Moraine Environmental, Inc.
Design • Engineer • Construct

January 21, 2020

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
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. The work completed includes 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 residence located north of the site's north vacant lot. The Detailed Site Map is attached.

VAPOR STUDY

The residence at 3975 S Pennsylvania Avenue is within 100 feet of the identified CVOC groundwater ES plume on the subject site. Moraine collected two sub-slab samples in the basement along the south wall of the residence on September 26, 2019, and had the vapor analyzed for VOCs by method TO-15. The water dam method was used to procure the samples. Several detections were observed but none in excess of residential Vapor Risk Screening Levels (VRSLs). Based on these results, Moraine recommends no additional vapor study is necessary on the residence at 3975 S Pennsylvania Avenue.

GROUNDWATER INVESTIGATION

The piezometers were installed on September 5, 2019, each to 45 feet below ground surface. The boreholes were blind drilled to 20 feet followed by 5' macrocore soil sampling every five (5) feet until depth (45 feet) was achieved. Soil types identified indicate alternating silt and sand layers throughout the investigated interval. Samples were screened with an OVM with no soil analysis. PZ-1 was nested with MW-3B in the northeast corner of the north vacant lot. PZ-2 was installed at the location of HP-15 on the south side of the southern salvage yard area. Soil boring and well construction forms are attached.

766 Tower Drive • Fredonia, WI 53021 • (262) 692-3345 • Fax (262) 692-3348
Email: moraine@execpc.com • www.moraineenvironmental.com

Moraine personnel returned to the site on September 26, 2019, to survey, develop, and sample the new piezometers, and purge and sample MW-3B and MW-6. 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 wells 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 analysis at PZ-1 resulted in VC of 0.43 J ug/L, just above its ES, with no other PAL or ES exceedances, indicating the vertical limits of groundwater contamination are defined in this area. PZ-2 sampling (in the salvage yard) resulted in a low-level PAL exceedance of 1,1-DCE and ES exceedances of cis-1,2-DCE and VC. Additional monitoring and purging may bring the results at PZ-2 to a lower level more representative of quality.

PFAS analysis was performed using PFAS free sampling protocol on wells MW-6, MW-3B/PZ-1 all located in the north vacant lot. Currently there exist no federal or state Standards. The WDNR has recommendations for ES/PAL levels for two (2) 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 indicate PFOA exceeds proposed ES's at MW-3B/PZ-1 and MW-6. PFOS exceeds its proposed ES at PZ-1 and MW-6 and exceeds its proposed PAL at MW-3B.

RECOMMENDATIONS

No additional vapor study activities are recommended. Moraine has planned one additional round of groundwater monitoring to verify September 2019 results and also to potentially identify a decreasing VOC plume at PZ-2. The intended scope will include VOC groundwater analysis on four wells (PZ-2, MW-6, MW-3B/PZ-1), and PFAS groundwater analysis on MW-6, MW-3B/PZ-1, and MW-2. MW-2 is located just up-gradient of the former landfill along the west fence line and we want to confirm/verify no PFAS contamination is migrating onto the site from the west/southwest.

Sincerely,
Moraine Environmental, Inc.

David M. Lennon, P.E. 12/2/19

David M. Lennon, P.E.
Senior Project Manager

Attachments

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

Attachment A

Figures & Tables

Residence:
3975 S.
Pennsylvania
Ave.

RSS-2

RSS-1

E. Norwich Ave.

Hwy. 794 - Lake Parkway NB

Hwy. 794 - Lake Parkway SB

Roadway Easement

Off-Ramp

S. Pennsylvania Ave.

Vacant Lot

Drainage Swale

Main Building

Driveway / Parking Area

Auto
Wrecking
Yard

Roadway Easement

B-12

SF-10

SF-2

HA-12

SF-9

SF-5
(SED)

BW-13

B-13E

BW-13A

SF-8

B-13D

SF-4
(SW)

SF-7

B-13C

B-13B

SF-3

SF-1

B-14

SF-6

HP05
SB01
GP-7
HP04
MW-05
HP06
SB02
GP-6
SF07
PZ-1
HP03
MW-3B
MW-03
(Can't Locate)
GP-5/SD-5
MW-13
SF06
TP 1
TP 2
TP 3
TP 4
TP 5
TP 6
TP 7
TP 8
TP 9
TP 10
TP 11
TP 12
Test Pit #3
Sample E-27
Test Pit #4
Sample E-29
Test Pit #5
Sample E-31
Test Pit #2
Sample E-25
Test Pit #1
Sample E-23
Sample E-43
HP12
Sample E-45
HP11
SB03
Sample E-41
SF08
MW-6
Sample E-39
HP10
HP02
SS-1
Sample E-42
SS-2
Sample E-44
Sample E-40
SS-3
HP08
SB04
Sample E-38
HP07
HP01
GP-4
MW-12
HP09
MW-02
SF09
SF-11-15
HBO1
SF-12-15
SB06
HBO2
SB05
SF11
SF12
MW-04
SF10
SF-14-15
SF14
HP20
D3
MW-7
HP19
SS-5
D2
SS-1
D1
HP22
HP13
SB09
C3
C2
SS-4
SS-3
C1
SS-2
HP23
MW-11
GP-3/
TW-3
MW-01
BC4
SF15
SF-15-15
HP18
B2
B1
HP17
B3
HP16
A3
A4
GP-2
HP14
SB07
A1
A2
PZ-2
SB08
SF13
HP15
GP-1/
TW-1
MW-8
HP21

NOTES:

**TP 1-12 are test pits excavated by North Shore Environmental in August 2006 - no analytical results as purpose was to identify extent of "landfill"

**Test Pit #1-5 are test pits excavated by STN in February 2009.

Legend

- OE — Overhead Electric
- SAN — Underground Sewer Line
- W — Underground Water Line
- G — Underground Gas Line
- COM — Underground Telephone Line
- Approximate Property Boundary
- Fence Line
- MW-11 — Monitoring Wells MW-11 though MW-13 were temporary wells installed in 1996 by ERM as part of an off-site investigation of east adjacent DF, Inc.
- GP-1/ TW-1 — Geoprobes/Temporary Wells advanced on 7/17/15 & 3/1/18 by Moraine
- SF-11-15 — Shallow Probes / Hand Augers conducted on 7/17/15 & 7/21/15 by Moraine
- **SF-6** — Shallow Probes / Hand Augers SF-1 through SF-10 conducted in November 1991 by STS Consultants
- **SF10** — Shallow Probes / Hand Augers SF-06 through SF-12 conducted in June 2004 by the WDNR
- **B-14** — Shallow Probes / Hand Augers B..., HA-12 conducted in April 1991 by STS.
- **SS-2** — Shallow Probes / Hand Augers SS-1 to SS-3 conducted in June 2008 by STN Environmental
- SB-01 — Soil Boring Location and Number (Montgomery Watson 2001)
- MW-01 — Monitoring Wells MW-01 to MW-05 drilled in 2001 (Previous Consultant)
- MW-7 — Monitoring Wells MW-6 to MW-8 installed by Moraine on 3/1/18
- Trees/Shrubs
- HBO1 — Drainage Swale Location & I.D. (Montgomery Watson 1999)
- HP15 — Hydraulic Probe Soil Sample Location & I.D. (Montgomery Watson 1999)
- B2 — Previous Hand Auger Location & I.D. (STS 1991)
- SS-1 — Sub-Slab Sample Location & I.D. completed 7/24/18
- E38 to E45 — 2009 Excavation Sample Points composited from 5 samples in each quadrant
- Approximate Excavation Area from STN in October 2008

N

0 60'
Graphic Scale

Revised by CTS

Revised: 11-29-19

Project File: Metek60A 6078 Working.dwg

*Note: Depiction prepared from field notes. Boundaries are not surveyed.

FIGURE B. I .b
DETAILED SITE MAP

4043 SOUTH PENNSYLVANIA AVE., ST. FRANCIS, WI

ST. FRANCIS AUTO WRECKERS

Moraine Environmental, Inc.
Environmental Management Services
765 Tower Drive, Pardeeville, WI 53927
262-692-3345 / Fax 262-692-3346

FIGURE B.4.a
VAPOR INTRUSION MAP

4043 SOUTH PENNSYLVANIA AVE., ST. FRANCIS, WI
ST. FRANCIS AUTO WRECKERS

Graphic Scale 0 60'

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Residence:
3975 S.
Pennsylvania
Ave.

RSS-2
RSS-1
<VRSL's (residential)

E. Norwich Ave.

Hwy. 794 - Lake Parkway NB

Hwy. 794 - Lake Parkway SB

Roadway Easement

Off-Ramp

Vacant Lot

Drainage Swale

Main Building

Driveway / Parking Area

S. Pennsylvania Ave.

Auto Wrecking Yard

<VRSL's (residential & commercial)

<VRSL's (commercial)
B: 139 exceeds residential VRSL
TCE: 115 exceeds residential VRSL

<VRSL's (commercial)
TCE: 99.1 exceeds residential VRSL

<VRSL's (commercial)
Ch: 45.3 exceeds residential VRSL
TCE: 162 exceeds residential VRSL

<VRSL's (commercial)
TCE: 189 exceeds residential VRSL

MW-02 MW-05 MW-03 (Can't Locate) MW-13 MW-12 MW-11 MW-04 MW-6 MW-01 MW-7 MW-8

HP01 HP02 HP03 HP04 HP05 HP06 HP07 HP08 HP09 HP10 HP11 HP12 HP13 HP14 HP15 HP16 HP17 HP18 HP19 HP20 HP21 HP22 HP23

SB01 SB02 SB03 SB04 SB05 SB06 SB07 SB08 SB09

GP-1/TW-1 GP-2 GP-3/TW-3 GP-4 GP-5/SD-5 GP-6 GP-7

PZ-1 PZ-2

SS-1 SS-2 SS-3 SS-4 SS-5

SF-1 SF-2 SF-3 SF-4 (SW) SF-5 (SED) SF-6 SF-7 SF-8 SF-9 SF-10 SF-11-15 SF-12-15 SF-14-15 SF-15-15

SF06 SF07 SF08 SF09 SF10 SF11 SF12 SF13 SF14 SF15

HBO1 HBO2

B-12 B-13 B-13B B-13C B-13D B-13E B-14 BW-13 BW-13A HA-12

A1 A2 A3 A4 B1 B2 B3 BC4 C1 C2 C3 CD4 D1 D2 D3

Test Pit #1 Sample E-27
Test Pit #2 Sample E-23
Test Pit #3 Sample E-31
Test Pit #4 Sample E-29
Test Pit #5 Sample E-25

TP 1 TP 2 TP 3 TP 4 TP 5 TP 6 TP 7 TP 8 TP 9 TP 10 TP 11 TP 12

Sample E-38 Sample E-39 Sample E-40 Sample E-41 Sample E-42 Sample E-43 Sample E-44 Sample E-45

N

**(TP 1-12) are test pits excavated by North Shore Environmental in August 2006 - no analytical results as purpose was to identify extent of "landfill"

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- E38 to E45 — 2009 Excavation Sample Points composited from 5 samples in each quadrant
- Approximate Excavation Area from STN in October 2008
- VRSL — Vapor Risk Screening Level
- B: Benzene
- Ch: Chloroform
- 162 - Concentration in µg/m^3
- TCE: Trichloroethene

