORDER QUALIFIERS

WO: 40202999

[1] Revised - lab - revised report to correct result for n-butylbenzene for sample -003 per lab. SVM 2/10/2020

REPORT OF LABORATORY ANALYSIS

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 6078 ST FRANCIS AUTO WRECKERS
 Pace Project No.: 40202999

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40202999001	PZ-1	EPA 8260	347224		
40202999002	PZ-2	EPA 8260	347224		
40202999003	MW-3B	EPA 8260	347224		
40202999004	MW-6	EPA 8260	347224		

REPORT OF LABORATORY ANALYSIS

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(Please Print Clearly)

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

400000099

Company Name:	Moraine Environmental
Branch/Location:	Frederick
Project Contact:	Ton Sweet
Phone:	262-692-3345
Project Number:	6078
Project Name:	St Francis Park Workers
Project State:	WI
Sampled By (Print):	Dave Leman
Sampled By (Sign):	<i>Dave Leman</i>
PO #:	

Pace Analytical®
www.pacealabs.com

CHAIN OF CUSTODY

*Preservation Codes	
A=None	B=HCl
C=H ₂ SO ₄	D=HNO ₃
E=DI Water	F=Methanol
G=NaOH	H=Sodium Bisulfate Solution
I=Sodium Thiosulfate	J=Other

Data Package Options	MS/MSD	Matrix Codes
<input type="checkbox"/> (billable) EPA Level III	<input type="checkbox"/> On your sample	A = Air B = Biota C = Charcoal O = Oil S = Soil SI = Sludge
<input type="checkbox"/> EPA Level IV	<input type="checkbox"/> NOT needed on your sample	V = Water DW = Drinking Water GW = Ground Water SW = Surface Water WW = Waste Water WP = Wipe
PACE LAB #	CLIENT FIELD ID	Analyses Requested
DATE	TIME	Matrix
001	PZ-1	7/1/20 1435 GW X
002	PZ-2	7/1/20 1420 GW X
003	MW-3B	7/1/20 1440 GW X
004	MW-6	7/4/20 1430 GW X

Y/N	N	Analyses Requested
PICK LETTER	B	VOCS
CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
<i>✓ ✓</i>		
Invoice To Phone:		
Invoice To Address:		
Mail To Company:		
Mail To Contact:		
Invoice To Contact:		
Invoice To Company:		
Invoice To Address:		

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)	Reinquished By: <i>Dave Leman 7/5/20 2:30</i>	Received By: <i>Many Tami 7/5/20 2:30</i>	PACE Project No. <i>400000099</i>
Date Needed:	Date/Time: <i>7/5/20 1450</i>	Date/Time: <i>7/5/20 1450</i>	Received By: <i>Many Tami 7/5/20 2:30</i>
Transmit Prelim Rush Results by (complete what you want):	Reinquished By: <i>Many Tami 7/5/20 1450</i>	Received By: <i>Many Tami 7/5/20 2:30</i>	Received By: <i>Many Tami 7/5/20 2:30</i>
Email #1:	Date/Time: <i>7/5/20 0905</i>	Date/Time: <i>7/5/20 0905</i>	Received By: <i>Many Tami 7/5/20 2:30</i>
Email #2:	Date/Time: <i>7/5/20 0905</i>	Date/Time: <i>7/5/20 0905</i>	Received By: <i>Many Tami 7/5/20 2:30</i>
Telephone:	Date/Time: <i>7/5/20 0905</i>	Date/Time: <i>7/5/20 0905</i>	Received By: <i>Many Tami 7/5/20 2:30</i>
Fax:	Date/Time: <i>7/5/20 0905</i>	Date/Time: <i>7/5/20 0905</i>	Received By: <i>Many Tami 7/5/20 2:30</i>
Samples on HOLD are subject to special pricing and release of liability	Relinquished By: <i>Dave Leman</i>	Received By: <i>Many Tami</i>	Received By: <i>Many Tami</i>
	Date/Time: <i>7/5/20 0905</i>	Date/Time: <i>7/5/20 0905</i>	Date/Time: <i>7/5/20 0905</i>

Sample Preservation Receipt Form

Client Name: Agar Thermo

Project # 4020099

All containers needing preservation have been checked and noted below. Yes No X

Lab Lot# of pH paper:

Lab Std #ID of preservation (if pH adjusted):

Initial when completed:

Date/ Time:

Pace Lab #	Glass		Plastic		Vials		Jars		General		VOA Vials (>6mm) *	H2SO4 pH ≤	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤	pH after adjusted	Volume (mL)								
	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3B	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU	SP5T	ZPLC
001																									
002																									
003																									
004																									
005																									
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010																									
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014																									
015																									
016																									
017																									
018																									
019																									
020																									

Exceptions to preservation check: VOA Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other.

Headspace in VOA Vials (>6mm): Yes X No/N/A *If yes look in headspace column

AG1U	1 liter amber glass	BPIU	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber HCl	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCl		
AG5U	100 mL amber glass unpres	BP3B	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4	GN:			



Document Name:
Sample Condition Upon Receipt (SCUR)
Document No.:
F-GB-C-031-Rev.07

Document Revised: 25Apr2018
Issuing Authority:
Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #:

Client Name: MORNING ENVIRONMENTAL

Courier: CS Logistics FedEx Speedee UPS Waltco

Client Pace Other: _____

Tracking #:

WO# : 40202999



40202999

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Custody Seal on Samples Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used SR - 84 Type of Ice: Wet Blue Dry None Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 3.6 I/Corr: 3.5

Temp Blank Present: yes no

Biological Tissue is Frozen: yes no

Temp should be above freezing to 6°C.

Biota Samples may be received at ≤ 0°C.

Person examining contents:

Date: 2-6-20

Initials: BL

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:		8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11. <u>2-6-20 BL</u>
Sample Labels match COC:	<u>2-6-20</u> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12. <u>No time S samples 001-004.</u>
-Includes date/time/ID/Analysis Matrix:		
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

If checked, see attached form for additional comments

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: UW Date: 2-6-20



Environment Testing TestAmerica



ANALYTICAL REPORT

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

Laboratory Job ID: 320-58353-1

Client Project/Site: St. Francis Auto Wreckers - 6078

For:

Moraine Environmental Inc
766 Tower Dr
Fredonia, Wisconsin 53021

Attn: Dave Lennon

Authorized for release by:

2/18/2020 6:49:33 AM

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

LINKS

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results through

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The
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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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Definitions/Glossary

Client: Moraine Environmental Inc
Project/Site: St. Francis Auto Wreckers - 6078

Job ID: 320-58353-1

Qualifiers

LCMS	
Qualifier	Qualifier Description
*	Isotope Dilution analyte is outside acceptance limits.
B	Compound was found in the blank and sample.
J	Reported value was between the limit of detection and the limit of quantitation.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
D	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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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)

Case Narrative

Client: Moraine Environmental Inc
Project/Site: St. Francis Auto Wreckers - 6078

Job ID: 320-58353-1

Job ID: 320-58353-1

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Job Narrative 320-58353-1

Comments

No additional comments.

Receipt

The samples were received on 2/5/2020 9:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8° C.

Receipt Exceptions

The container label for the following samples did not match the information listed on the Chain-of-Custody (COC): PZ-1 (320-58353-1), MW-3B (320-58353-2), MW-6 (320-58353-3), MW-2 (320-58353-4) and Field Blank (320-58353-5). The container labels for all samples, did not have the sample time.

LCMS

Method 537 (modified): Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for M2-4:2 FTS and M2-6:2 FTS in the following samples: PZ-1 (320-58353-1), MW-3B (320-58353-2) and MW-6 (320-58353-3). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): Results for samples MW-6 (320-58353-3) were reported from the analysis of a diluted extract due to high concentration of the target analytes in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits.

Method 537 (modified): Results for samples PZ-1 (320-58353-1) and MW-3B (320-58353-2) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The samples were outside acceptance criteria. This ISTD does not correspond to any of the requested target compounds; therefore, the data have been reported.

Method 537 (modified): Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for M2-4:2 FTS, M2-6:2 FTS, and M2-8:2 FTS in the following sample: MW-2 (320-58353-4). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): Results for sample MW-2 (320-58353-4) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

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

Organic Prep

Method 3535: The following samples contain brown sediments prior to extraction: PZ-1 (320-58353-1), MW-6 (320-58353-3) and MW-2 (320-58353-4). 3535_PFC Waters 320-355469

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-355469. 3535_PFC Waters 320-355469

Method 3535: The following sample came in a 1L bottle instead of the 250mL: Field Blank (320-58353-5). Sample was decanted to a 250mL bottle prior to extraction. 3535_PFC Waters 320-355469

Method 3535: The following samples contained non-settleable particulate matter which clogged the solid phase extraction column: PZ-1 (320-58353-1) and MW-6 (320-58353-3). 3535_PFC Waters 320-355469

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

Detection Summary

Client: Moraine Environmental Inc
 Project/Site: St. Francis Auto Wreckers - 6078

Job ID: 320-58353-1

Client Sample ID: PZ-1

Lab Sample ID: 320-58353-1

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	62		1.7	0.41	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	71		1.7	0.48	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	57		1.7	0.21	ng/L	1		537 (modified)	Total/NA
Perfluoroctanoic acid (PFOA)	290		1.7	0.71	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.1	J	1.7	0.22	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	27		1.7	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	35		1.7	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	63	B	1.7	0.14	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	11		1.7	0.16	ng/L	1		537 (modified)	Total/NA
Perfluoroctanesulfonamide (FOSA)	0.46	J	1.7	0.29	ng/L	1		537 (modified)	Total/NA
N-ethylperfluoroctanesulfonamidoacetic acid (NEtFOSAA)	110		17	1.6	ng/L	1		537 (modified)	Total/NA
Perfluorobutanoic acid (PFBA) - DL	93	B	17	2.9	ng/L	10		537 (modified)	Total/NA
Perfluoroctanesulfonic acid (PFOS) - DL	360		17	4.5	ng/L	10		537 (modified)	Total/NA