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

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

	Road, West of Salavage Yard						S Pennsylvania Ave. R.O.W.			Salvage Yard																										
	Surface	Temporary Wells					Temporary Wells			Permanent Wells																							Temporary Wells			
Well ID	SF-4	BW-13	SF-6	BW-13A		SF-9	MW-11	MW-12	MW-13	MW-1							MW-4							MW-7				MW-8				PZ-2	TW-1	TW-3	NR 140 PAL	NR 140 ES
Collection Date	7/23/91	1990	7/23/91	1990	7/11/91	7/23/91	11/12/96	11/12/96	11/12/96	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	3/7/18	7/24/18	10/24/18	1/15/19	9/26/19	12/17/15	12/17/15		
Detected Volatile Organic Compounds (µg/L)																																				
1,1,1,2-Tetrachloroethane		---	ND	---	ND	ND	---	---	---	ND		<0.18	<0.18	<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	<0.18	<0.27	<0.27	<0.27	<0.27	<0.18	<0.18	*7*	**70**
1,1,1-Trichloroethane	ND	---	0.8	---	ND	ND	<0.28	39	3.3	ND		<0.50	<0.50	<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	<0.50	0.34 J	<0.24	0.37 J	<0.24	3.9	<0.50	*40*	**200**
1,1,2,2-Tetrachloroethane		---	ND	---	ND	ND	---	---	---	ND		<0.25	<0.25	<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	<0.25	<0.28	<0.28	<0.28	<0.28	<0.25	<0.25	*0.02*	**0.2**
1,1,2-Trichloroethane		---	ND	---	ND	ND	<0.76	*1.1*	**7.8**	ND		<0.20	<0.20	<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	<0.20	<0.55	<0.55	<0.55	<0.55	<0.20	<0.20	*0.5*	**5**
1,1-Dichloroethane	ND	ND	23.4	1.08	1.0	ND	<0.16	*670*	<0.16	0.86		<0.24	<0.24	<0.27	<0.27	<0.27	0.13		<0.24	<0.24	<0.27	<0.27	<0.27	<0.24	<0.27	<0.27	<0.27	<0.24	<0.27	<0.27	<0.27	0.48 J	<0.24	<0.24	*85*	**850**
1,1-Dichloroethene		---	ND	---	ND	ND	<0.19	**17**	**26**	ND		<0.41	<0.41	<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	<0.41	<0.24	<0.24	<0.24	*1.0*	<0.41	<0.41	*0.7*	**7**
1,1-Dichloropropene		---	ND	---	ND	ND	---	---	---	ND		<0.44	<0.44	<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	<0.44	<0.54	<0.54	<0.54	<0.54	<0.44	<0.44	NS	NS
1,2,3-Trichlorobenzene		---	ND	---	ND	ND	---	---	---	ND		<2.1	<2.1	<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	<2.1	<0.63	<0.63	<0.63	<0.63	<2.1	<2.1	NS	NS
1,2,3-Trichloropropane		---	ND	---	ND	ND	---	---	---	ND		<0.50	<0.50	<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	<0.50	<0.59	<0.59	<0.59	<0.59	<0.50	<0.50	*12*	**60**
1,2,4-Trichlorobenzene		---	ND	---	ND	ND	---	---	---	ND		<2.2	<2.2	<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	<2.2	<0.95	<0.95	<0.95	<0.95	<2.2	<2.2	*14*	**70**
1,2,4-Trimethylbenzene		---	ND	---	ND	ND	0.27	0.95	0.41	6.4		<0.50	<0.50	<0.84	<0.84	<0.84	<0.10		<0.50	<0.50	<0.84	<0.84	<0.84	<0.50	<0.84	<0.84	<0.84	<0.50	<0.84	<0.84	<0.84	<0.84	<0.50	<0.50	*NS*	**NS**
1,2-Dibromo-3-chloropropane		---	ND	---	ND	ND	<0.16	<0.16	<0.16	ND		<2.2	<2.2	<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	<2.2	<1.8	<1.8	<1.8	<1.8	<2.2	<2.2	*0.02*	**0.2**
1,2-Dibromoethane (EDB)		---	ND	---	ND	ND	---	---	---	ND		<0.18	<0.18	<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	<0.18	<0.83	<0.83	<0.83	<0.83	<0.18	<0.18	*0.005*	**0.05**
1,2-Dichlorobenzene		---	ND	---	ND	ND	---	---	---	0.40		<0.50	<0.50	<0.71	<0.71	<0.71	<0.2		<0.50	<0.50	<0.71	<0.71	<0.71	<0.50	<0.71	<0.71	<0.71	<0.50	<0.71	<0.71	<0.71	<0.71	<0.50	<0.50	*60*	**600**
1,2-Dichloroethane	ND	---	*3.3*	---	ND	*2.5*	<0.33	**17**	**300**	0.4		<0.17	<0.17	<0.28	<0.28	<0.28	<0.2		<0.17	<0.17	<0.28	<0.28	<0.28	<0.17	<0.28	<0.28	<0.28	<0.17	<0.28	<0.28	<0.28	<0.28	<0.17	<0.17	*0.5*	**5**
1,2-Dichloropropane		---	ND	---	ND	ND	---	---	---	ND		<0.23	<0.23	<0.28	<0.28	<0.28	ND		<0.23	<0.23	<0.28	<0.28	<0.28	<0.23	<0.28	<0.28	<0.28	<0.23	<0.28	<0.28	<0.28	<0.28	<0.23	<0.23	*0.5*	**5**
1,3,5-Trimethylbenzene		---	ND	---	ND	ND	0.21	0.33	<0.19	1.7		<0.50	<0.50	<0.87	<0.87	<0.87	<0.1		<0.50	<0.50	<0.87	<0.87	<0.87	<0.50	<0.87	<0.87	<0.87	<0.50	<0.87	<0.87	<0.87	<0.87	<0.50	<0.50	NS	NS
1,3-Dichlorobenzene		---	ND	---	ND	ND	---	---	---	0.16		<0.50	<0.50	<0.63	<0.63	<0.63	<0.1		<0.50	<0.50	<0.63	<0.63	<0.63	<0.50	<0.63	<0.63	<0.63	<0.50	<0.63	<0.63	<0.63	<0.63	<0.50	<0.50	*120*	**600**
1,3-Dichloropropane		---	ND	---	ND	ND	---	---	---	ND		<0.50	<0.50	<0.83	<0.83	<0.83	ND		<0.50	<0.50	<0.83	<0.83	<0.83	<0.50	<0.83	<0.83	<0.83	<0.50	<0.83	<0.83	<0.83	<0.83	<0.50	<0.50	NS	NS
1,4-Dichlorobenzene		---	ND	---	ND	ND	---	---	---	0.5		0.63 J	0.76 J	<0.94	<0.94	<0.94	<0.1		<0.50	<0.50	<0.94	<0.94	<0.94	<0.50	<0.94	<0.94	<0.94	<0.50	<0.94	<0.94	<0.94	<0.94	<0.50	<0.50	*15*	**75**
2,2-Dichloropropane		---	ND	---	ND	ND	---	---	---	ND		<0.48	<0.48	<2.3	<2.3	<2.3	ND		<0.48	<0.48	<2.3	<2.3	<2.3	<0.48	<2.3	<2.3	<2.3	<0.48	<2.3	<2.3	<2.3	<2.3	<0.48	<0.48	NS	NS
2-Chlorotoluene		---	ND	---	ND	ND	---	---	---	ND		<0.50	<0.50	<0.93	<0.93	<0.93	ND		<0.50	<0.50	<0.93	<0.93	<0.93	<0.50	<0.93	<0.93	<0.93	<0.50	<0.93	<0.93	<0.93	<0.93	<0.50	<0.50	NS	NS
4-Chlorotoluene		---	ND	---	ND	ND	---	---	---	ND		<0.21	<0.21	<0.76	<0.76	<0.76	ND		<0.21	<0.21	<0.76	<0.76	<0.76	<0.21	<0.76	<0.76	<0.76	<0.21	<0.76	<0.76	<0.76	<0.76	<0.21	<0.21	NS	NS
Benzene	ND	ND	*1.1*	*0.97*	*1.2*	**93.5**	<0.14	**5.1**	**12**	*4.4*	*3.2*	*3.9*	**5.7**	*3.9*	*4.6*	*4.2*	*2.5*		<0.50	<0.50	<0.25	<0.25	<0.25	*1.3*	0.27 J	<0.25	<0.25	<0.50	<0.25	<0.25	<0.25	0.34 J	<0.50	**8.4**	*0.5*	**5**
Bromobenzene		---	ND	---	ND	ND	---	---	---	ND		<0.23	<0.23	<0.24	<0.24	<0.24	ND		<0.23	<0.23	<0.24	<0.24	<0.24	<0.23	<0.24	<0.24	<0.24	<0.23	<0.24	<0.24	<0.24	<0.24	<0.23	<0.23	NS	NS
Bromochloromethane		---	ND	---	ND	ND	<0.14	31	<0.14	ND		<0.34	<0.34	<0.36	<0.36	<0.36	ND		<0.34	<0.34	<0.36	<0.36	<0.36	<0.34	<0.36	<0.36	<0.36	<0.34	<0.36	<0.36	<0.36	<0.36	<0.34	<0.34	NS	NS
Bromodichloromethane		---	ND	---	ND	ND	---	---	---	ND		<0.50	<0.50	<0.36	<0.36	<0.36	ND		<0.50	<0.50	<0.36	<0.36	<0.36	<0.50	<0.36	<0.36	<0.36	<0.50	<0.36	<0.36	<0.36	<0.36	<0.50	<0.50	*0.06*	**0.6**
Bromoform		---	ND	---	ND	ND	---	---	---	ND		<0.50	<0.50	<4.0	<4.0	<4.0	ND		<0.50	<0.50	<4.0	<4.0	<4.0	<0.50	<4.0	<4.0	<4.0	<0.50	<4.0	<4.0	<4.0	<4.0	<0.50	<0.50	*0.44*	**4.4**
Bromomethane		---	ND	---	ND	15*	---	---	---	ND		<2.4	<2.4	<0.97	<0.97	<0.97	ND		<2.4	<2.4	<0.97	<0.97	<0.97	<2.4	<0.97	<0.97	<0.97	<2.4	<0.97	<0.97	<0.97	<0.97	<2.4	<2.4	*1*	**10**
Carbon tetrachloride		---	ND	---	ND	ND	---	---	---	ND		<0.50	<0.50	<0.17	<0.17	<0.17	ND		<0.50	<0.50	<0.17	<0.17	<0.17	<0.50	<0.17	<0.17	<0.17	<0.50	<0.17	<0.17	<0.17	<0.17	<0.50	<0.50	*0.5*	**5**
Chlorobenzene	ND	---	ND	---	ND	ND	<0.14	0.31	0.79	0.38		<0.50	<0.50	<0.71	<0.71	<0.71	<0.1		<0.50	<0.50	<0.71	<0.71	<0.71	<0.50	<0.71	<0.71	<0.71	<0.50	<0.71	<0.71	<0.71	<0.71	<0.50	<0.50	NS	NS
Chloroethane		---	ND	---	ND	15*	<0.13	*120*	26	ND		<0.37	<0.37	<1.3	<1.3	<1.3	ND		<0.37	<0.37	<1.3	<1.3	<1.3	<0.37	<1.3	<1.3	<1.3	<0.37	<1.3	<1.3	<1.3	<1.3	<0.37	<0.37	*80*	**400**
Chloroform		---	ND	---	ND	ND	<0.69	<0.69	<0.69	<0.1		<2.5	<2.5	<1.3	<1.3	<1.3	<0.1		<2.5	<2.5	<1.3	<1.3	<1.3	<2.5	<1.3	<1.3	<1.3	<2.5	<1.3	<1.3	<1.3	<1.3	<2.5	<2.5	*0.6*	**6**
Chloromethane		---	ND	---	ND	ND	0.29	<0.16	<0.16	0.34		<0.50	<0.50	<2.2	<2.2	<2.2	0.32		<0.50	<0.50	<2.2	<2.2	<2.2	<0.50	<2.2	<2.2	<2.2	<0.50	<2.2	<2.2	<2.2	<2.2	<0.50	<0.50	*3*	**30**
Dibromochloromethane		---	ND	---	ND	ND	---	---	---	ND		<0.50	<0.50	<2.6	<2.6	<2.6	ND		<0.50	<0.50	<2.6	<2.6	<2.6	<0.50	<2.6	<2.6	<2.6	<0.50	<2.6	<2.6	<2.6	<2.6	<0.50	<0.50	*6*	**60**
Dibromomethane		---	ND	---	ND	ND	---	---	---	ND		<0.43	<0.43	<0.94	<0.94	<0.94	ND		<0.43	<0.43	<0.94	<0.94	<0.94	<0.43	<0.94	<0.94	<0.94	<0.43	<0.94	<0.94	<0.94	<0.94	<0.43	<0.43	NS	NS
Dichlorodifluoromethane		---	ND	---	ND	ND	---	---	---	ND		<0.22	<0.22	<0.50	<0.50	<0.50	ND		<0.22	<0.22	<0.50	<0.50	<0.50	<0.22	<0.50	<0.50	<0.50	<0.22	<0.50	<0.50	<0.50	<0.50	<0.22	<0.22	*200*	**1,000**
Diisopropyl ether		---	ND	---	ND	ND	---	---	---	ND		<0.50	<0.50	<1.9	<1.9	<1.9	ND		<0.50	<0.50	<1.9	<1.9	<1.9	<0.50	<1.9	<1.9	<1.9	<0.50	<1.9	<1.9	<1.9	<1.9	<0.50	<0.50	NS	NS
Ethylbenzene	ND	---	ND	---	ND	**8500**	<0.15	33	0.16	1.3		<0.50	<0.50	<0.22	<0.22	<0.22	<0.1		<0.50	<0.50	<0.22	<0.22	<0.22	<0.50	<0.22	<0.22	<0.22	<0.50	<0.22	<0.22	<0.22	<0.22	<0.50	<0.50	*140*	**700**
Hexachloro-1,3-butadiene		---	ND	---	ND	ND	---	---	---	ND		<2.1	<2.1	<1.2	<1.2	<1.2	ND		<2.1	<2.1	<1.2	<1.2	<1.2	<2.1	<1.2	<1.2	<1.2	<2.1	<1.2	<1.2	<1.2	<1.2	<2.1	<2.1	NS	NS
Isopropylbenzene (Cumene)		---	ND	---	ND	ND	<0.17	0.58	0.26	5.4		2.9	2	2.1	2.2 J	1.4 J	<0.1		<0.14	<0.14	<0.39	<0.39	<0.39	<0.14	<0.39	<0.39	<0.39	<0.14	<0.39	<0.39	<0.39	<0.39	<0.14	<0.14	NS	NS
Methyl-tert-butyl ether		---	ND	---	ND	ND	7.2	<0.17	<0.17	2.3	5.7	<0.17	1.4	<1.2	<1.2	<1.2	2.3	2.8	0.97 J	1.5	<1.2	<1.2	<1.2	1.7	4.8	8.7	2.0 J	<0.17	<1.2	<1.2	<1.2	<1.2	<0.17	<0.17	*12*	**60**
Methylene Chloride	ND	---	*4.6*	---	*2.7*	*4.1*	<0.29	<0.29	<0.29	ND		<0.23	<0.23	<0.58	<0.58	<0.58	ND		<0.23	<0.23	<0.58	<0.58	<0.58	<0.23	<0.58	<0.58	<0.58	<0.23	<0.58	<0.58	<0.58	<0.58	<0.23	<0.23	*0.5*	**5**
Naphthalene		---	ND	---	ND	ND	0.88	1.1	0.91	*26*		<2.5	<2.5	<1.2	<1.2	<1.2	<0.2		<2.5	<2.5	<1.2	<1.2	<1.2	<2.5	<1.2	<1.2	<1.2	<2.5	<1.2	<1.2	<1.2	<1.2	<2.5	<2.5	*10*	**100**
Styrene		---	ND	---	ND	ND	<0.17	<0.17	<0.17	ND		<0.50	<0.50	<0.47	<0.47	<0.47	ND		<0.50	<0.50	<0.47	<0.47	<0.47	<0.50	<0.47	<0.47	<0.47	<0.50	<0.47	<0.47	<0.47	<0.47	<0.50	<0.50	*10*	**100**
Tetrachloroethene	ND	---	ND	---	ND	*2*	<0.15	<0.15	<0.15	<0.1		<0.50	<0.50	<0.33	<0.33	<0.33	<0.1		<0.50	<0.50	<0.33	<0.33	<0.33	<0.50	<0.33	<0.33	<0.33	<0.50	0.37 J	*0.81 J*	0.44 J	<0.33	*1.3*	<0.50	*0.5*	**5**
Toluene	ND	ND	ND	1.2	ND	**802**	0.8	81	*270*	1.7		<0.50	<0.50	<0.17	0.55 J	<0.17	<0.2		<0.50	<0.50	<0.17	0.17 J	<0.17	<0.50	<0.17	<0.17	<0.17	<0.50	<0.17	<0.17	<0.17	0.29 J	<0.50	<0.50	*160*	**800**
Trichloroethene		---	**8.9**	---	ND	*0.9*	*0.93*	*0.8*	**25**	ND		<0.33	<0.33	<0.26	<0.26	<0.26	ND		<0.33	<0.33	<0.26	<0.26	<0.26	<0.33	<0.26	<0.26	<0.26	*4.5*	*3*	*4.3*	*3.2*	0.35 J	**15.4**	<0.33	*0.5*	**5**
Trichlorofluoromethane	osed NR 1	---	ND	---	ND	ND	<0.18	0.37	2.4	ND		<0.18	<0.18	<0.21	<0.21	<0.21	ND		<0.18	<0.18	<0.21	<0.21	<0.21	<0.18	<0.21	<0.21	<0.21	<0.18	<0.21	<0.21	<0.21	<0.21	<0.18	<0.18	*698*	**3,490**
Vinyl chloride	sed NR 14	---	**31.3**	---	ND	ND	<0.29	**2400**	**370**	**0.33**		<0.18	<0.18	<0.17	<0.17	<0.17	<0.1		<0.18	<0.18	<0.17	<0.17	<0.17	<0.18	<0.17	<0.17	<0.17	<0.18	<0.17	<0.17	<0.17	**49.8**	<0.18	<0.18	*0.02*	**0.2**
cis-1,2-Dichloroethene	ND	---	_38.9**_	---	1**	6.9**	1.5	**2600**	**4500**	4.1		<0.26	<0.26	<0.27	<0.27	<0.27	<0.2		<0.26	<0.26	<0.27	<0.27	<0.27	0.46 J	<0.27	<0.27	<0.27	<0.26	<0.27	<0.27	<0.27	**503**	<0.26	0.34 J	*7*	**70**
cis-1,3-Dichloropropene		---	ND	---	ND	ND	---	---	---	ND		<0.50	<0.50	<3.6	<3.6	<3.6	ND		<0.50	<0.50	<3.6	<3.6	<3.6	<0.50	<3.6	<3.6	<3.6	<0.50	<3.6	<3.6	<3.6	<3.6	<0.50	<0.50	*0.04*	**0.4**
n-Butylbenzene		---	ND	---	ND	ND	<0.23	<0.23	<0.23	1.3		0.72 J	<0.50	<0.71	0.82 J	<0.71	<0.1		<0.50	<0.50	<0.71	<0.71	<0.71	<0.50	<0.71	<0.71	<0.71	<0.50	<0.71	<0.71	<0.71	<0.47	<0.50	<0.50	NS	NS
n-Propylbenzene		---	ND	---	ND	ND	<0.16	<0.16	<0.16	2.7		<0.50	<0.50	<0.81	<0.81	<0.81	<0.1		<0.50	<0.50	<0.81	<0.81	<0.81	<0.50	<0.81	<0.81	<0.81	<0.50	<0.81	<0.81	<0.81	<0.71	<0.50	<0.50	NS	NS
p-Isopropyltoluene		---	ND	---	ND	ND	<0.25	<0.25	<0.25	6.8		<0.50	<0.50	<0.80	<0.80	<0.80	<0.1		<0.50	<0.50	<0.80	<0.80	<0.80	<0.50	<0.80	<0.80	<0.80	<0.50	<0.80	<0.80	<0.80	<0.81	<0.50	<0.50	NS	NS
sec-Butylbenzene		---	ND	---	ND	ND	1.3	0.71	<0.18	0.86		<2.2	<2.2	<0.85	0.87 J	<0.85	<0.2		<2.2	<2.2	<0.85	<0.85	<0.85	<2.2	<0.85	<0.85	<0.85	<2.2	<0.85	<0.85	<0.85	<0.26	<2.2	<2.2	NS	NS
tert-Butylbenzene		---	ND	---	ND	ND	0.59	0.54	0.5	0.23		<0.18	0.28 J	<0.30	<0.30	<0.30	<0.1		<0.18	<0.18	<0.30	<0.30	<0.30	<0.18	<0.30	<0.30	<0.30	<0.18	<0.30	<0.30	<0.30	<0.80	<0.18	<0.18	NS	NS
trans-1,2-Dichloroethene		---	ND	---	ND	ND	0.35	*33*	*85*	0.19		<0.26	<0.26	<1.1	<1.1	<1.1	<0.1		<0.26	<0.26	<1.1	<1.1	<1.1	<0.26	<1.1	<1.1	<1.1	<0.26	<1.1	<1.1	<1.1	<0.85	<0.26	<0.26	*20*	**100**
trans-1,3-Dichloropropene		---	ND	---	ND	ND	---	---	---	ND		<0.23	<0.23	<4.4	<4.4	<4.4	ND		<0.23	<0.23	<4.4	<4.4	<4.4	<0.23	<4.4	<4.4	<4.4	<0.23	<4.4	<4.4	<4.4	<0.30	<0.23	<0.23	*0.04*	**0.4**
Total Trimethylbenzenes		---	ND	---	ND	ND	0.48	1.28	<0.60	8.1		<0.50	<1.0	<1.71	<1.71	<1.71	ND		<0.50	<1.0	<1.71	<1.71	<1.71	<1.0	<1.71	<1.71	<1.71	<1.0	<1.71	<1.71	<1.71	16.3	<0.50	<0.50	*96*	**480**
Total Xylenes		---	ND	---	ND	**34000**	<0.42	119	0.32	71.67		<1.5	<1.5	<0.73	<0.73	<0.73	<0.1		<1.5	<1.5	<0.73	<0.73	<0.73	<1.5	<0.73	<0.73	<0.73	<1.5	<0.73	<0.73	<0.73	<4.4	<1.5	<1.5	*400*	**2,000**