Client Sample ID: MW-3B

Lab Sample ID: 320-58353-2

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	27	B	1.7	0.30	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	35		1.7	0.42	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	37		1.7	0.50	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	44		1.7	0.22	ng/L	1		537 (modified)	Total/NA
Perfluoroctanoic acid (PFOA)	49		1.7	0.74	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.52	J	1.7	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.9		1.7	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	1.6	J	1.7	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	7.4	B	1.7	0.15	ng/L	1		537 (modified)	Total/NA
Perfluoroctanesulfonic acid (PFOS)	22		1.7	0.47	ng/L	1		537 (modified)	Total/NA
Perfluoroctanesulfonamide (FOSA)	0.82	J	1.7	0.30	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-6

Lab Sample ID: 320-58353-3

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	73		1.7	0.41	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	82		1.7	0.49	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	63		1.7	0.21	ng/L	1		537 (modified)	Total/NA
Perfluoroctanoic acid (PFOA)	250		1.7	0.72	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	2.3		1.7	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	24		1.7	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	38		1.7	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	85	B	1.7	0.14	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	12		1.7	0.16	ng/L	1		537 (modified)	Total/NA
Perfluoroctanesulfonic acid (PFOS)	260		1.7	0.46	ng/L	1		537 (modified)	Total/NA
Perfluoroctanesulfonamide (FOSA)	0.50	J	1.7	0.30	ng/L	1		537 (modified)	Total/NA
Perfluorobutanoic acid (PFBA) - DL	75	B	17	3.0	ng/L	10		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

Detection Summary

Client: Moraine Environmental Inc
 Project/Site: St. Francis Auto Wreckers - 6078

Job ID: 320-58353-1

Client Sample ID: MW-2

Lab Sample ID: 320-58353-4

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	61	B	1.6	0.29	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	65		1.6	0.40	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	73		1.6	0.48	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	51		1.6	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	4.5		1.6	0.22	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.38	J	1.6	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	5.8		1.6	0.16	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PPPeS)	11		1.6	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	44	B	1.6	0.14	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	6.5		1.6	0.16	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	300		1.6	0.44	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	1.0	J	1.6	0.29	ng/L	1		537 (modified)	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	7.3	J	16	1.6	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA) - DL	640		16	7.0	ng/L	10		537 (modified)	Total/NA

Client Sample ID: Field Blank

Lab Sample ID: 320-58353-5

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.49	J B	1.9	0.33	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.34	J B	1.9	0.16	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	0.47	J	1.9	0.33	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

Client Sample Results

Client: Moraine Environmental Inc
Project/Site: St. Francis Auto Wreckers - 6078

Job ID: 320-58353-1

Client Sample ID: PZ-1

Date Collected: 02/04/20 14:35

Date Received: 02/05/20 09:10

Lab Sample ID: 320-58353-1

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	62		1.7	0.41	ng/L	02/06/20 12:41	02/09/20 11:14		1
Perfluorohexanoic acid (PFHxA)	71		1.7	0.48	ng/L	02/06/20 12:41	02/09/20 11:14		1
Perfluoroheptanoic acid (PFHpA)	57		1.7	0.21	ng/L	02/06/20 12:41	02/09/20 11:14		1
Perfluorooctanoic acid (PFOA)	290		1.7	0.71	ng/L	02/06/20 12:41	02/09/20 11:14		1
Perfluorononanoic acid (PFNA)	1.1	J	1.7	0.22	ng/L	02/06/20 12:41	02/09/20 11:14		1
Perfluorodecanoic acid (PFDA)	<0.26		1.7	0.26	ng/L	02/06/20 12:41	02/09/20 11:14		1
Perfluoroundecanoic acid (PFUnA)	<0.91		1.7	0.91	ng/L	02/06/20 12:41	02/09/20 11:14		1
Perfluorododecanoic acid (PFDoA)	<0.46		1.7	0.46	ng/L	02/06/20 12:41	02/09/20 11:14		1
Perfluorotridecanoic acid (PFTriA)	<1.1		1.7	1.1	ng/L	02/06/20 12:41	02/09/20 11:14		1
Perfluorotetradecanoic acid (PFTeA)	<0.24		1.7	0.24	ng/L	02/06/20 12:41	02/09/20 11:14		1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.74		1.7	0.74	ng/L	02/06/20 12:41	02/09/20 11:14		1
Perfluorobutanesulfonic acid (PFBS)	27		1.7	0.17	ng/L	02/06/20 12:41	02/09/20 11:14		1
Perfluoro-n-octadecanoic acid (PFODA)	<0.38		1.7	0.38	ng/L	02/06/20 12:41	02/09/20 11:14		1
Perfluoropentanesulfonic acid (PFPeS)	35		1.7	0.25	ng/L	02/06/20 12:41	02/09/20 11:14		1
Perfluorohexanesulfonic acid (PFHxS)	63	B	1.7	0.14	ng/L	02/06/20 12:41	02/09/20 11:14		1
Perfluoroheptanesulfonic Acid (PFHpS)	11		1.7	0.16	ng/L	02/06/20 12:41	02/09/20 11:14		1
Perfluorononanesulfonic acid (PFNS)	<0.13		1.7	0.13	ng/L	02/06/20 12:41	02/09/20 11:14		1
Perfluorodecanesulfonic acid (PFDS)	<0.27		1.7	0.27	ng/L	02/06/20 12:41	02/09/20 11:14		1
Perfluoroctanesulfonamide (FOSA)	0.46	J	1.7	0.29	ng/L	02/06/20 12:41	02/09/20 11:14		1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.6		17	2.6	ng/L	02/06/20 12:41	02/09/20 11:14		1
N-ethylperfluoroctanesulfonamidoacetic acid (NEtFOSAA)	110		17	1.6	ng/L	02/06/20 12:41	02/09/20 11:14		1
NEtFOSA	<0.72		1.7	0.72	ng/L	02/06/20 12:41	02/09/20 11:14		1
NMeFOSA	<0.36		1.7	0.36	ng/L	02/06/20 12:41	02/09/20 11:14		1
NMeFOSE	<1.2		3.3	1.2	ng/L	02/06/20 12:41	02/09/20 11:14		1
NEtFOSE	<0.71		1.7	0.71	ng/L	02/06/20 12:41	02/09/20 11:14		1
Perfluorododecanesulfonic acid (PFDoS)	<0.37		1.7	0.37	ng/L	02/06/20 12:41	02/09/20 11:14		1
F-53B Major	<0.20		1.7	0.20	ng/L	02/06/20 12:41	02/09/20 11:14		1
HFPO-DA (GenX)	<1.2		3.3	1.2	ng/L	02/06/20 12:41	02/09/20 11:14		1
F-53B Minor	<0.27		1.7	0.27	ng/L	02/06/20 12:41	02/09/20 11:14		1
DONA	<0.15		1.7	0.15	ng/L	02/06/20 12:41	02/09/20 11:14		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C5 PFPeA	37		25 - 150			02/06/20 12:41	02/09/20 11:14		1
13C2 PFHxA	63		25 - 150			02/06/20 12:41	02/09/20 11:14		1
13C4 PFHpA	74		25 - 150			02/06/20 12:41	02/09/20 11:14		1
13C4 PFOA	75		25 - 150			02/06/20 12:41	02/09/20 11:14		1
13C5 PFNA	90		25 - 150			02/06/20 12:41	02/09/20 11:14		1
13C2 PFDA	96		25 - 150			02/06/20 12:41	02/09/20 11:14		1
13C2 PFUnA	91		25 - 150			02/06/20 12:41	02/09/20 11:14		1
13C2 PFDoA	85		25 - 150			02/06/20 12:41	02/09/20 11:14		1
13C2 PFTeDA	82		25 - 150			02/06/20 12:41	02/09/20 11:14		1
13C3 PFBS	70		25 - 150			02/06/20 12:41	02/09/20 11:14		1
18O2 PFHxA	92		25 - 150			02/06/20 12:41	02/09/20 11:14		1

Eurofins TestAmerica, Sacramento

Client Sample Results

Client: Moraine Environmental Inc
Project/Site: St. Francis Auto Wreckers - 6078

Job ID: 320-58353-1

Client Sample ID: PZ-1

Date Collected: 02/04/20 14:35

Date Received: 02/05/20 09:10

Lab Sample ID: 320-58353-1

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	80		25 - 150	02/06/20 12:41	02/09/20 11:14	1
d3-NMeFOSAA	124		25 - 150	02/06/20 12:41	02/09/20 11:14	1
d5-NEtFOSAA	117		25 - 150	02/06/20 12:41	02/09/20 11:14	1
d9-N-EtFOSE-M	39		10 - 120	02/06/20 12:41	02/09/20 11:14	1
d-N-MeFOSA-M	46		20 - 150	02/06/20 12:41	02/09/20 11:14	1
d7-N-MeFOSE-M	37		10 - 120	02/06/20 12:41	02/09/20 11:14	1
d-N-EtFOSA-M	37		20 - 150	02/06/20 12:41	02/09/20 11:14	1
13C2 PFHxDA	79		25 - 150	02/06/20 12:41	02/09/20 11:14	1
13C3 HFPO-DA	41		25 - 150	02/06/20 12:41	02/09/20 11:14	1

Method: 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	93	B	17	2.9	ng/L	02/06/20 12:41	02/10/20 08:22	10	11
Perfluorooctanesulfonic acid (PFOS)	360		17	4.5	ng/L	02/06/20 12:41	02/10/20 08:22	10	12
4:2 FTS	<43		170	43	ng/L	02/06/20 12:41	02/10/20 08:22	10	13
6:2 FTS	<17		170	17	ng/L	02/06/20 12:41	02/10/20 08:22	10	13
8:2 FTS	<17		170	17	ng/L	02/06/20 12:41	02/10/20 08:22	10	13
10:2 FTS	<1.6		17	1.6	ng/L	02/06/20 12:41	02/10/20 08:22	10	14
Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
13C4 PFBA	46		25 - 150	02/06/20 12:41	02/10/20 08:22	10			
13C4 PFOS	73		25 - 150	02/06/20 12:41	02/10/20 08:22	10			
M2-6:2 FTS	171	*	25 - 150	02/06/20 12:41	02/10/20 08:22	10			
M2-8:2 FTS	113		25 - 150	02/06/20 12:41	02/10/20 08:22	10			
M2-4:2 FTS	167	*	25 - 150	02/06/20 12:41	02/10/20 08:22	10			

Client Sample Results

Client: Moraine Environmental Inc
Project/Site: St. Francis Auto Wreckers - 6078

Job ID: 320-58353-1

Client Sample ID: MW-3B

Date Collected: 02/04/20 14:40

Date Received: 02/05/20 09:10

Lab Sample ID: 320-58353-2

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	27	B	1.7	0.30	ng/L	02/06/20 12:41	02/09/20 11:23		1
Perfluoropentanoic acid (PFPeA)	35		1.7	0.42	ng/L	02/06/20 12:41	02/09/20 11:23		1
Perfluorohexanoic acid (PFHxA)	37		1.7	0.50	ng/L	02/06/20 12:41	02/09/20 11:23		1
Perfluoroheptanoic acid (PFHpA)	44		1.7	0.22	ng/L	02/06/20 12:41	02/09/20 11:23		1
Perfluorooctanoic acid (PFOA)	49		1.7	0.74	ng/L	02/06/20 12:41	02/09/20 11:23		1
Perfluorononanoic acid (PFNA)	0.52	J	1.7	0.23	ng/L	02/06/20 12:41	02/09/20 11:23		1
Perfluorodecanoic acid (PFDA)	<0.27		1.7	0.27	ng/L	02/06/20 12:41	02/09/20 11:23		1
Perfluoroundecanoic acid (PFUnA)	<0.95		1.7	0.95	ng/L	02/06/20 12:41	02/09/20 11:23		1
Perfluorododecanoic acid (PFDoA)	<0.48		1.7	0.48	ng/L	02/06/20 12:41	02/09/20 11:23		1
Perfluorotridecanoic acid (PFTriA)	<1.1		1.7	1.1	ng/L	02/06/20 12:41	02/09/20 11:23		1
Perfluorotetradecanoic acid (PFTeA)	<0.25		1.7	0.25	ng/L	02/06/20 12:41	02/09/20 11:23		1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.77		1.7	0.77	ng/L	02/06/20 12:41	02/09/20 11:23		1
Perfluorobutanesulfonic acid (PFBS)	2.9		1.7	0.17	ng/L	02/06/20 12:41	02/09/20 11:23		1
Perfluoro-n-octadecanoic acid (PFODA)	<0.40		1.7	0.40	ng/L	02/06/20 12:41	02/09/20 11:23		1
Perfluoropentanesulfonic acid (PFPeS)	1.6	J	1.7	0.26	ng/L	02/06/20 12:41	02/09/20 11:23		1
Perfluorohexanesulfonic acid (PFHxS)	7.4	B	1.7	0.15	ng/L	02/06/20 12:41	02/09/20 11:23		1
Perfluoroheptanesulfonic Acid (PFHpS)	<0.16		1.7	0.16	ng/L	02/06/20 12:41	02/09/20 11:23		1
Perfluorooctanesulfonic acid (PFOS)	22		1.7	0.47	ng/L	02/06/20 12:41	02/09/20 11:23		1
Perfluorononanesulfonic acid (PFNS)	<0.14		1.7	0.14	ng/L	02/06/20 12:41	02/09/20 11:23		1
Perfluorodecanesulfonic acid (PFDS)	<0.28		1.7	0.28	ng/L	02/06/20 12:41	02/09/20 11:23		1
Perfluorooctanesulfonamide (FOSA)	0.82	J	1.7	0.30	ng/L	02/06/20 12:41	02/09/20 11:23		1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.7		17	2.7	ng/L	02/06/20 12:41	02/09/20 11:23		1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1.6		17	1.6	ng/L	02/06/20 12:41	02/09/20 11:23		1
NEtFOSA	<0.75		1.7	0.75	ng/L	02/06/20 12:41	02/09/20 11:23		1
NMeFOSA	<0.37		1.7	0.37	ng/L	02/06/20 12:41	02/09/20 11:23		1
NMeFOSE	<1.2		3.5	1.2	ng/L	02/06/20 12:41	02/09/20 11:23		1
NEtFOSE	<0.74		1.7	0.74	ng/L	02/06/20 12:41	02/09/20 11:23		1
Perfluorododecanesulfonic acid (PFDoS)	<0.39		1.7	0.39	ng/L	02/06/20 12:41	02/09/20 11:23		1
F-53B Major	<0.21		1.7	0.21	ng/L	02/06/20 12:41	02/09/20 11:23		1
HFPO-DA (GenX)	<1.3		3.5	1.3	ng/L	02/06/20 12:41	02/09/20 11:23		1
F-53B Minor	<0.28		1.7	0.28	ng/L	02/06/20 12:41	02/09/20 11:23		1
DONA	<0.16		1.7	0.16	ng/L	02/06/20 12:41	02/09/20 11:23		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	46		25 - 150			02/06/20 12:41	02/09/20 11:23		1
13C5 PFPeA	64		25 - 150			02/06/20 12:41	02/09/20 11:23		1
13C2 PFHxA	81		25 - 150			02/06/20 12:41	02/09/20 11:23		1
13C4 PFHpA	89		25 - 150			02/06/20 12:41	02/09/20 11:23		1
13C4 PFOA	90		25 - 150			02/06/20 12:41	02/09/20 11:23		1
13C5 PFNA	100		25 - 150			02/06/20 12:41	02/09/20 11:23		1
13C2 PFDA	101		25 - 150			02/06/20 12:41	02/09/20 11:23		1
13C2 PFUnA	104		25 - 150			02/06/20 12:41	02/09/20 11:23		1

Eurofins TestAmerica, Sacramento

Client Sample Results

Client: Moraine Environmental Inc
Project/Site: St. Francis Auto Wreckers - 6078

Job ID: 320-58353-1

Client Sample ID: MW-3B

Date Collected: 02/04/20 14:40

Date Received: 02/05/20 09:10

Lab Sample ID: 320-58353-2

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFDoA	111		25 - 150	02/06/20 12:41	02/09/20 11:23	1
13C2 PFTeDA	93		25 - 150	02/06/20 12:41	02/09/20 11:23	1
13C3 PFBS	85		25 - 150	02/06/20 12:41	02/09/20 11:23	1
18O2 PFHxS	93		25 - 150	02/06/20 12:41	02/09/20 11:23	1
13C4 PFOS	97		25 - 150	02/06/20 12:41	02/09/20 11:23	1
13C8 FOSA	89		25 - 150	02/06/20 12:41	02/09/20 11:23	1
d3-NMeFOSAA	124		25 - 150	02/06/20 12:41	02/09/20 11:23	1
d5-NEtFOSAA	127		25 - 150	02/06/20 12:41	02/09/20 11:23	1
M2-6:2 FTS	216 *		25 - 150	02/06/20 12:41	02/09/20 11:23	1
M2-8:2 FTS	171 *		25 - 150	02/06/20 12:41	02/09/20 11:23	1
M2-4:2 FTS	225 *		25 - 150	02/06/20 12:41	02/09/20 11:23	1
d9-N-EtFOSE-M	39		10 - 120	02/06/20 12:41	02/09/20 11:23	1
d-N-MeFOSA-M	52		20 - 150	02/06/20 12:41	02/09/20 11:23	1
d7-N-MeFOSE-M	39		10 - 120	02/06/20 12:41	02/09/20 11:23	1
d-N-EtFOSA-M	45		20 - 150	02/06/20 12:41	02/09/20 11:23	1
13C2 PFHxDA	81		25 - 150	02/06/20 12:41	02/09/20 11:23	1
13C3 HFPO-DA	53		25 - 150	02/06/20 12:41	02/09/20 11:23	1

Method: 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
4:2 FTS	<45		170	45	ng/L	02/06/20 12:41	02/10/20 08:32		10
6:2 FTS	<17		170	17	ng/L	02/06/20 12:41	02/10/20 08:32		10
8:2 FTS	<17		170	17	ng/L	02/06/20 12:41	02/10/20 08:32		10
10:2 FTS	<1.6		17	1.6	ng/L	02/06/20 12:41	02/10/20 08:32		10

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	153 *		25 - 150	02/06/20 12:41	02/10/20 08:32	10
M2-8:2 FTS	119		25 - 150	02/06/20 12:41	02/10/20 08:32	10
M2-4:2 FTS	160 *		25 - 150	02/06/20 12:41	02/10/20 08:32	10