All values expressed in µg/L (micrograms 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 NR 140 Enforcement Standard Exceedance

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 lower PAL and ES values compared to trans-1,2-DCE
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

	North, Vacant Lot																													
Well ID	Permanent Wells										Temp. Well		Nested Wells MW-3B & PZ-1				Permanent Wells												**NR 140 PAL**	**NR 140 ES**
	MW-2							**MW-3**			**SD-5**		**MW-3B**			**PZ-1**	**MW-5**							**MW-6**						
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	9/26/19	9/26/19	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		
Detected Volatile Organic Compounds (µg/L)																														
1,1,1,2-Tetrachloroethane	ND		<0.18	<0.18	<0.27	<0.27	<0.27	ND		Not Located, Destroyed - Reference nearby well, SD-5 (converted to MW-3B on 10/9/18)	<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	*7*	**70**
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	*40*	**200**
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	*0.02*	**0.2**
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	*0.5*	**5**
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	<0.27	0.86 J	<1.5		<0.24	<0.24	<0.27	<0.27	<0.27	0.39 J	0.45 J	0.90 J	0.36 J	<0.27	*85*	**850**
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	*0.7*	**7**
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	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	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	*12*	**60**
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	*14*	**70**
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	*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	*0.02*	**0.2**
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	*0.005*	**0.05**
1,2-Dichlorobenzene	<0.2		<0.50	<0.50	<0.71	<0.71	<0.71	0.93			<0.50	<0.71	<0.71	<0.71	<0.71	<0.71	<2.9		<0.50	0.84 J	<0.71	<0.71	<0.71	<0.50	<0.71	<0.71	<0.71	<0.71	*60*	**600**
1,2-Dichloroethane	<0.2		<0.17	<0.17	<0.28	<0.28	<0.28	<0.2			<0.17	<0.28	<0.28	<0.28	<0.28	<0.28	<2.2		<0.17	<0.17	<0.28	<0.28	<0.28	<0.17	<0.28	<0.28	<0.28	<0.28	*0.5*	**5**
1,2-Dichloropropane	ND		<0.23	<0.23	<0.28	<0.28	<0.28	ND			<0.23	<0.28	<0.28	<0.28	<0.28	<0.28	ND		<0.23	<0.23	<0.28	<0.28	<0.28	<0.23	<0.28	<0.28	<0.28	<0.28	*0.5*	**5**
1,3,5-Trimethylbenzene	0.11		<0.50	<0.50	<0.87	<0.87	<0.87	<0.1			<0.50	<0.87	<0.87	<0.87	<0.87	<0.87	15		<0.50	<0.50	<0.87	<0.87	<0.87	<0.50	<0.87	<0.87	<0.87	<0.87	NS	NS
1,3-Dichlorobenzene	<0.1		<0.50	<0.50	<0.63	<0.63	<0.63	<0.1			<0.50	<0.63	<0.63	<0.63	<0.63	<0.63	<1.3		<0.50	<0.50	<0.63	<0.63	<0.63	<0.50	<0.63	<0.63	<0.63	<0.63	*120*	**600**
1,3-Dichloropropane	ND		<0.50	<0.50	<0.83	<0.83	<0.83	ND			<0.50	<0.83	<0.83	<0.83	<0.83	<0.83	ND		<0.50	<0.50	<0.83	<0.83	<0.83	<0.50	<0.83	<0.83	<0.83	<0.83	NS	NS
1,4-Dichlorobenzene	<0.1		<0.50	<0.50	<0.94	<0.94	<0.94	0.32			<0.50	<0.94	<0.94	<0.94	<0.94	<0.94	<2.1		<0.50	<0.50	<0.94	<0.94	<0.94	<0.50	<0.94	<0.94	<0.94	<0.94	*15*	**75**
2,2-Dichloropropane	ND		<0.48	<0.48	<2.3	<2.3	<2.3	ND			<0.48	<2.3	<2.3	<2.3	<2.3	<2.3	ND		<0.48	<0.48	<2.3	<2.3	<2.3	<0.48	<2.3	<2.3	<2.3	<2.3	NS	NS
2-Chlorotoluene	ND		<0.50	<0.50	<0.93	<0.93	<0.93	ND			<0.50	<0.93	<0.93	<0.93	<0.93	<0.93	ND		<0.50	<0.50	<0.93	<0.93	<0.93	<0.50	<0.93	<0.93	<0.93	<0.93	NS	NS
4-Chlorotoluene	ND		<0.21	<0.21	<0.76	<0.76	<0.76	ND			<0.21	<0.76	<0.76	<0.76	<0.76	<0.76	ND		<0.21	<0.21	<0.76	<0.76	<0.76	<0.21	<0.76	<0.76	<0.76	<0.76	NS	NS
Benzene	0.35	*0.7*	*0.59 J*	<0.50	0.42 J	0.47 J	0.26 J	*4.7*	*2.3*		*0.51 J*	<0.25	<0.25	<0.25	<0.25	0.34 J	**10**	**18 J**	*4*	**5.5**	*2.4*	*2.1*	<0.25	*1.3*	*3.9*	*3.4*	*2.6*	*1.3*	*0.5*	**5**
Bromobenzene	ND		<0.23	<0.23	<0.24	<0.24	<0.24	ND			<0.23	<0.24	<0.24	<0.24	<0.24	<0.24	ND		<0.23	<0.23	<0.24	<0.24	<0.24	<0.23	<0.24	<0.24	<0.24	<0.24	NS	NS
Bromochloromethane	ND		<0.34	<0.34	<0.36	<0.36	<0.36	ND			<0.34	<0.36	<0.36	<0.36	<0.36	<0.36	ND		<0.34	<0.34	<0.36	<0.36	<0.36	<0.34	<0.36	<0.36	<0.36	<0.36	NS	NS
Bromodichloromethane	ND		<0.50	<0.50	<0.36	<0.36	<0.36	ND			<0.50	<0.36	<0.36	<0.36	<0.36	<0.36	ND		<0.50	<0.50	<0.36	<0.36	<0.36	<0.50	<0.36	<0.36	<0.36	<0.36	*0.06*	**0.6**
Bromoform	ND		<0.50	<0.50	<4.0	<4.0	<4.0	ND			<0.50	<4.0	<4.0	<4.0	<4.0	<4.0	ND		<0.50	<0.50	<4.0	<4.0	<4.0	<0.50	<4.0	<4.0	<4.0	<4.0	*0.44*	**4.4**
Bromomethane	ND		<2.4	<2.4	<0.97	<0.97	<0.97	ND			<2.4	<0.97	<0.97	<0.97	<0.97	<0.97	ND		<2.4	<2.4	<0.97	<0.97	<0.97	<2.4	<0.97	<0.97	<0.97	<0.97	*1*	**10**
Carbon tetrachloride	ND		<0.50	<0.50	<0.17	<0.17	<0.17	ND			<0.50	<0.17	<0.17	<0.17	<0.17	<0.17	ND		<0.50	<0.50	<0.17	<0.17	<0.17	<0.50	<0.17	<0.17	<0.17	<0.17	*0.5*	**5**
Chlorobenzene	<0.1	0.50	<0.50	<0.50	<0.71	<0.71	<0.71	6.5	4.1J		0.95 J	<0.71	<0.71	<0.71	<0.71	0.82 J	<1.2		0.61 J	1.3	0.73 J	<0.71	<0.71	1.1	2.0 J	2.2 J	1.9 J	1.8 J	NS	NS
Chloroethane	ND	0.50	<0.37	<0.37	<1.3	<1.3	<1.3	ND	7.9		<0.37	<1.3	<1.3	<1.3	<1.3	<1.3	ND		<0.37	<0.37	<1.3	<1.3	<1.3	<0.37	<1.3	<1.3	<1.3	<1.3	*80*	**400**
Chloroform	<0.1		<2.5	<2.5	<1.3	<1.3	<1.3	<0.1			<2.5	<1.3	<1.3	<1.3	<1.3	<1.3	*1.9*		<2.5	<2.5	<1.3	<1.3	<1.3	<2.5	<1.3	<1.3	<1.3	<1.3	*0.6*	**6**
Chloromethane	0.35		<0.50	<0.50	<2.2	<2.2	<2.2	0.67			<0.50	<2.2	<2.2	<2.2	<2.2	<2.2	<4.0		<0.50	<0.50	<2.2	<2.2	<2.2	<0.50	<2.2	<2.2	<2.2	<2.2	*3*	**30**
Dibromochloromethane	ND		<0.50	<0.50	<2.6	<2.6	<2.6	ND			<0.50	<2.6	<2.6	<2.6	<2.6	<2.6	ND		<0.50	<0.50	<2.6	<2.6	<2.6	<0.50	<2.6	<2.6	<2.6	<2.6	*6*	**60**
Dibromomethane	ND		<0.43	<0.43	<0.94	<0.94	<0.94	ND			<0.43	<0.94	<0.94	<0.94	<0.94	<0.94	ND		<0.43	<0.43	<0.94	<0.94	<0.94	<0.43	<0.94	<0.94	<0.94	<0.94	NS	NS
Dichlorodifluoromethane	ND		<0.22	<0.22	<0.50	<0.50	<0.50	ND			<0.22	<0.50	<0.50	<0.50	<0.50	<0.50	ND		<0.22	<0.22	<0.50	<0.50	<0.50	<0.22	<0.50	<0.50	<0.50	<0.50	*200*	**1,000**
Diisopropyl ether	ND		<0.50	<0.50	<1.9	<1.9	<1.9	ND			<0.50	<1.9	<1.9	<1.9	<1.9	<1.9	ND		<0.50	<0.50	<1.9	<1.9	<1.9	<0.50	<1.9	<1.9	<1.9	<1.9	NS	NS
Ethylbenzene	<0.1		<0.50	<0.50	<0.22	<0.22	<0.22	0.26			<0.50	<0.22	<0.22	<0.22	<0.22	<0.22	5.9		<0.50	<0.50	<0.22	<0.22	<0.22	<0.50	<0.22	<0.22	<0.22	<0.22	*140*	**700**
Hexachloro-1,3-butadiene	ND		<2.1	<2.1	<1.2	<1.2	<1.2	ND			<2.1	<1.2	<1.2	<1.2	<1.2	<1.2	ND		<2.1	<2.1	<1.2	<1.2	<1.2	<2.1	<1.2	<1.2	<1.2	<1.2	NS	NS
Isopropylbenzene (Cumene)	0.32	0.50	<0.14	0.17 J	<0.39	<0.39	<0.39	10			<0.14	2.4	0.44 J	<0.39	3.6 J	<0.39	120	22J	11.9	24	12.3	11.9	0.42 J	0.19 J	<0.39	<0.39	<0.39	<0.39	NS	NS
Methyl-tert-butyl ether	0.95	0.57	<0.17	<0.17	<1.2	<1.2	<1.2	<0.3			<0.17	<1.2	<1.2	<1.2	<1.2	<1.2	<1.6		<0.17	<0.17	<1.2	<1.2	<1.2	<0.17	<1.2	<1.2	<1.2	<1.2	*12*	**60**
Methylene Chloride	ND		<0.23	<0.23	<0.58	<0.58	<0.58	ND			<0.23	<0.58	<0.58	<0.58	<0.58	<0.58	ND		<0.23	<0.23	<0.58	<0.58	<0.58	<0.23	<0.58	<0.58	<0.58	<0.58	*0.5*	**5**
Naphthalene	<0.2		<2.5	<2.5	<1.2	<1.2	<1.2	<0.2			<2.5	<1.2	<1.2	<1.2	<1.2	<1.2	*51*		<2.5	<2.5	<1.2	<1.2	<1.2	<2.5	<1.2	<1.2	<1.2	<1.2	*10*	**100**
Styrene	ND		<0.50	<0.50	<0.47	<0.47	<0.47	ND			<0.50	<0.47	<0.47	<0.47	<0.47	<0.47	ND		<0.50	<0.50	<0.47	<0.47	<0.47	<0.50	<0.47	<0.47	<0.47	<0.47	*10*	**100**
Tetrachloroethene	<0.1		<0.50	<0.50	<0.33	<0.33	<0.33	0.15			**5**	*2.4*	**14.7**	**21.2**	**8.8**	<0.33	<1.5		<0.50	<0.50	<0.33	<0.33	<0.33	<0.50	<0.33	<0.33	<0.33	<0.33	*0.5*	**5**
Toluene	<0.2		<0.50	<0.50	<0.17	0.22 J	<0.17	0.64			<0.50	<0.17	<0.17	<0.17	<0.17	0.49 J	<1.4		<0.50	0.63 J	<0.17	<0.17	<0.17	<0.50	<0.17	0.32 J	0.22 J	<0.17	*160*	**800**
Trichloroethene	ND		<0.33	<0.33	0.42 J	*0.57 J*	<0.26	ND			0.38 J	0.28 J	*3.7*	*4.8*	*1.9*	<0.26	ND		*0.57 J*	<0.33	0.38 J	0.42 J	0.33 J	<0.33	<0.26	<0.26	<0.26	<0.26	*0.5*	**5**
Trichlorofluoromethane	ND		<0.18	<0.18	<0.21	<0.21	<0.21	ND			<0.18	<0.21	<0.21	<0.21	<0.21	<0.21	ND		<0.18	<0.18	<0.21	<0.21	<0.21	<0.18	<0.21	<0.21	<0.21	<0.21	*698*	**3,490**
Vinyl chloride	**0.46**	**0.28J**	<0.18	*0.18 J*	<0.17	<0.17	<0.17	**4.8**	**27**		**0.27 J**	**1**	**1.3**	**0.47 J**	**1.4**	**0.43 J**	<1.8		<0.18	**0.22 J**	<0.17	<0.17	<0.17	**0.70 J**	**1.6**	**4.7**	**1.3**	**1.0**	*0.02*	**0.2**
cis-1,2-Dichloroethene	<0.2	0.50	<0.26	0.48 J	0.43 J	0.55 J	0.29 J	0.42	*16*		0.34 J	0.33 J	2.5	6.8	2.2	1.9	<2.8		<0.26	<0.26	<0.27	0.33 J	<0.27	1	0.35 J	3.6	0.53 J	1.2	*7*	**70**
cis-1,3-Dichloropropene	ND		<0.50	<0.50	<3.6	<3.6	<3.6	ND			<0.50	<3.6	<3.6	<3.6	<3.6	<3.6	ND		<0.50	<0.50	<3.6	<3.6	<3.6	<0.50	<3.6	<3.6	<3.6	<3.6	*0.04*	**0.4**
n-Butylbenzene	<0.1		<0.50	<0.50	<0.71	<0.71	<0.71	4.7			<0.50	<0.71	<0.71	<0.71	<0.47	<0.47	95		3.3	6.2	3.4	3.2	<0.71	<0.50	<0.71	<0.71	<0.71	<0.47	NS	NS
n-Propylbenzene	0.15		<0.50	<0.50	<0.81	<0.81	<0.81	14			<0.50	<0.81	<0.81	<0.81	<0.71	<0.71	250		19.4	45	20.9	19.8	<0.81	<0.50	<0.81	<0.81	<0.81	<0.71	NS	NS
p-Isopropyltoluene	0.72		<0.50	<0.50	<0.80	<0.80	<0.80	<0.1			<0.50	<0.80	<0.80	<0.80	<0.81	<0.81	28		<0.50	<0.50	<0.80	<0.80	<0.80	<0.50	<0.80	<0.80	<0.80	<0.81	NS	NS
sec-Butylbenzene	0.47		<2.2	<2.2	<0.85	<0.85	<0.85	8.7			<2.2	<0.85	<0.85	<0.85	<0.26	<0.26	140		9.9	18.3	9	9.4	<0.85	<2.2	<0.85	<0.85	<0.85	<0.26	NS	NS
tert-Butylbenzene	1		<0.18	0.21 J	<0.30	<0.30	<0.30	3			0.79 J	3.3	1.9	<0.30	<0.80	<0.80	25		3.6	5.3	3.7	3.9	1.1	<0.18	<0.30	<0.30	<0.30	<0.80	NS	NS
trans-1,2-Dichloroethene	<0.1		<0.26	<0.26	<1.1	<1.1	<1.1	<0.1			<0.26	1.8 J	2.4 J	1.4 J	2.1 J	<0.85	<4.0		<0.26	<0.26	<1.1	<1.1	<1.1	<0.26	<1.1	<1.1	<1.1	<0.85	*20*	**100**
trans-1,3-Dichloropropene	ND		<0.23	<0.23	<4.4	<4.4	<4.4	ND			<0.23	<4.4	<4.4	<4.4	4.6	<0.30	ND		<0.23	<0.23	<4.4	<4.4	<4.4	<0.23	<4.4	<4.4	<4.4	<0.30	*0.04*	**0.4**
Total Trimethylbenzenes	0.22		<0.50	<1.0	<1.71	<1.71	<1.71	0.33			<1.0	<1.71	<1.71	<1.71	3.3 J	<1.1	*365*		<0.50	<1.0	<1.71	<1.71	<1.71	<1.0	<1.71	<1.71	<1.71	<1.1	*96*	**480**
Total Xylenes	<0.1		<1.5	<1.5	<0.73	<0.73	<0.73	0.62			<1.5	<0.73	<0.73	<0.73	<4.4	<4.4	40.4		<1.5	<1.5	<0.73	<0.73	<0.73	<1.5	<0.73	<0.73	<0.73	<4.4	*400*	**2,000**