Client Sample Results

Client: Moraine Environmental Inc
Project/Site: St. Francis Auto Wreckers - 6078

Job ID: 320-58353-1

Client Sample ID: MW-6

Date Collected: 02/04/20 14:30

Date Received: 02/05/20 09:10

Lab Sample ID: 320-58353-3

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	73		1.7	0.41	ng/L	02/06/20 12:41	02/09/20 11:33		1
Perfluorohexanoic acid (PFHxA)	82		1.7	0.49	ng/L	02/06/20 12:41	02/09/20 11:33		1
Perfluoroheptanoic acid (PFHpA)	63		1.7	0.21	ng/L	02/06/20 12:41	02/09/20 11:33		1
Perfluorooctanoic acid (PFOA)	250		1.7	0.72	ng/L	02/06/20 12:41	02/09/20 11:33		1
Perfluorononanoic acid (PFNA)	2.3		1.7	0.23	ng/L	02/06/20 12:41	02/09/20 11:33		1
Perfluoroundecanoic acid (PFUnA)	<0.93		1.7	0.93	ng/L	02/06/20 12:41	02/09/20 11:33		1
Perfluorododecanoic acid (PFDoA)	<0.46		1.7	0.46	ng/L	02/06/20 12:41	02/09/20 11:33		1
Perfluorotridecanoic acid (PFTriA)	<1.1		1.7	1.1	ng/L	02/06/20 12:41	02/09/20 11:33		1
Perfluorotetradecanoic acid (PFTeA)	<0.24		1.7	0.24	ng/L	02/06/20 12:41	02/09/20 11:33		1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.75		1.7	0.75	ng/L	02/06/20 12:41	02/09/20 11:33		1
Perfluorobutanesulfonic acid (PFBS)	24		1.7	0.17	ng/L	02/06/20 12:41	02/09/20 11:33		1
Perfluoro-n-octadecanoic acid (PFODA)	<0.39		1.7	0.39	ng/L	02/06/20 12:41	02/09/20 11:33		1
Perfluoropentanesulfonic acid (PFPeS)	38		1.7	0.25	ng/L	02/06/20 12:41	02/09/20 11:33		1
Perfluorohexanesulfonic acid (PFHxS)	85 B		1.7	0.14	ng/L	02/06/20 12:41	02/09/20 11:33		1
Perfluoroheptanesulfonic Acid (PFHpS)	12		1.7	0.16	ng/L	02/06/20 12:41	02/09/20 11:33		1
Perfluorooctanesulfonic acid (PFOS)	260		1.7	0.46	ng/L	02/06/20 12:41	02/09/20 11:33		1
Perfluoronananesulfonic acid (PFNS)	<0.13		1.7	0.13	ng/L	02/06/20 12:41	02/09/20 11:33		1
Perfluorodecanesulfonic acid (PFDS)	<0.27		1.7	0.27	ng/L	02/06/20 12:41	02/09/20 11:33		1
Perfluoroctanesulfonamide (FOSA)	0.50 J		1.7	0.30	ng/L	02/06/20 12:41	02/09/20 11:33		1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.6		17	2.6	ng/L	02/06/20 12:41	02/09/20 11:33		1
NEtFOSA	<0.73		1.7	0.73	ng/L	02/06/20 12:41	02/09/20 11:33		1
NMeFOSA	<0.36		1.7	0.36	ng/L	02/06/20 12:41	02/09/20 11:33		1
NMeFOSE	<1.2		3.4	1.2	ng/L	02/06/20 12:41	02/09/20 11:33		1
NEtFOSE	<0.72		1.7	0.72	ng/L	02/06/20 12:41	02/09/20 11:33		1
Perfluorododecanesulfonic acid (PFDoS)	<0.38		1.7	0.38	ng/L	02/06/20 12:41	02/09/20 11:33		1
F-53B Major	<0.20		1.7	0.20	ng/L	02/06/20 12:41	02/09/20 11:33		1
HFPO-DA (GenX)	<1.3		3.4	1.3	ng/L	02/06/20 12:41	02/09/20 11:33		1
F-53B Minor	<0.27		1.7	0.27	ng/L	02/06/20 12:41	02/09/20 11:33		1
DONA	<0.15		1.7	0.15	ng/L	02/06/20 12:41	02/09/20 11:33		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	15	*	25 - 150			02/06/20 12:41	02/09/20 11:33		1
13C5 PFPeA	34		25 - 150			02/06/20 12:41	02/09/20 11:33		1
13C2 PFHxA	72		25 - 150			02/06/20 12:41	02/09/20 11:33		1
13C4 PFHpA	96		25 - 150			02/06/20 12:41	02/09/20 11:33		1
13C4 PFOA	90		25 - 150			02/06/20 12:41	02/09/20 11:33		1
13C5 PFNA	119		25 - 150			02/06/20 12:41	02/09/20 11:33		1
13C2 PFDA	137		25 - 150			02/06/20 12:41	02/09/20 11:33		1
13C2 PFUnA	141		25 - 150			02/06/20 12:41	02/09/20 11:33		1
13C2 PFDoA	156	*	25 - 150			02/06/20 12:41	02/09/20 11:33		1
13C2 PFTeDA	103		25 - 150			02/06/20 12:41	02/09/20 11:33		1
13C3 PFBS	94		25 - 150			02/06/20 12:41	02/09/20 11:33		1
18O2 PFHxS	136		25 - 150			02/06/20 12:41	02/09/20 11:33		1

Eurofins TestAmerica, Sacramento

Client Sample Results

Client: Moraine Environmental Inc
Project/Site: St. Francis Auto Wreckers - 6078

Job ID: 320-58353-1

Client Sample ID: MW-6

Date Collected: 02/04/20 14:30

Date Received: 02/05/20 09:10

Lab Sample ID: 320-58353-3

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOS	137		25 - 150	02/06/20 12:41	02/09/20 11:33	1
13C8 FOSA	113		25 - 150	02/06/20 12:41	02/09/20 11:33	1
d3-NMeFOSAA	146		25 - 150	02/06/20 12:41	02/09/20 11:33	1
d5-NEtFOSAA	171 *		25 - 150	02/06/20 12:41	02/09/20 11:33	1
M2-6:2 FTS	320 *		25 - 150	02/06/20 12:41	02/09/20 11:33	1
M2-8:2 FTS	314 *		25 - 150	02/06/20 12:41	02/09/20 11:33	1
M2-4:2 FTS	302 *		25 - 150	02/06/20 12:41	02/09/20 11:33	1
d9-N-EtFOSE-M	50		10 - 120	02/06/20 12:41	02/09/20 11:33	1
d-N-MeFOSA-M	63		20 - 150	02/06/20 12:41	02/09/20 11:33	1
d7-N-MeFOSE-M	56		10 - 120	02/06/20 12:41	02/09/20 11:33	1
d-N-EtFOSA-M	57		20 - 150	02/06/20 12:41	02/09/20 11:33	1
13C2 PFHxDA	59		25 - 150	02/06/20 12:41	02/09/20 11:33	1
13C3 HFPO-DA	40		25 - 150	02/06/20 12:41	02/09/20 11:33	1

Method: 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	75	B	17	3.0	ng/L	02/06/20 12:41	02/10/20 08:41	10	10
Perfluorodecanoic acid (PFDA)	<2.6		17	2.6	ng/L	02/06/20 12:41	02/10/20 08:41	10	13
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<16		170	16	ng/L	02/06/20 12:41	02/10/20 08:41	10	14
4:2 FTS	<44		170	44	ng/L	02/06/20 12:41	02/10/20 08:41	10	15
6:2 FTS	<17		170	17	ng/L	02/06/20 12:41	02/10/20 08:41	10	
8:2 FTS	<17		170	17	ng/L	02/06/20 12:41	02/10/20 08:41	10	
10:2 FTS	<1.6		17	1.6	ng/L	02/06/20 12:41	02/10/20 08:41	10	

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	35		25 - 150	02/06/20 12:41	02/10/20 08:41	10
13C2 PFDaA	100		25 - 150	02/06/20 12:41	02/10/20 08:41	10
d5-NEtFOSAA	118		25 - 150	02/06/20 12:41	02/10/20 08:41	10
M2-6:2 FTS	230 *		25 - 150	02/06/20 12:41	02/10/20 08:41	10
M2-8:2 FTS	148		25 - 150	02/06/20 12:41	02/10/20 08:41	10
M2-4:2 FTS	207 *		25 - 150	02/06/20 12:41	02/10/20 08:41	10

Eurofins TestAmerica, Sacramento

Client Sample Results

Client: Moraine Environmental Inc
Project/Site: St. Francis Auto Wreckers - 6078

Job ID: 320-58353-1

Client Sample ID: MW-2

Date Collected: 02/04/20 14:20

Date Received: 02/05/20 09:10

Lab Sample ID: 320-58353-4

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	61	B	1.6	0.29	ng/L	02/06/20 12:41	02/09/20 11:42		1
Perfluoropentanoic acid (PFPeA)	65		1.6	0.40	ng/L	02/06/20 12:41	02/09/20 11:42		1
Perfluorohexanoic acid (PFHxA)	73		1.6	0.48	ng/L	02/06/20 12:41	02/09/20 11:42		1
Perfluoroheptanoic acid (PFHpA)	51		1.6	0.21	ng/L	02/06/20 12:41	02/09/20 11:42		1
Perfluorononanoic acid (PFNA)	4.5		1.6	0.22	ng/L	02/06/20 12:41	02/09/20 11:42		1
Perfluorodecanoic acid (PFDA)	0.38	J	1.6	0.26	ng/L	02/06/20 12:41	02/09/20 11:42		1
Perfluoroundecanoic acid (PFUnA)	<0.91		1.6	0.91	ng/L	02/06/20 12:41	02/09/20 11:42		1
Perfluorododecanoic acid (PFDoA)	<0.45		1.6	0.45	ng/L	02/06/20 12:41	02/09/20 11:42		1
Perfluorotridecanoic acid (PFTriA)	<1.1		1.6	1.1	ng/L	02/06/20 12:41	02/09/20 11:42		1
Perfluorotetradecanoic acid (PFTeA)	<0.24		1.6	0.24	ng/L	02/06/20 12:41	02/09/20 11:42		1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.73		1.6	0.73	ng/L	02/06/20 12:41	02/09/20 11:42		1
Perfluorobutanesulfonic acid (PFBS)	5.8		1.6	0.16	ng/L	02/06/20 12:41	02/09/20 11:42		1
Perfluoro-n-octadecanoic acid (PFODA)	<0.38		1.6	0.38	ng/L	02/06/20 12:41	02/09/20 11:42		1
Perfluoropentanesulfonic acid (PFPeS)	11		1.6	0.25	ng/L	02/06/20 12:41	02/09/20 11:42		1
Perfluorohexanesulfonic acid (PFHxS)	44	B	1.6	0.14	ng/L	02/06/20 12:41	02/09/20 11:42		1
Perfluoroheptanesulfonic Acid (PFHpS)	6.5		1.6	0.16	ng/L	02/06/20 12:41	02/09/20 11:42		1
Perfluorooctanesulfonic acid (PFOS)	300		1.6	0.44	ng/L	02/06/20 12:41	02/09/20 11:42		1
Perfluoronananesulfonic acid (PFNS)	<0.13		1.6	0.13	ng/L	02/06/20 12:41	02/09/20 11:42		1
Perfluorodecanesulfonic acid (PFDS)	<0.26		1.6	0.26	ng/L	02/06/20 12:41	02/09/20 11:42		1
Perfluoroctanesulfonamide (FOSA)	1.0	J	1.6	0.29	ng/L	02/06/20 12:41	02/09/20 11:42		1
N-methylperfluoroctanesulfonamidoacetic acid (NMeFOSAA)	<2.6		16	2.6	ng/L	02/06/20 12:41	02/09/20 11:42		1
N-ethylperfluoroctanesulfonamidoacetic acid (NEtFOSAA)	7.3	J	16	1.6	ng/L	02/06/20 12:41	02/09/20 11:42		1
4:2 FTS	<4.3		16	4.3	ng/L	02/06/20 12:41	02/09/20 11:42		1
6:2 FTS	<1.6		16	1.6	ng/L	02/06/20 12:41	02/09/20 11:42		1
8:2 FTS	<1.6		16	1.6	ng/L	02/06/20 12:41	02/09/20 11:42		1
NEtFOSA	<0.72		1.6	0.72	ng/L	02/06/20 12:41	02/09/20 11:42		1
NMeFOSA	<0.35		1.6	0.35	ng/L	02/06/20 12:41	02/09/20 11:42		1
NMeFOSE	<1.2		3.3	1.2	ng/L	02/06/20 12:41	02/09/20 11:42		1
NEtFOSE	<0.70		1.6	0.70	ng/L	02/06/20 12:41	02/09/20 11:42		1
Perfluorododecanesulfonic acid (PFDoS)	<0.37		1.6	0.37	ng/L	02/06/20 12:41	02/09/20 11:42		1
F-53B Major	<0.20		1.6	0.20	ng/L	02/06/20 12:41	02/09/20 11:42		1
HFPO-DA (GenX)	<1.2		3.3	1.2	ng/L	02/06/20 12:41	02/09/20 11:42		1
F-53B Minor	<0.26		1.6	0.26	ng/L	02/06/20 12:41	02/09/20 11:42		1
10:2 FTS	<0.16		1.6	0.16	ng/L	02/06/20 12:41	02/09/20 11:42		1
DONA	<0.15		1.6	0.15	ng/L	02/06/20 12:41	02/09/20 11:42		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	39		25 - 150			02/06/20 12:41	02/09/20 11:42		1
13C5 PFPeA	51		25 - 150			02/06/20 12:41	02/09/20 11:42		1
13C2 PFHxA	71		25 - 150			02/06/20 12:41	02/09/20 11:42		1
13C4 PFHpA	81		25 - 150			02/06/20 12:41	02/09/20 11:42		1
13C5 PFNA	92		25 - 150			02/06/20 12:41	02/09/20 11:42		1