All values expressed in µg/L (micrograms 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 NR 140 Enforcement Standard Exceedance

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 lower PAL and ES values compared to trans-1,2-DCE
Note: TW-2 did not yield groundwater during sampling events.

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

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

	North, Vacant Lot			Proposed DNR Standards		
Well ID	Nested Wells MW-3B & PZ-1					
	MW-3B	**PZ-1**	**MW-6**	**NR 140 PAL**	**NR 140 ES**	EPA Health Advisory Level
Collection Date	9/26/16	9/26/19	9/26/19			
PFAS Compounds (ng/L)						
Perfluorobutanoic Acid (PFBA)	<0.29	120	99	**	**	
Perfluoropentanoic Acid (PFPeA)	81	<0.42	<0.42	**	**	
Perfluorohexanoic Acid (PFHxA)	71	78	81	**	**	
Perfluoroheptanoic Acid (PFHpA)	56	50	57	**	**	
Perfluorooctanoic Acid (PFOA)	**62**	**280**	**200**	*2* *	**20** *	70
Perfluorononanoic Acid (PFNA)	<0.22	<0.23	2.8	**	**	
Perfluorodecanoic Acid (PFDA)	<0.26	<0.27	<0.26	**	**	
Perfluoroundecanoic Acid (PFUnA)	<0.91	<0.95	<0.94	**	**	
Perfluorododecanoic Acid (PFDoA)	<0.45	<0.48	<0.47	**	**	
Perfluorotridecanoic Acid (PFTriA)	<1.1	<1.1	<1.1	**	**	
Perfluorotetradecanoic Acid (PFTeA)	0.33 J	0.40 J	<0.25	**	**	
Perfluoro-n-hexadecanoic Acid (PFHxDA)	<0.73	<0.77	<0.76	**	**	
Perfluorobutanesulfonic Acid (PFBS)	<0.16	<0.17	<0.17	**	**	
Perfluoro-n-octadecanoic Acid (PFODA)	<0.38	<0.40	<0.39	**	**	
Perfluoropentanesulfonic Acid (PFPeS)	<0.25	21	16	**	**	
Perfluorohexanesulfonic Acid (PFHxS)	26	57	96	**	**	
Perfluoroheptanesulfonic Acid (PFHpS)	<0.16	8.3	7.8	**	**	
Perfluorooctanesulfonic Acid (PFOS)	*19*	**330**	**210**	*2* *	**20** *	70
Perfluorononanesulfonic Acid (PFNS)	<0.13	<0.14	<0.14	**	**	
Perfluorodecanesulfonic Acid (PFDS)	<0.26	<0.28	<0.27	**	**	
Perfluorooctanesulfonamide (FOSA)	0.45 J	0.44 J	<0.30	**	**	
N-methylperfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	<2.6	<2.7	<2.6	**	**	
N-ethylperfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	<1.6	96	7.2 J	**	**	
4:2 FTS	<4.3	<4.5	<4.4	**	**	
6:2 FTS	<1.6	<1.7	<1.7	**	**	
8:2 FTS	<1.6	<1.7	<1.7	**	**	
NEtFOSA	<0.72	<0.75	<0.74	**	**	
NMeFOSA	<0.35	<0.37	<0.37	**	**	
NMeFOSE	<1.2	<1.2	<1.2	**	**	
NEtFOSE	<0.70	<0.74	<0.73	**	**	
Perfluorododecanesulfonic Acid (PFDoS)	<0.37	<0.398	<0.38	**	**	
F-53B Major	<0.20	<0.21	<0.20	**	**	
HFPO-DA (GenX)	<1.2	<1.3	<1.3	**	**	
F-53B Minor	<0.26	<0.28	<0.27	**	**	
10:2 FTS	<0.16	<0.16	<0.16	**	**	
DONA	<0.15	<0.16	<0.15	**	**	

* **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.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
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
PZ-1	665.42	668.08	Nested with MW-3B	
9/26/19	Well screened	626.42	15.73	652.35
	to	621.42		
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
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
	to	629.47		

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

Soil Boring & Well Forms

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Revelopment ☒ Other ☐ _____

Page 1 of 1

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Saint Francis Auto Wreckers		PZ-1

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Adam Last Name: Sweet Firm: Horizon Construction & Exploration	09/05/2019 (m m d d y y y y)	09/05/2019 (m m d d y y y y)	Direct Push

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			_____ Feet MSL	_____ Feet MSL	2 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane _____ N, _____ E
NE 1/4 of NW 1/4 of Section 22, T 06 N, R 22 E

Lat ° ' "
Long ° ' "

Local Grid Location ☐ N ☐ E _____ Feet ☐ S _____ Feet ☐ W

Facility ID	County	County Code	Civil Town/City/or Village
241469250	Milwaukee	41	St. Francis

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (Below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
				Blind										
5'				Drill										
10'				to										
15'				20'										
20'				↓										
	60			3' sand 2' silt.				0		W				
25'	60			3.5' sand & gravel 1.5' silt				0		W				
30'	60			5' silt reddish color last 12"				0		W				
35'	60			1' silt 4' gravel some sand last 12" gray (organic odor)				0		W				
40'	60			1' as above 1' silt 3' gravel some sand				0		W				
45'														

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm
Dave Lennon	Moraine Environmental, Inc.