Eurofins TestAmerica, Sacramento

Client Sample Results

Client: Moraine Environmental Inc
Project/Site: St. Francis Auto Wreckers - 6078

Job ID: 320-58353-1

Client Sample ID: MW-2

Date Collected: 02/04/20 14:20

Date Received: 02/05/20 09:10

Lab Sample ID: 320-58353-4

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFDA	105		25 - 150	02/06/20 12:41	02/09/20 11:42	1
13C2 PFUnA	107		25 - 150	02/06/20 12:41	02/09/20 11:42	1
13C2 PFDaA	118		25 - 150	02/06/20 12:41	02/09/20 11:42	1
13C2 PFTeDA	91		25 - 150	02/06/20 12:41	02/09/20 11:42	1
13C3 PFBS	82		25 - 150	02/06/20 12:41	02/09/20 11:42	1
18O2 PFHxS	91		25 - 150	02/06/20 12:41	02/09/20 11:42	1
13C4 PFOS	94		25 - 150	02/06/20 12:41	02/09/20 11:42	1
13C8 FOSA	81		25 - 150	02/06/20 12:41	02/09/20 11:42	1
d3-NMeFOSAA	124		25 - 150	02/06/20 12:41	02/09/20 11:42	1
d5-NEtFOSAA	130		25 - 150	02/06/20 12:41	02/09/20 11:42	1
M2-6:2 FTS	249 *		25 - 150	02/06/20 12:41	02/09/20 11:42	1
M2-8:2 FTS	226 *		25 - 150	02/06/20 12:41	02/09/20 11:42	1
M2-4:2 FTS	245 *		25 - 150	02/06/20 12:41	02/09/20 11:42	1
d9-N-EtFOSE-M	44		10 - 120	02/06/20 12:41	02/09/20 11:42	1
d-N-MeFOSA-M	56		20 - 150	02/06/20 12:41	02/09/20 11:42	1
d7-N-MeFOSE-M	45		10 - 120	02/06/20 12:41	02/09/20 11:42	1
d-N-EtFOSA-M	49		20 - 150	02/06/20 12:41	02/09/20 11:42	1
13C2 PFHxDA	84		25 - 150	02/06/20 12:41	02/09/20 11:42	1
13C3 HFPO-DA	51		25 - 150	02/06/20 12:41	02/09/20 11:42	1

Method: 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	640		16	7.0	ng/L	D	02/06/20 12:41	02/13/20 22:37	10
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOA	94		25 - 150				02/06/20 12:41	02/13/20 22:37	10

Client Sample Results

Client: Moraine Environmental Inc
Project/Site: St. Francis Auto Wreckers - 6078

Job ID: 320-58353-1

Client Sample ID: Field Blank

Date Collected: 02/04/20 14:20

Date Received: 02/05/20 09:10

Lab Sample ID: 320-58353-5

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.49	J B	1.9	0.33	ng/L	02/06/20 12:41	02/09/20 11:52		1
Perfluoropentanoic acid (PFPeA)	<0.47		1.9	0.47	ng/L	02/06/20 12:41	02/09/20 11:52		1
Perfluorohexanoic acid (PFHxA)	<0.55		1.9	0.55	ng/L	02/06/20 12:41	02/09/20 11:52		1
Perfluoroheptanoic acid (PFHpA)	<0.24		1.9	0.24	ng/L	02/06/20 12:41	02/09/20 11:52		1
Perfluorooctanoic acid (PFOA)	<0.81		1.9	0.81	ng/L	02/06/20 12:41	02/09/20 11:52		1
Perfluorononanoic acid (PFNA)	<0.26		1.9	0.26	ng/L	02/06/20 12:41	02/09/20 11:52		1
Perfluorodecanoic acid (PFDA)	<0.30		1.9	0.30	ng/L	02/06/20 12:41	02/09/20 11:52		1
Perfluoroundecanoic acid (PFUnA)	<1.0		1.9	1.0	ng/L	02/06/20 12:41	02/09/20 11:52		1
Perfluorododecanoic acid (PFDoA)	<0.52		1.9	0.52	ng/L	02/06/20 12:41	02/09/20 11:52		1
Perfluorotridecanoic acid (PFTriA)	<1.2		1.9	1.2	ng/L	02/06/20 12:41	02/09/20 11:52		1
Perfluorotetradecanoic acid (PFTeA)	<0.28		1.9	0.28	ng/L	02/06/20 12:41	02/09/20 11:52		1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.85		1.9	0.85	ng/L	02/06/20 12:41	02/09/20 11:52		1
Perfluorobutanesulfonic acid (PFBS)	<0.19		1.9	0.19	ng/L	02/06/20 12:41	02/09/20 11:52		1
Perfluoro-n-octadecanoic acid (PFODA)	<0.44		1.9	0.44	ng/L	02/06/20 12:41	02/09/20 11:52		1
Perfluoropentanesulfonic acid (PFPeS)	<0.29		1.9	0.29	ng/L	02/06/20 12:41	02/09/20 11:52		1
Perfluorohexanesulfonic acid (PFHxS)	0.34	J B	1.9	0.16	ng/L	02/06/20 12:41	02/09/20 11:52		1
Perfluoroheptanesulfonic Acid (PFHpS)	<0.18		1.9	0.18	ng/L	02/06/20 12:41	02/09/20 11:52		1
Perfluorooctanesulfonic acid (PFOS)	<0.51		1.9	0.51	ng/L	02/06/20 12:41	02/09/20 11:52		1
Perfluorononanesulfonic acid (PFNS)	<0.15		1.9	0.15	ng/L	02/06/20 12:41	02/09/20 11:52		1
Perfluorodecanesulfonic acid (PFDS)	<0.30		1.9	0.30	ng/L	02/06/20 12:41	02/09/20 11:52		1
Perfluorooctanesulfonamide (FOSA)	0.47	J	1.9	0.33	ng/L	02/06/20 12:41	02/09/20 11:52		1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<3.0		19	3.0	ng/L	02/06/20 12:41	02/09/20 11:52		1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1.8		19	1.8	ng/L	02/06/20 12:41	02/09/20 11:52		1
4:2 FTS	<5.0		19	5.0	ng/L	02/06/20 12:41	02/09/20 11:52		1
6:2 FTS	<1.9		19	1.9	ng/L	02/06/20 12:41	02/09/20 11:52		1
8:2 FTS	<1.9		19	1.9	ng/L	02/06/20 12:41	02/09/20 11:52		1
NEtFOSA	<0.83		1.9	0.83	ng/L	02/06/20 12:41	02/09/20 11:52		1
NMeFOSA	<0.41		1.9	0.41	ng/L	02/06/20 12:41	02/09/20 11:52		1
NMeFOSE	<1.3		3.8	1.3	ng/L	02/06/20 12:41	02/09/20 11:52		1
NEtFOSE	<0.81		1.9	0.81	ng/L	02/06/20 12:41	02/09/20 11:52		1
Perfluorododecanesulfonic acid (PFDoS)	<0.43		1.9	0.43	ng/L	02/06/20 12:41	02/09/20 11:52		1
F-53B Major	<0.23		1.9	0.23	ng/L	02/06/20 12:41	02/09/20 11:52		1
HFPO-DA (GenX)	<1.4		3.8	1.4	ng/L	02/06/20 12:41	02/09/20 11:52		1
F-53B Minor	<0.30		1.9	0.30	ng/L	02/06/20 12:41	02/09/20 11:52		1
10:2 FTS	<0.18		1.9	0.18	ng/L	02/06/20 12:41	02/09/20 11:52		1
DONA	<0.17		1.9	0.17	ng/L	02/06/20 12:41	02/09/20 11:52		1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	96		25 - 150			02/06/20 12:41	02/09/20 11:52		1
13C5 PFPeA	100		25 - 150			02/06/20 12:41	02/09/20 11:52		1
13C2 PFHxA	103		25 - 150			02/06/20 12:41	02/09/20 11:52		1
13C4 PFHpA	102		25 - 150			02/06/20 12:41	02/09/20 11:52		1
13C4 PFOA	101		25 - 150			02/06/20 12:41	02/09/20 11:52		1