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☐ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Saint Francis Auto Wreckers	Local Grid Location of Well ☐ N. ☐ S. _____ ft. ☐ E. ☐ W. _____ ft.	Well Name: PZ-1
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No. / DNR Well ID No.
Facility ID: 241469250	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed: 09/05/2019 (m m d d y y y y)
Type of Well: Well Code ____/____	Section Location of Waste/Source: NE 1/4 of NW 1/4 of Sec. 22 T. 06 N, R. 22 ☒ E ☐ W	Well Installed By: Name (first, last) and Firm: Adam Sweet, Horizon Construction & Excavation
Distance from Waste/Source _____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number: _____

A. Protective pipe, top elevation +2.08 ft. MSL

B. Well casing, top elevation +2.6 ft. MSL

C. Land surface elevation 0 ft. MSL

D. Surface seal, bottom _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50; Hollow Stem Auger ☒ 41; Other ☐ _____

15. Drilling fluid used: Water ☐ 02; Air ☐ 01; Drilling Mud ☐ 03; None ☒ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis, if required):

_____

E. Bentonite seal, top _____ ft. MSL or 0 ft.

F. Fine sand, top _____ ft. MSL or ~35 ft.

G. Filter pack, top _____ ft. MSL or ~37 ft.

H. Screen joint, top _____ ft. MSL or ~39 ft.

I. Well bottom _____ ft. MSL or ~44 ft.

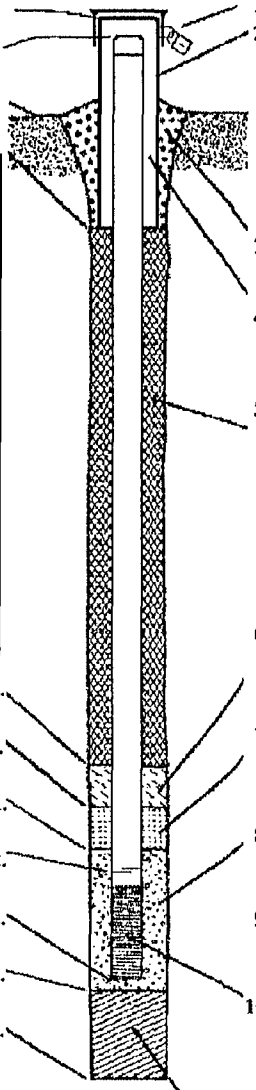
J. Filter pack, bottom _____ ft. MSL or ~45 ft.

K. Borehole, bottom _____ ft. MSL or ~45 ft.

L. Borehole, diameter 8.25 in.

M. O.D. well casing 2.75 in.

N. I.D. well casing 2.02 in.



1. Cap and lock? ☐ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 4 in.
b. Length: 5 ft.
c. Material: Steel ☒ 04; Other ☐ _____
d. Additional protection? ☐ Yes ☒ No
If yes, describe: _____

3. Surface seal: Bentonite ☒ 30; Concrete ☐ 01; Other ☐ _____

4. Material between well casing and protective pipe: Bentonite ☒ 30; Other ☐ _____

5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33
b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. _____ % Bentonite . . . . . Bentonite-cement grout ☐ 50
e. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01; Tremie pumped ☐ 02; Gravity ☒ 08

6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ _____

7. Fine sand material: Manufacturer, product name & mesh size
a. RW Sidley 30/100
b. Volume added _____ ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. RW Sidley #5
b. Volume added _____ ft^3

9. Well casing: Flush threaded PVC schedule 40 ☒ 23; Flush threaded PVC schedule 80 ☐ 24; Other ☐ _____

10. Screen material: PVC
a. Screen type: Factory cut ☒ 11; Continuous slot ☐ 01; Other ☐ _____
b. Manufacturer Monoflex
c. Slot size: 0.01 in.
d. Slotted length: 5 ft.

11. Backfill material (below filter pack): None ☒ 14; Other ☐ _____

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Dave Lemon | Firm: Maine Environmental, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

Facility/Project Name	County Name	Well Name
Saint Founa's Auto Wreckers	Milwaukee	PZ-1

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	41	_____	____

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

surged with bailer and bailed	☒ 41
surged with bailer and pumped	☐ 61
surged with block and bailed	☐ 42
surged with block and pumped	☐ 62
surged with block, bailed and pumped	☐ 70
compressed air	☐ 20
bailed only	☐ 10
pumped only	☐ 51
pumped slowly	☐ 50
Other _____	☐

3. Time spent developing well 45 min.

4. Depth of well (from top of well casisng) 46.5 ft.
44' bgs

5. Inside diameter of well 2.02 in.

6. Volume of water in filter pack and well casing 5.6 gal.

7. Volume of water removed from well 15 gal.

8. Volume of water added (if any) ____ gal.

9. Source of water added _____

10. Analysis performed on water added? (If yes, attach results) ☐ Yes ☐ No

	Before Development	After Development
11. Depth to Water (from top of well casing) a.	15.23 ft.	15.83 ft.
Date b. (m m d d y y y y)	09/26/2019	09/26/2019
Time c.	: ☐ a.m. ☐ p.m.	: ☐ a.m. ☐ p.m.
12. Sediment in well bottom	4 inches	0 inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15 (Describe)	Clear ☒ 20 Turbid ☐ 25 (Describe)
14. Total suspended solids	____.__ mg/l	____.__ mg/l
15. COD	____.__ mg/l	____.__ mg/l

Fill in if drilling fluids were used and well is at solid waste facility:

16. Well developed by: Name (first, last) and Firm
First Name: Joe Last Name: Pospichal
Firm: Moraine Environmental, Inc.

17. Additional comments on development:

Name and Address of Facility Contact/Owner/Responsible Party
First Name: Dave Last Name: Leanon
Facility/Firm: Moraine Environmental, Inc.
Street: 766 Tower Dr.
City/State/Zip: Fredonia, WI 53021

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Dave Leanon
Print Name: Dave Leanon
Firm: Moraine Environmental, Inc.

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Revelopment ☒ Other ☐ _____

Page 1 of 1

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Saint Francis Auto Wreckers		PZ-2

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Adam Last Name: Sweet Firm: Horizon Construction & Exploration	09/05/2019 (m m d d y y y y)	09/05/2019 (m m d d y y y y)	Direct Push

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			_____ Feet MSL	_____ Feet MSL	2 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane _____ N, _____ E
Lat ° ' " Long ° ' "
Local Grid Location ☐ N ☐ E _____ Feet ☐ S _____ Feet ☐ W
NE 1/4 of NW 1/4 of Section 22, T 06 N, R 22 E

Facility ID	County	County Code	Civil Town/City/or Village
241469250	Milwaukee	41	St. Francis

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (Below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
				Blind Drill to 20'										
				↓										
	60			4' silt 1' sand (black)				0		W				
	60			5' sand & gravel				0		W				
	60			5' sand				0		W				
	60			5' silt				0		W				
	60			2' silt 3' sand & gravel				0		W				

5' 10' 15' 20' 25' 30' 35' 40' 45'

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm
Dave Lennon	Moraine Environmental, Inc.

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 7-98

Facility/Project Name: Saint Frances Auto Wreckers
Facility License, Permit or Monitoring No.:
Facility ID: 241469250
Type of Well — Well Code ____/____
Distance from Waste/Source ____ ft. | Enf. Stds. Apply ☐

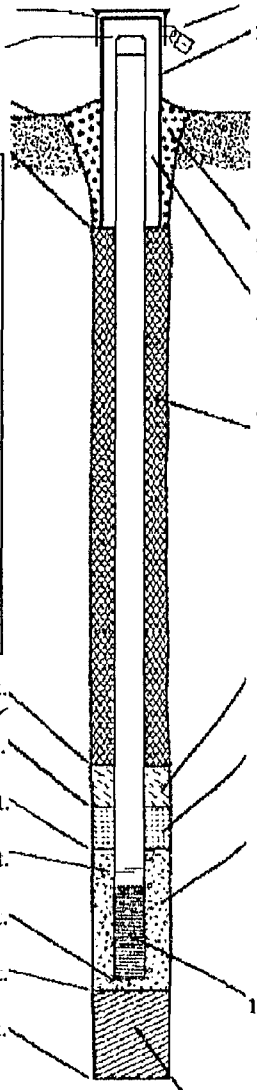
Local Grid Location of Well ☐N. ____ ft. ☐S. ☐E. ____ ft. ☐W.
Local Grid Origin ☐ (estimated: ☐) or Well Location ☐
Lat. ° ' " Long. ° ' " or
St. Plane ____ ft. N, ____ ft. E. S/C/N
Section Location of Waste/Source
NE 1/4 of NW 1/4 of Sec. 22, T. 06 N, R. 22 ☒E ☐W
Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known
Gov. Lot Number

Well Name: PZ-2
Wis. Unique Well No.: _____ DNR Well ID No.: _____
Date Well Installed: 09/05/2019 (m m d d y y y y)
Well Installed By: Name (first, last) and Firm
Adam Sweet
Horizon Construction & Exploration

A. Protective pipe, top elevation _____ ft. MSL
B. Well casing, top elevation _____ ft. MSL
C. Land surface elevation _____ ft. MSL
D. Surface seal, bottom _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐
13. Sieve analysis performed? ☐ Yes ☒ No
14. Drilling method used: Rotary ☐ 50 Hollow Stem Auger ☒ 41 Other ☐ _____
15. Drilling fluid used: Water ☐ 02 Air ☐ 01 Drilling Mud ☐ 03 None ☒ 99
16. Drilling additives used? ☐ Yes ☒ No
Describe _____
17. Source of water (attach analysis, if required):
_____

E. Bentonite seal, top _____ ft. MSL or 0 ft.
F. Fine sand, top _____ ft. MSL or 35.5 ft.
G. Filter pack, top _____ ft. MSL or 37.5 ft.
H. Screen joint, top _____ ft. MSL or 39.5 ft.
I. Well bottom _____ ft. MSL or 44.5 ft.
J. Filter pack, bottom _____ ft. MSL or 45 ft.
K. Borehole, bottom _____ ft. MSL or 45 ft.
L. Borehole, diameter 8.25 in.
M. O.D. well casing 2.75 in.
N. I.D. well casing 2.02 in.



1. Cap and lock? ☐ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 4 in.
b. Length: 5 ft.
c. Material: Steel ☒ 04 Other ☐ _____
d. Additional protection? ☐ Yes ☒ No
If yes, describe: _____
3. Surface seal: Bentonite ☒ 30 Concrete ☐ 01 Other ☐ _____
4. Material between well casing and protective pipe: Bentonite ☒ 30 Other ☐ _____
5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33
b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. _____ % Bentonite . . . . . Bentonite-cement grout ☐ 50
e. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 Tremie pumped ☐ 02 Gravity ☒ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐1/4 in. ☒3/8 in. ☐1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ _____
7. Fine sand material: Manufacturer, product name & mesh size
a. RW Sidley 30/100
b. Volume added _____ ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. RW Sidley #5
b. Volume added _____ ft^3
9. Well casing: Flush threaded PVC schedule 40 ☒ 23 Flush threaded PVC schedule 80 ☐ 24 Other ☐ _____
10. Screen material: PVC
a. Screen type: Factory cut ☒ 11 Continuous slot ☐ 01 Other ☐ _____
b. Manufacturer Monoflex
c. Slot size: 0.01 in.
d. Slotted length: 5 ft.
11. Backfill material (below filter pack): None ☒ 14 Other ☐ _____

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Dave Lemon | Firm: Moraine Environmental, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐ _____

Facility/Project Name	County Name	Well Name
Saint Francis Auto Wreckers	Milwaukee	PZ-2

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	41	_____	_____

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

surged with bailer and bailed	☒	41
surged with bailer and pumped	☐	61
surged with block and bailed	☐	42
surged with block and pumped	☐	62
surged with block, bailed and pumped	☐	70
compressed air	☐	20
bailed only	☐	10
pumped only	☐	51
pumped slowly	☐	50
Other _____	☐	__

3. Time spent developing well ___30___ min.

4. Depth of well (from top of well casisng) ___47.3___ ft.
44.5' bgs

5. Inside diameter of well ___2.07___ in.

6. Volume of water in filter pack and well casing ___5.5___ gal.

7. Volume of water removed from well ___8___ gal.

8. Volume of water added (if any) ___—___ gal.

9. Source of water added _____

10. Analysis performed on water added? (If yes, attach results) ☐ Yes ☐ No

	Before Development	After Development
11. Depth to Water (from top of well casing) a.	21.33 ft.	21.57 ft.
Date b. (m m d d y y y y)	09/26/2019	09/26/2019
Time c.	: ☐ a.m. ☐ p.m.	: ☐ a.m. ☐ p.m.
12. Sediment in well bottom	___.__ inches	___.__ inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15 (Describe)	Clear ☒ 20 Turbid ☐ 25 (Describe)
14. Total suspended solids	____.__ mg/l	____.__ mg/l
15. COD	____.__ mg/l	____.__ mg/l

Fill in if drilling fluids were used and well is at solid waste facility:

16. Well developed by: Name (first, last) and Firm
First Name: Dave Lennon Last Name:
Firm: Moraine Environmental, Inc.

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: Dave Last Name: Lennon
Facility/Firm: Moraine Environmental, Inc
Street: 7616 Tower Dr.
City/State/Zip: Fredonia, WI 53021

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Dave Lennon
Print Name: Dave Leanon
Firm: Moraine Environmental, Inc.

NOTE: See instructions for more information including a list of county codes and well type codes.

Attachment C

Laboratory Reports

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

October 09, 2019

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

RE: Project: 6078 ST. FRANCIS AUTO WRECKERS
Pace Project No.: 40196137

Dear Tom Sweet:
Enclosed are the analytical results for sample(s) received by the laboratory on September 28, 2019. 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

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 6078 ST. FRANCIS AUTO WRECKERS
Pace Project No.: 40196137

Green Bay Certification IDs

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

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 6078 ST. FRANCIS AUTO WRECKERS
Pace Project No.: 40196137

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40196137001	**PZ-1**	Water	09/26/19 13:30	09/28/19 08:15
40196137002	**PZ-2**	Water	09/26/19 13:15	09/28/19 08:15
40196137003	**MW-3B**	Water	09/26/19 13:00	09/28/19 08:15
40196137004	**MW-6**	Water	09/26/19 14:00	09/28/19 08:15

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SAMPLE ANALYTE COUNT

Project: 6078 ST. FRANCIS AUTO WRECKERS
Pace Project No.: 40196137

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40196137001	**PZ-1**	EPA 8260	HNW	64	PASI-G
40196137002	**PZ-2**	EPA 8260	HNW	64	PASI-G
40196137003	**MW-3B**	EPA 8260	LAP	64	PASI-G
40196137004	**MW-6**	EPA 8260	LAP	64	PASI-G

Pace Analytical Services, LLC
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Green Bay, WI 54302
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SUMMARY OF DETECTION

Project: 6078 ST. FRANCIS AUTO WRECKERS
Pace Project No.: 40196137

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40196137001	**PZ-1**					
EPA 8260	Benzene	0.34J	ug/L	1.0	10/01/19 00:55	
EPA 8260	Chlorobenzene	0.82J	ug/L	2.4	10/01/19 00:55	
EPA 8260	1,1-Dichloroethane	0.86J	ug/L	1.0	10/01/19 00:55	
EPA 8260	cis-1,2-Dichloroethene	1.9	ug/L	1.0	10/01/19 00:55	
EPA 8260	Toluene	0.49J	ug/L	5.0	10/01/19 00:55	
EPA 8260	Vinyl chloride	0.43J	ug/L	1.0	10/01/19 00:55	
40196137002	**PZ-2**					
EPA 8260	Benzene	0.34J	ug/L	1.0	10/01/19 01:17	
EPA 8260	1,1-Dichloroethane	0.48J	ug/L	1.0	10/01/19 01:17	
EPA 8260	1,1-Dichloroethene	1.0	ug/L	1.0	10/01/19 01:17	
EPA 8260	cis-1,2-Dichloroethene	503	ug/L	10.0	10/01/19 08:32	HS
EPA 8260	trans-1,2-Dichloroethene	16.3	ug/L	3.6	10/01/19 01:17	
EPA 8260	Toluene	0.29J	ug/L	5.0	10/01/19 01:17	
EPA 8260	Trichloroethene	0.35J	ug/L	1.0	10/01/19 01:17	
EPA 8260	Vinyl chloride	49.8	ug/L	1.0	10/01/19 01:17	
40196137003	**MW-3B**					
EPA 8260	sec-Butylbenzene	2.1J	ug/L	5.0	10/01/19 22:57	
EPA 8260	tert-Butylbenzene	4.6	ug/L	1.0	10/01/19 22:57	
EPA 8260	cis-1,2-Dichloroethene	2.2	ug/L	1.0	10/01/19 22:57	
EPA 8260	trans-1,2-Dichloroethene	3.3J	ug/L	3.6	10/01/19 22:57	
EPA 8260	Isopropylbenzene (Cumene)	3.6J	ug/L	5.0	10/01/19 22:57	
EPA 8260	Tetrachloroethene	8.8	ug/L	1.1	10/01/19 22:57	
EPA 8260	Trichloroethene	1.9	ug/L	1.0	10/01/19 22:57	
EPA 8260	Vinyl chloride	1.4	ug/L	1.0	10/01/19 22:57	
40196137004	**MW-6**					
EPA 8260	Benzene	1.3	ug/L	1.0	10/01/19 23:20	
EPA 8260	Chlorobenzene	1.8J	ug/L	2.4	10/01/19 23:20	
EPA 8260	cis-1,2-Dichloroethene	1.2	ug/L	1.0	10/01/19 23:20	
EPA 8260	Vinyl chloride	1.0	ug/L	1.0	10/01/19 23:20	

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: 6078 ST. FRANCIS AUTO WRECKERS
Pace Project No.: 40196137

Sample: PZ-1 **Lab ID: 40196137001** Collected: 09/26/19 13:30 Received: 09/28/19 08:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	**0.34J**	ug/L	1.0	0.25	1		10/01/19 00:55	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/01/19 00:55	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/01/19 00:55	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/01/19 00:55	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/01/19 00:55	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/01/19 00:55	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/01/19 00:55	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		10/01/19 00:55	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		10/01/19 00:55	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/01/19 00:55	56-23-5	
Chlorobenzene	**0.82J**	ug/L	2.4	0.71	1		10/01/19 00:55	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/01/19 00:55	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/01/19 00:55	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/01/19 00:55	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/01/19 00:55	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/01/19 00:55	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/01/19 00:55	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/01/19 00:55	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/01/19 00:55	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/01/19 00:55	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/01/19 00:55	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/01/19 00:55	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/01/19 00:55	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/01/19 00:55	75-71-8	
1,1-Dichloroethane	**0.86J**	ug/L	1.0	0.27	1		10/01/19 00:55	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/01/19 00:55	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/01/19 00:55	75-35-4	
cis-1,2-Dichloroethene	**1.9**	ug/L	1.0	0.27	1		10/01/19 00:55	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/01/19 00:55	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/01/19 00:55	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/01/19 00:55	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/01/19 00:55	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/01/19 00:55	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/01/19 00:55	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/01/19 00:55	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/01/19 00:55	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/01/19 00:55	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/01/19 00:55	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		10/01/19 00:55	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/01/19 00:55	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/01/19 00:55	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/01/19 00:55	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		10/01/19 00:55	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		10/01/19 00:55	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/01/19 00:55	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/01/19 00:55	630-20-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 6078 ST. FRANCIS AUTO WRECKERS
Pace Project No.: 40196137

Sample: PZ-1 **Lab ID: 40196137001** Collected: 09/26/19 13:30 Received: 09/28/19 08:15 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		10/01/19 00:55	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/01/19 00:55	127-18-4	
Toluene	**0.49J**	ug/L	5.0	0.17	1		10/01/19 00:55	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/01/19 00:55	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/01/19 00:55	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/01/19 00:55	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/01/19 00:55	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/01/19 00:55	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/01/19 00:55	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/01/19 00:55	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		10/01/19 00:55	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		10/01/19 00:55	108-67-8	
Vinyl chloride	**0.43J**	ug/L	1.0	0.17	1		10/01/19 00:55	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/01/19 00:55	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/01/19 00:55	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		10/01/19 00:55	460-00-4	HS
Dibromofluoromethane (S)	108	%	70-130		1		10/01/19 00:55	1868-53-7	
Toluene-d8 (S)	96	%	70-130		1		10/01/19 00:55	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 6078 ST. FRANCIS AUTO WRECKERS
Pace Project No.: 40196137