Eurofins TestAmerica, Sacramento

Client Sample Results

Client: Moraine Environmental Inc
Project/Site: St. Francis Auto Wreckers - 6078

Job ID: 320-58353-1

Client Sample ID: Field Blank

Date Collected: 02/04/20 14:20

Date Received: 02/05/20 09:10

Lab Sample ID: 320-58353-5

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C5 PFNA	110		25 - 150	02/06/20 12:41	02/09/20 11:52	1
13C2 PFDA	103		25 - 150	02/06/20 12:41	02/09/20 11:52	1
13C2 PFUnA	109		25 - 150	02/06/20 12:41	02/09/20 11:52	1
13C2 PFDaA	104		25 - 150	02/06/20 12:41	02/09/20 11:52	1
13C2 PFTeDA	106		25 - 150	02/06/20 12:41	02/09/20 11:52	1
13C3 PFBS	101		25 - 150	02/06/20 12:41	02/09/20 11:52	1
18O2 PFHxS	100		25 - 150	02/06/20 12:41	02/09/20 11:52	1
13C4 PFOS	102		25 - 150	02/06/20 12:41	02/09/20 11:52	1
13C8 FOSA	95		25 - 150	02/06/20 12:41	02/09/20 11:52	1
d3-NMeFOSAA	118		25 - 150	02/06/20 12:41	02/09/20 11:52	1
d5-NEtFOSAA	121		25 - 150	02/06/20 12:41	02/09/20 11:52	1
M2-6:2 FTS	116		25 - 150	02/06/20 12:41	02/09/20 11:52	1
M2-8:2 FTS	111		25 - 150	02/06/20 12:41	02/09/20 11:52	1
M2-4:2 FTS	128		25 - 150	02/06/20 12:41	02/09/20 11:52	1
d9-N-EtFOSE-M	20		10 - 120	02/06/20 12:41	02/09/20 11:52	1
d-N-MeFOSA-M	65		20 - 150	02/06/20 12:41	02/09/20 11:52	1
d7-N-MeFOSE-M	24		10 - 120	02/06/20 12:41	02/09/20 11:52	1
d-N-EtFOSA-M	48		20 - 150	02/06/20 12:41	02/09/20 11:52	1
13C2 PFHxDA	99		25 - 150	02/06/20 12:41	02/09/20 11:52	1
13C3 HFPO-DA	99		25 - 150	02/06/20 12:41	02/09/20 11:52	1

Isotope Dilution Summary

Client: Moraine Environmental Inc

Project/Site: St. Francis Auto Wreckers - 6078

Job ID: 320-58353-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	PFHpA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-58353-1	PZ-1		37	63	74	75	90	96	91
320-58353-1 - DL	PZ-1	46							
320-58353-2	MW-3B	46	64	81	89	90	100	101	104
320-58353-2 - DL	MW-3B								
320-58353-3	MW-6	15 *	34	72	96	90	119	137	141
320-58353-3 - DL	MW-6	35							
320-58353-4	MW-2	39	51	71	81		92	105	107
320-58353-4 - DL	MW-2					94			
320-58353-5	Field Blank	96	100	103	102	101	110	103	109
LCS 320-355469/2-A	Lab Control Sample	95	94	97	97	96	101	102	100
LCSD 320-355469/3-A	Lab Control Sample Dup	79	80	84	83	79	85	84	85
MB 320-355469/1-A	Method Blank	93	94	96	99	92	100	100	105
Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoA (25-150)	PFTDA (25-150)	3C3-PFBs (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	-NMeFOSA (25-150)	-NEtFOSA/ -NFOSA (25-150)
320-58353-1	PZ-1	85	82	70	92		80	124	117
320-58353-1 - DL	PZ-1					73			
320-58353-2	MW-3B	111	93	85	93	97	89	124	127
320-58353-2 - DL	MW-3B								
320-58353-3	MW-6	156 *	103	94	136	137	113	146	171 *
320-58353-3 - DL	MW-6	100							118
320-58353-4	MW-2	118	91	82	91	94	81	124	130
320-58353-4 - DL	MW-2								
320-58353-5	Field Blank	104	106	101	100	102	95	118	121
LCS 320-355469/2-A	Lab Control Sample	105	102	98	96	100	93	124	125
LCSD 320-355469/3-A	Lab Control Sample Dup	90	85	84	82	85	79	110	102
MB 320-355469/1-A	Method Blank	107	106	94	92	100	90	128	127
Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		M262FTS (25-150)	M282FTS (25-150)	M242FTS (25-150)	NEFM (10-120)	I-MeFOSA (20-150)	NMFMS (10-120)	N-EtFOSA (20-150)	PFHxDA (25-150)
320-58353-1	PZ-1				39	46	37	37	79
320-58353-1 - DL	PZ-1	171 *	113	167 *					
320-58353-2	MW-3B	216 *	171 *	225 *	39	52	39	45	81
320-58353-2 - DL	MW-3B	153 *	119	160 *					
320-58353-3	MW-6	320 *	314 *	302 *	50	63	56	57	59
320-58353-3 - DL	MW-6	230 *	148	207 *					
320-58353-4	MW-2	249 *	226 *	245 *	44	56	45	49	84
320-58353-4 - DL	MW-2								
320-58353-5	Field Blank	116	111	128	20	65	24	48	99
LCS 320-355469/2-A	Lab Control Sample	117	112	121	17	58	20	36	101
LCSD 320-355469/3-A	Lab Control Sample Dup	94	89	100	12	48	16	30	89
MB 320-355469/1-A	Method Blank	116	112	133	15	55	18	37	92
Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		HFPoDA (25-150)							
320-58353-1	PZ-1	41							
320-58353-1 - DL	PZ-1								
320-58353-2	MW-3B	53							
320-58353-2 - DL	MW-3B								

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Isotope Dilution Summary

Client: Moraine Environmental Inc

Project/Site: St. Francis Auto Wreckers - 6078

Job ID: 320-58353-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	HFPODA (25-150)	Percent Isotope Dilution Recovery (Acceptance Limits)					
			40	51	94	79	96	99
320-58353-3	MW-6	40						
320-58353-3 - DL	MW-6							
320-58353-4	MW-2	51						
320-58353-4 - DL	MW-2							
320-58353-5	Field Blank	99						
LCS 320-355469/2-A	Lab Control Sample	94						
LCSD 320-355469/3-A	Lab Control Sample Dup	79						
MB 320-355469/1-A	Method Blank	96						

Surrogate Legend

PFBA = 13C4 PFBA
 PFPeA = 13C5 PFPeA
 PFHxA = 13C2 PFHxA
 PFHpA = 13C4 PFHpA
 PFOA = 13C4 PFOA
 PFNA = 13C5 PFNA
 PFDA = 13C2 PFDA
 PFUnA = 13C2 PFUnA
 PFDoA = 13C2 PFDoA
 PFTDA = 13C2 PFTeDA
 13C3-PFBS = 13C3 PFBS
 PFHxS = 18O2 PFHxS
 PFOS = 13C4 PFOS
 PFOSA = 13C8 FOSA
 d3-NMeFOSAA = d3-NMeFOSAA
 d5-NEtFOSAA = d5-NEtFOSAA
 M262FTS = M2-6:2 FTS
 M282FTS = M2-8:2 FTS
 M242FTS = M2-4:2 FTS
 NEFM = d9-N-EtFOSE-M
 d-N-MeFOSA-M = d-N-MeFOSA-M
 NMFM = d7-N-MeFOSE-M
 d-N-EtFOSA-M = d-N-EtFOSA-M
 PFHxDA = 13C2 PFHxDA
 HFPODA = 13C3 HFPO-DA

QC Sample Results

Client: Moraine Environmental Inc
Project/Site: St. Francis Auto Wreckers - 6078

Job ID: 320-58353-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-355469/1-A

Matrix: Water

Analysis Batch: 356035

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 355469

Analyte	MB	MB	Dil Fac						
	Result	Qualifier		LOQ	LOD	Unit	D	Prepared	Analyzed
Perfluorobutanoic acid (PFBA)	0.397	J	1	2.0	0.35	ng/L	02/06/20 12:41	02/09/20 08:32	
Perfluoropentanoic acid (PFPeA)	<0.49		1	2.0	0.49	ng/L	02/06/20 12:41	02/09/20 08:32	
Perfluorohexanoic acid (PFHxA)	<0.58		1	2.0	0.58	ng/L	02/06/20 12:41	02/09/20 08:32	
Perfluoroheptanoic acid (PFHpA)	<0.25		1	2.0	0.25	ng/L	02/06/20 12:41	02/09/20 08:32	
Perfluorooctanoic acid (PFOA)	<0.85		1	2.0	0.85	ng/L	02/06/20 12:41	02/09/20 08:32	
Perfluorononanoic acid (PFNA)	<0.27		1	2.0	0.27	ng/L	02/06/20 12:41	02/09/20 08:32	
Perfluorodecanoic acid (PFDA)	<0.31		1	2.0	0.31	ng/L	02/06/20 12:41	02/09/20 08:32	
Perfluoroundecanoic acid (PFUnA)	<1.1		1	2.0	1.1	ng/L	02/06/20 12:41	02/09/20 08:32	
Perfluorododecanoic acid (PFDoA)	<0.55		1	2.0	0.55	ng/L	02/06/20 12:41	02/09/20 08:32	
Perfluorotridecanoic acid (PFTriA)	<1.3		1	2.0	1.3	ng/L	02/06/20 12:41	02/09/20 08:32	
Perfluorotetradecanoic acid (PFTeA)	<0.29		1	2.0	0.29	ng/L	02/06/20 12:41	02/09/20 08:32	
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.89		1	2.0	0.89	ng/L	02/06/20 12:41	02/09/20 08:32	
Perfluorobutanesulfonic acid (PFBS)	<0.20		1	2.0	0.20	ng/L	02/06/20 12:41	02/09/20 08:32	12
Perfluoro-n-octadecanoic acid (PFODA)	<0.46		1	2.0	0.46	ng/L	02/06/20 12:41	02/09/20 08:32	
Perfluoropentanesulfonic acid (PFPeS)	<0.30		1	2.0	0.30	ng/L	02/06/20 12:41	02/09/20 08:32	13
Perfluorohexanesulfonic acid (PFHxS)	0.336	J	1	2.0	0.17	ng/L	02/06/20 12:41	02/09/20 08:32	14
Perfluorohexamethylene sulfonic acid (PFHxM)	<0.19		1	2.0	0.19	ng/L	02/06/20 12:41	02/09/20 08:32	
Perfluorooctanesulfonic acid (PFOS)	<0.54		1	2.0	0.54	ng/L	02/06/20 12:41	02/09/20 08:32	
Perfluorononanesulfonic acid (PFNS)	<0.16		1	2.0	0.16	ng/L	02/06/20 12:41	02/09/20 08:32	
Perfluorodecanesulfonic acid (PFDS)	<0.32		1	2.0	0.32	ng/L	02/06/20 12:41	02/09/20 08:32	
Perfluorooctanesulfonamide (FOSA)	<0.35		1	2.0	0.35	ng/L	02/06/20 12:41	02/09/20 08:32	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<3.1		1	20	3.1	ng/L	02/06/20 12:41	02/09/20 08:32	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1.9		1	20	1.9	ng/L	02/06/20 12:41	02/09/20 08:32	
4:2 FTS	<5.2		1	20	5.2	ng/L	02/06/20 12:41	02/09/20 08:32	
6:2 FTS	<2.0		1	20	2.0	ng/L	02/06/20 12:41	02/09/20 08:32	
8:2 FTS	<2.0		1	20	2.0	ng/L	02/06/20 12:41	02/09/20 08:32	
NEtFOSA	<0.87		1	2.0	0.87	ng/L	02/06/20 12:41	02/09/20 08:32	
NMeFOSA	<0.43		1	2.0	0.43	ng/L	02/06/20 12:41	02/09/20 08:32	
NMeFOSE	<1.4		1	4.0	1.4	ng/L	02/06/20 12:41	02/09/20 08:32	
NEtFOSE	<0.85		1	2.0	0.85	ng/L	02/06/20 12:41	02/09/20 08:32	
Perfluorododecanesulfonic acid (PFDoS)	<0.45		1	2.0	0.45	ng/L	02/06/20 12:41	02/09/20 08:32	
F-53B Major	<0.24		1	2.0	0.24	ng/L	02/06/20 12:41	02/09/20 08:32	
HFPO-DA (GenX)	<1.5		1	4.0	1.5	ng/L	02/06/20 12:41	02/09/20 08:32	
F-53B Minor	<0.32		1	2.0	0.32	ng/L	02/06/20 12:41	02/09/20 08:32	
10:2 FTS	<0.19		1	2.0	0.19	ng/L	02/06/20 12:41	02/09/20 08:32	
DONA	<0.18		1	2.0	0.18	ng/L	02/06/20 12:41	02/09/20 08:32	

Isotope Dilution	MB	MB	Dil Fac				
	%Recovery	Qualifier		Limits	Prepared	Analyzed	
13C4 PFBA	93		1	25 - 150	02/06/20 12:41	02/09/20 08:32	
13C5 PFPeA	94		1	25 - 150	02/06/20 12:41	02/09/20 08:32	
13C2 PFHxA	96		1	25 - 150	02/06/20 12:41	02/09/20 08:32	
13C4 PFHpA	99		1	25 - 150	02/06/20 12:41	02/09/20 08:32	
13C4 PFOA	92		1	25 - 150	02/06/20 12:41	02/09/20 08:32	

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QC Sample Results

Client: Moraine Environmental Inc
Project/Site: St. Francis Auto Wreckers - 6078

Job ID: 320-58353-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-355469/1-A

Matrix: Water

Analysis Batch: 356035

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 355469

Isotope Dilution	MB	MB	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier			
13C5 PFNA	100		25 - 150		
13C2 PFDA	100		25 - 150		
13C2 PFUnA	105		25 - 150		
13C2 PFDaA	107		25 - 150		
13C2 PFTeDA	106		25 - 150		
13C3 PFBS	94		25 - 150		
18O2 PFHxS	92		25 - 150		
13C4 PFOS	100		25 - 150		
13C8 FOSA	90		25 - 150		
d3-NMeFOSAA	128		25 - 150		
d5-NEtFOSAA	127		25 - 150		
M2-6:2 FTS	116		25 - 150		
M2-8:2 FTS	112		25 - 150		
M2-4:2 FTS	133		25 - 150		
d9-N-EtFOSE-M	15		10 - 120		
d-N-MeFOSA-M	55		20 - 150		
d7-N-MeFOSE-M	18		10 - 120		
d-N-EtFOSA-M	37		20 - 150		
13C2 PFHxDA	92		25 - 150		
13C3 HFPO-DA	96		25 - 150		

Lab Sample ID: LCS 320-355469/2-A

Matrix: Water

Analysis Batch: 356035

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 355469

Analyte	Spike	LCS	LCS	%Rec.			Limits
	Added	Result	Qualifier	Unit	D	%Rec	
Perfluorobutanoic acid (PFBA)	40.0	40.1		ng/L		100	76 - 136
Perfluoropentanoic acid (PFPeA)	40.0	39.7		ng/L		99	71 - 131
Perfluorohexanoic acid (PFHxA)	40.0	39.6		ng/L		99	73 - 133
Perfluoroheptanoic acid (PFHpA)	40.0	39.8		ng/L		99	72 - 132
Perfluoroctanoic acid (PFOA)	40.0	40.6		ng/L		101	70 - 130
Perfluorononanoic acid (PFNA)	40.0	47.4		ng/L		119	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	38.4		ng/L		96	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	35.8		ng/L		89	68 - 128
Perfluorododecanoic acid (PFDaA)	40.0	34.8		ng/L		87	71 - 131
Perfluorotridecanoic acid (PFTriA)	40.0	37.6		ng/L		94	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	38.2		ng/L		96	70 - 130
Perfluoro-n-hexadecanoic acid (PFHxDA)	40.0	40.1		ng/L		100	76 - 136
Perfluorobutanesulfonic acid (PFBS)	35.4	35.5		ng/L		100	67 - 127
Perfluoro-n-octadecanoic acid (PFODA)	40.0	41.0		ng/L		102	58 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.5	40.2		ng/L		107	66 - 126
Perfluorohexamersulfonic acid (PFHxS)	36.4	36.5		ng/L		100	59 - 119

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QC Sample Results

Client: Moraine Environmental Inc
Project/Site: St. Francis Auto Wreckers - 6078

Job ID: 320-58353-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-355469/2-A

Matrix: Water

Analysis Batch: 356035

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 355469

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	38.6		ng/L	101	76 - 136	
Perfluorooctanesulfonic acid (PFOS)	37.1	34.6		ng/L	93	70 - 130	
Perfluorononanesulfonic acid (PFNS)	38.4	37.6		ng/L	98	75 - 135	
Perfluorodecanesulfonic acid (PFDS)	38.6	38.2		ng/L	99	71 - 131	
Perfluorooctanesulfonamide (FOSA)	40.0	38.5		ng/L	96	73 - 133	
N-methylperfluorooctanesulfonic acid (NMeFOSAA)	40.0	39.1		ng/L	98	76 - 136	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	35.5		ng/L	89	76 - 136	
4:2 FTS	37.4	36.2		ng/L	97	79 - 139	
6:2 FTS	37.9	34.5		ng/L	91	59 - 175	
8:2 FTS	38.3	32.9		ng/L	86	75 - 135	
NEtFOSA	40.0	40.3		ng/L	101	78 - 138	
NMeFOSA	40.0	40.2		ng/L	101	67 - 154	
NMeFOSE	40.0	37.4		ng/L	93	70 - 130	
NEtFOSE	40.0	41.7		ng/L	104	71 - 131	
Perfluorododecanesulfonic acid (PFDs)	38.7	35.0		ng/L	90	67 - 127	
F-53B Major	37.3	34.9		ng/L	94	75 - 135	
HFPO-DA (GenX)	40.0	39.3		ng/L	98	51 - 173	
F-53B Minor	37.7	35.8		ng/L	95	54 - 114	
10:2 FTS	38.6	33.3		ng/L	86	64 - 142	
DONA	37.7	36.8		ng/L	98	79 - 139	

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	95		25 - 150
13C5 PFPeA	94		25 - 150
13C2 PFHxA	97		25 - 150
13C4 PFHpA	97		25 - 150
13C4 PFOA	96		25 - 150
13C5 PFNA	101		25 - 150
13C2 PFDA	102		25 - 150
13C2 PFUnA	100		25 - 150
13C2 PFDoA	105		25 - 150
13C2 PFTeDA	102		25 - 150
13C3 PFBS	98		25 - 150
18O2 PFHxS	96		25 - 150
13C4 PFOS	100		25 - 150
13C8 FOSA	93		25 - 150
d3-NMeFOSAA	124		25 - 150
d5-NEtFOSAA	125		25 - 150
M2-6:2 FTS	117		25 - 150
M2-8:2 FTS	112		25 - 150
M2-4:2 FTS	121		25 - 150
d9-N-EtFOSE-M	17		10 - 120
d-N-MeFOSA-M	58		20 - 150

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QC Sample Results

Client: Moraine Environmental Inc
Project/Site: St. Francis Auto Wreckers - 6078

Job ID: 320-58353-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-355469/2-A

Matrix: Water

Analysis Batch: 356035

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 355469

Isotope Dilution	LCS	LCS	Limits
	%Recovery	Qualifier	
d7-N-MeFOSE-M	20		10 - 120
d-N-EtFOSA-M	36		20 - 150
13C2 PFHxDA	101		25 - 150
13C3 HFPO-DA	94		25 - 150

Lab Sample ID: LCSD 320-355469/3-A

Matrix: Water

Analysis Batch: 356035

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 355469

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	RPD	RPD	Limit
Perfluorobutanoic acid (PFBA)	40.0	41.2		ng/L		103	76 - 136	3	30	
Perfluoropentanoic acid (PPPeA)	40.0	40.2		ng/L		101	71 - 131	1	30	
Perfluorohexanoic acid (PFHxA)	40.0	39.4		ng/L		98	73 - 133	1	30	
Perfluoroheptanoic acid (PFHpA)	40.0	40.8		ng/L		102	72 - 132	3	30	
Perfluorooctanoic acid (PFOA)	40.0	43.0		ng/L		108	70 - 130	6	30	
Perfluorononanoic acid (PFNA)	40.0	46.5		ng/L		116	75 - 135	2	30	
Perfluorodecanoic acid (PFDA)	40.0	39.6		ng/L		99	76 - 136	3	30	
Perfluoroundecanoic acid (PFUnA)	40.0	35.9		ng/L		90	68 - 128	0	30	
Perfluorododecanoic acid (PFDoA)	40.0	36.4		ng/L		91	71 - 131	5	30	
Perfluorotridecanoic acid (PFTriA)	40.0	38.5		ng/L		96	71 - 131	2	30	
Perfluorotetradecanoic acid (PFTeA)	40.0	38.3		ng/L		96	70 - 130	0	30	
Perfluoro-n-hexadecanoic acid (PFHxDA)	40.0	42.3		ng/L		106	76 - 136	5	30	
Perfluorobutanesulfonic acid (PFBS)	35.4	35.6		ng/L		101	67 - 127	0	30	
Perfluoro-n-octadecanoic acid (PFODA)	40.0	39.5		ng/L		99	58 - 145	4	30	
Perfluoropentanesulfonic acid (PPPeS)	37.5	39.5		ng/L		105	66 - 126	2	30	
Perfluorohexanesulfonic acid (PFHxS)	36.4	35.6		ng/L		98	59 - 119	3	30	
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	39.0		ng/L		102	76 - 136	1	30	
Perfluorooctanesulfonic acid (PFOS)	37.1	35.1		ng/L		95	70 - 130	1	30	
Perfluorononanesulfonic acid (PFNS)	38.4	38.1		ng/L		99	75 - 135	1	30	
Perfluorodecanesulfonic acid (PFDS)	38.6	38.2		ng/L		99	71 - 131	0	30	
Perfluoroctanesulfonamide (FOSA)	40.0	37.2		ng/L		93	73 - 133	3	30	
N-methylperfluorooctanesulfona midoacetic acid (NMeFOSAA)	40.0	36.7		ng/L		92	76 - 136	6	30	
N-ethylperfluorooctanesulfonami doacetic acid (NEtFOSAA)	40.0	36.8		ng/L		92	76 - 136	4	30	
4:2 FTS	37.4	35.8		ng/L		96	79 - 139	1	30	
6:2 FTS	37.9	33.6		ng/L		89	59 - 175	3	30	
8:2 FTS	38.3	35.0		ng/L		91	75 - 135	6	30	
NEtFOSA	40.0	42.3		ng/L		106	78 - 138	5	30	

Eurofins TestAmerica, Sacramento

QC Sample Results

Client: Moraine Environmental Inc
Project/Site: St. Francis Auto Wreckers - 6078

Job ID: 320-58353-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-355469/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 356035

Prep Batch: 355469

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
NMeFOSA	40.0	45.0		ng/L		112	67 - 154	11	30
NMeFOSE	40.0	39.5		ng/L		99	70 - 130	6	30
NEtFOSE	40.0	45.3		ng/L		113	71 - 131	8	30
Perfluorododecanesulfonic acid (PFDoS)	38.7	35.3		ng/L		91	67 - 127	1	30
F-53B Major	37.3	36.9		ng/L		99	75 - 135	6	30
HFPO-DA (GenX)	40.0	41.4		ng/L		103	51 - 173	5	30
F-53B Minor	37.7	35.3		ng/L		94	54 - 114	1	30
10:2 FTS	38.6	35.7		ng/L		93	64 - 142	7	30
DONA	37.7	36.0		ng/L		96	79 - 139	2	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C4 PFBA	79		25 - 150
13C5 PFPeA	80		25 - 150
13C2 PFHxA	84		25 - 150
13C4 PFHpA	83		25 - 150
13C4 PFOA	79		25 - 150
13C5 PFNA	85		25 - 150
13C2 PFDA	84		25 - 150
13C2 PFUnA	85		25 - 150
13C2 PFDoA	90		25 - 150
13C2 PFTeDA	85		25 - 150
13C3 PFBS	84		25 - 150
18O2 PFHxS	82		25 - 150
13C4 PFOS	85		25 - 150
13C8 FOSA	79		25 - 150
d3-NMeFOSAA	110		25 - 150
d5-NEtFOSAA	102		25 - 150
M2-6:2 FTS	94		25 - 150
M2-8:2 FTS	89		25 - 150
M2-4:2 FTS	100		25 - 150
d9-N-EtFOSE-M	12		10 - 120
d-N-MeFOSA-M	48		20 - 150
d7-N-MeFOSE-M	16		10 - 120
d-N-EtFOSA-M	30		20 - 150
13C2 PFHxDA	89		25 - 150
13C3 HFPO-DA	79		25 - 150

QC Association Summary

Client: Moraine Environmental Inc
Project/Site: St. Francis Auto Wreckers - 6078

Job ID: 320-58353-1

LCMS

Prep Batch: 355469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-58353-1 - DL	PZ-1	Total/NA	Water	3535	
320-58353-1	PZ-1	Total/NA	Water	3535	
320-58353-2	MW-3B	Total/NA	Water	3535	
320-58353-2 - DL	MW-3B	Total/NA	Water	3535	
320-58353-3 - DL	MW-6	Total/NA	Water	3535	
320-58353-3	MW-6	Total/NA	Water	3535	
320-58353-4	MW-2	Total/NA	Water	3535	
320-58353-4 - DL	MW-2	Total/NA	Water	3535	
320-58353-5	Field Blank	Total/NA	Water	3535	
MB 320-355469/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-355469/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-355469/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 356035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-58353-1	PZ-1	Total/NA	Water	537 (modified)	355469
320-58353-2	MW-3B	Total/NA	Water	537 (modified)	355469
320-58353-3	MW-6	Total/NA	Water	537 (modified)	355469
320-58353-4	MW-2	Total/NA	Water	537 (modified)	355469
320-58353-5	Field Blank	Total/NA	Water	537 (modified)	355469
MB 320-355469/1-A	Method Blank	Total/NA	Water	537 (modified)	355469
LCS 320-355469/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	355469
LCSD 320-355469/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	355469

Analysis Batch: 356107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-58353-1 - DL	PZ-1	Total/NA	Water	537 (modified)	355469
320-58353-2 - DL	MW-3B	Total/NA	Water	537 (modified)	355469
320-58353-3 - DL	MW-6	Total/NA	Water	537 (modified)	355469

Analysis Batch: 357244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-58353-4 - DL	MW-2	Total/NA	Water	537 (modified)	355469

Lab Chronicle

Client: Moraine Environmental Inc
Project/Site: St. Francis Auto Wreckers - 6078

Job ID: 320-58353-1

Client Sample ID: PZ-1

Date Collected: 02/04/20 14:35

Date Received: 02/05/20 09:10

Lab Sample ID: 320-58353-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			300.8 mL	10.00 mL	355469	02/06/20 12:41	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			356035	02/09/20 11:14	RS1	TAL SAC
Total/NA	Prep	3535	DL		300.8 mL	10.00 mL	355469	02/06/20 12:41	VP	TAL SAC
Total/NA	Analysis	537 (modified)	DL	10			356107	02/10/20 08:22	RS1	TAL SAC

Client Sample ID: MW-3B

Date Collected: 02/04/20 14:40

Date Received: 02/05/20 09:10

Lab Sample ID: 320-58353-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			288.4 mL	10.00 mL	355469	02/06/20 12:41	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			356035	02/09/20 11:23	RS1	TAL SAC
Total/NA	Prep	3535	DL		288.4 mL	10.00 mL	355469	02/06/20 12:41	VP	TAL SAC
Total/NA	Analysis	537 (modified)	DL	10			356107	02/10/20 08:32	RS1	TAL SAC

Client Sample ID: MW-6

Date Collected: 02/04/20 14:30

Date Received: 02/05/20 09:10

Lab Sample ID: 320-58353-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			296.4 mL	10.00 mL	355469	02/06/20 12:41	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			356035	02/09/20 11:33	RS1	TAL SAC
Total/NA	Prep	3535	DL		296.4 mL	10.00 mL	355469	02/06/20 12:41	VP	TAL SAC
Total/NA	Analysis	537 (modified)	DL	10			356107	02/10/20 08:41	RS1	TAL SAC

Client Sample ID: MW-2

Date Collected: 02/04/20 14:20

Date Received: 02/05/20 09:10

Lab Sample ID: 320-58353-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			303.4 mL	10.00 mL	355469	02/06/20 12:41	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			356035	02/09/20 11:42	RS1	TAL SAC
Total/NA	Prep	3535	DL		303.4 mL	10.00 mL	355469	02/06/20 12:41	VP	TAL SAC
Total/NA	Analysis	537 (modified)	DL	10			357244	02/13/20 22:37	P1N	TAL SAC

Client Sample ID: Field Blank

Date Collected: 02/04/20 14:20

Date Received: 02/05/20 09:10

Lab Sample ID: 320-58353-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			262.4 mL	10.00 mL	355469	02/06/20 12:41	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			356035	02/09/20 11:52	RS1	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Eurofins TestAmerica, Sacramento

Accreditation/Certification Summary

Client: Moraine Environmental Inc

Project/Site: St. Francis Auto Wreckers - 6078

Job ID: 320-58353-1

Laboratory: Eurofins TestAmerica, Sacramento

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4040	01-29-21

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Method Summary

Client: Moraine Environmental Inc
Project/Site: St. Francis Auto Wreckers - 6078

Job ID: 320-58353-1

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC

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 SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

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Sample Summary

Client: Moraine Environmental Inc
Project/Site: St. Francis Auto Wreckers - 6078

Job ID: 320-58353-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-58353-1	PZ-1	Water	02/04/20 14:35	02/05/20 09:10	
320-58353-2	MW-3B	Water	02/04/20 14:40	02/05/20 09:10	
320-58353-3	MW-6	Water	02/04/20 14:30	02/05/20 09:10	
320-58353-4	MW-2	Water	02/04/20 14:20	02/05/20 09:10	
320-58353-5	Field Blank	Water	02/04/20 14:20	02/05/20 09:10	

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Login Sample Receipt Checklist

Client: Moraine Environmental Inc

Job Number: 320-58353-1

Login Number: 58353

List Source: Eurofins TestAmerica, Sacramento

List Number: 1

Creator: Her, David A

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	738454
Sample custody seals, if present, are intact.	N/A	
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	
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.	False	Times taken from the container
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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	