Sample: PZ-2 **Lab ID: 40196137002** Collected: 09/26/19 13:15 Received: 09/28/19 08:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	**0.34J**	ug/L	1.0	0.25	1		10/01/19 01:17	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/01/19 01:17	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/01/19 01:17	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/01/19 01:17	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/01/19 01:17	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/01/19 01:17	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/01/19 01:17	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		10/01/19 01:17	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		10/01/19 01:17	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/01/19 01:17	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/01/19 01:17	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/01/19 01:17	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/01/19 01:17	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/01/19 01:17	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/01/19 01:17	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/01/19 01:17	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/01/19 01:17	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/01/19 01:17	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/01/19 01:17	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/01/19 01:17	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/01/19 01:17	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/01/19 01:17	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/01/19 01:17	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/01/19 01:17	75-71-8	
1,1-Dichloroethane	**0.48J**	ug/L	1.0	0.27	1		10/01/19 01:17	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/01/19 01:17	107-06-2	
1,1-Dichloroethene	**1.0**	ug/L	1.0	0.24	1		10/01/19 01:17	75-35-4	
cis-1,2-Dichloroethene	**503**	ug/L	10.0	2.7	10		10/01/19 08:32	156-59-2	HS
trans-1,2-Dichloroethene	**16.3**	ug/L	3.6	1.1	1		10/01/19 01:17	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/01/19 01:17	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/01/19 01:17	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/01/19 01:17	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/01/19 01:17	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/01/19 01:17	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/01/19 01:17	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/01/19 01:17	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/01/19 01:17	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/01/19 01:17	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		10/01/19 01:17	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/01/19 01:17	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/01/19 01:17	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/01/19 01:17	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		10/01/19 01:17	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		10/01/19 01:17	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/01/19 01:17	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/01/19 01:17	630-20-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 6078 ST. FRANCIS AUTO WRECKERS
Pace Project No.: 40196137

Sample: PZ-2 **Lab ID: 40196137002** Collected: 09/26/19 13:15 Received: 09/28/19 08:15 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		10/01/19 01:17	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/01/19 01:17	127-18-4	
Toluene	**0.29J**	ug/L	5.0	0.17	1		10/01/19 01:17	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/01/19 01:17	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/01/19 01:17	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/01/19 01:17	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/01/19 01:17	79-00-5	
Trichloroethene	**0.35J**	ug/L	1.0	0.26	1		10/01/19 01:17	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/01/19 01:17	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/01/19 01:17	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		10/01/19 01:17	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		10/01/19 01:17	108-67-8	
Vinyl chloride	**49.8**	ug/L	1.0	0.17	1		10/01/19 01:17	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/01/19 01:17	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/01/19 01:17	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		1		10/01/19 01:17	460-00-4	HS
Dibromofluoromethane (S)	109	%	70-130		1		10/01/19 01:17	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		10/01/19 01:17	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 6078 ST. FRANCIS AUTO WRECKERS
Pace Project No.: 40196137

Sample: MW-3B **Lab ID: 40196137003** Collected: 09/26/19 13:00 Received: 09/28/19 08:15 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		10/01/19 22:57	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/01/19 22:57	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/01/19 22:57	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/01/19 22:57	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/01/19 22:57	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/01/19 22:57	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/01/19 22:57	104-51-8	
sec-Butylbenzene	**2.1J**	ug/L	5.0	0.85	1		10/01/19 22:57	135-98-8	
tert-Butylbenzene	**4.6**	ug/L	1.0	0.30	1		10/01/19 22:57	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/01/19 22:57	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/01/19 22:57	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/01/19 22:57	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/01/19 22:57	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/01/19 22:57	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/01/19 22:57	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/01/19 22:57	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/01/19 22:57	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/01/19 22:57	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/01/19 22:57	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/01/19 22:57	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/01/19 22:57	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/01/19 22:57	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/01/19 22:57	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/01/19 22:57	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/01/19 22:57	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/01/19 22:57	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/01/19 22:57	75-35-4	
cis-1,2-Dichloroethene	**2.2**	ug/L	1.0	0.27	1		10/01/19 22:57	156-59-2	
trans-1,2-Dichloroethene	**3.3J**	ug/L	3.6	1.1	1		10/01/19 22:57	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/01/19 22:57	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/01/19 22:57	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/01/19 22:57	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/01/19 22:57	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/01/19 22:57	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/01/19 22:57	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/01/19 22:57	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/01/19 22:57	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/01/19 22:57	87-68-3	
Isopropylbenzene (Cumene)	**3.6J**	ug/L	5.0	0.39	1		10/01/19 22:57	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/01/19 22:57	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/01/19 22:57	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/01/19 22:57	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		10/01/19 22:57	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		10/01/19 22:57	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/01/19 22:57	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/01/19 22:57	630-20-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 6078 ST. FRANCIS AUTO WRECKERS
Pace Project No.: 40196137

Sample: MW-3B **Lab ID: 40196137003** Collected: 09/26/19 13:00 Received: 09/28/19 08:15 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		10/01/19 22:57	79-34-5	
Tetrachloroethene	**8.8**	ug/L	1.1	0.33	1		10/01/19 22:57	127-18-4	
Toluene	**<0.17**	ug/L	5.0	0.17	1		10/01/19 22:57	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/01/19 22:57	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/01/19 22:57	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/01/19 22:57	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/01/19 22:57	79-00-5	
Trichloroethene	**1.9**	ug/L	1.0	0.26	1		10/01/19 22:57	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/01/19 22:57	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/01/19 22:57	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		10/01/19 22:57	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		10/01/19 22:57	108-67-8	
Vinyl chloride	**1.4**	ug/L	1.0	0.17	1		10/01/19 22:57	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/01/19 22:57	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/01/19 22:57	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		10/01/19 22:57	460-00-4	
Dibromofluoromethane (S)	110	%	70-130		1		10/01/19 22:57	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		10/01/19 22:57	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 6078 ST. FRANCIS AUTO WRECKERS
Pace Project No.: 40196137

Sample: MW-6 **Lab ID: 40196137004** Collected: 09/26/19 14:00 Received: 09/28/19 08:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	**1.3**	ug/L	1.0	0.25	1		10/01/19 23:20	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/01/19 23:20	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/01/19 23:20	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/01/19 23:20	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/01/19 23:20	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/01/19 23:20	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/01/19 23:20	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		10/01/19 23:20	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		10/01/19 23:20	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/01/19 23:20	56-23-5	
Chlorobenzene	**1.8J**	ug/L	2.4	0.71	1		10/01/19 23:20	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/01/19 23:20	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/01/19 23:20	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/01/19 23:20	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/01/19 23:20	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/01/19 23:20	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/01/19 23:20	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/01/19 23:20	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/01/19 23:20	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/01/19 23:20	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/01/19 23:20	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/01/19 23:20	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/01/19 23:20	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/01/19 23:20	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/01/19 23:20	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/01/19 23:20	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/01/19 23:20	75-35-4	
cis-1,2-Dichloroethene	**1.2**	ug/L	1.0	0.27	1		10/01/19 23:20	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/01/19 23:20	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/01/19 23:20	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/01/19 23:20	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/01/19 23:20	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/01/19 23:20	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/01/19 23:20	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/01/19 23:20	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/01/19 23:20	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/01/19 23:20	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/01/19 23:20	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		10/01/19 23:20	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/01/19 23:20	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/01/19 23:20	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/01/19 23:20	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		10/01/19 23:20	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		10/01/19 23:20	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/01/19 23:20	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/01/19 23:20	630-20-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 6078 ST. FRANCIS AUTO WRECKERS
Pace Project No.: 40196137

Sample: MW-6 **Lab ID: 40196137004** Collected: 09/26/19 14:00 Received: 09/28/19 08:15 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		10/01/19 23:20	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/01/19 23:20	127-18-4	
Toluene	**<0.17**	ug/L	5.0	0.17	1		10/01/19 23:20	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/01/19 23:20	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/01/19 23:20	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/01/19 23:20	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/01/19 23:20	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/01/19 23:20	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/01/19 23:20	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/01/19 23:20	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		10/01/19 23:20	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		10/01/19 23:20	108-67-8	
Vinyl chloride	**1.0**	ug/L	1.0	0.17	1		10/01/19 23:20	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/01/19 23:20	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/01/19 23:20	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		10/01/19 23:20	460-00-4	
Dibromofluoromethane (S)	107	%	70-130		1		10/01/19 23:20	1868-53-7	
Toluene-d8 (S)	97	%	70-130		1		10/01/19 23:20	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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QUALITY CONTROL DATA

Project: 6078 ST. FRANCIS AUTO WRECKERS
Pace Project No.: 40196137

QC Batch: 335692 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40196137001, 40196137002

METHOD BLANK: 1949472 Matrix: Water
Associated Lab Samples: 40196137001, 40196137002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.27	1.0	09/30/19 15:10	
1,1,1-Trichloroethane	ug/L	<0.24	1.0	09/30/19 15:10	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	1.0	09/30/19 15:10	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	09/30/19 15:10	
1,1-Dichloroethane	ug/L	<0.27	1.0	09/30/19 15:10	
1,1-Dichloroethene	ug/L	<0.24	1.0	09/30/19 15:10	
1,1-Dichloropropene	ug/L	<0.54	1.8	09/30/19 15:10	
1,2,3-Trichlorobenzene	ug/L	<0.63	5.0	09/30/19 15:10	
1,2,3-Trichloropropane	ug/L	<0.59	5.0	09/30/19 15:10	
1,2,4-Trichlorobenzene	ug/L	<0.95	5.0	09/30/19 15:10	
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	09/30/19 15:10	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	09/30/19 15:10	
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	09/30/19 15:10	
1,2-Dichlorobenzene	ug/L	<0.71	2.4	09/30/19 15:10	
1,2-Dichloroethane	ug/L	<0.28	1.0	09/30/19 15:10	
1,2-Dichloropropane	ug/L	<0.28	1.0	09/30/19 15:10	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	09/30/19 15:10	
1,3-Dichlorobenzene	ug/L	<0.63	2.1	09/30/19 15:10	
1,3-Dichloropropane	ug/L	<0.83	2.8	09/30/19 15:10	
1,4-Dichlorobenzene	ug/L	<0.94	3.1	09/30/19 15:10	
2,2-Dichloropropane	ug/L	<2.3	7.6	09/30/19 15:10	
2-Chlorotoluene	ug/L	<0.93	5.0	09/30/19 15:10	
4-Chlorotoluene	ug/L	<0.76	2.5	09/30/19 15:10	
Benzene	ug/L	<0.25	1.0	09/30/19 15:10	
Bromobenzene	ug/L	<0.24	1.0	09/30/19 15:10	
Bromochloromethane	ug/L	<0.36	5.0	09/30/19 15:10	
Bromodichloromethane	ug/L	<0.36	1.2	09/30/19 15:10	
Bromoform	ug/L	<4.0	13.2	09/30/19 15:10	
Bromomethane	ug/L	<0.97	5.0	09/30/19 15:10	
Carbon tetrachloride	ug/L	<0.17	1.0	09/30/19 15:10	
Chlorobenzene	ug/L	<0.71	2.4	09/30/19 15:10	
Chloroethane	ug/L	<1.3	5.0	09/30/19 15:10	
Chloroform	ug/L	<1.3	5.0	09/30/19 15:10	
Chloromethane	ug/L	<2.2	7.3	09/30/19 15:10	
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	09/30/19 15:10	
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	09/30/19 15:10	
Dibromochloromethane	ug/L	<2.6	8.7	09/30/19 15:10	
Dibromomethane	ug/L	<0.94	3.1	09/30/19 15:10	
Dichlorodifluoromethane	ug/L	<0.50	5.0	09/30/19 15:10	
Diisopropyl ether	ug/L	<1.9	6.3	09/30/19 15:10	
Ethylbenzene	ug/L	<0.22	1.0	09/30/19 15:10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 6078 ST. FRANCIS AUTO WRECKERS
Pace Project No.: 40196137

METHOD BLANK: 1949472 Matrix: Water
Associated Lab Samples: 40196137001, 40196137002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<1.2	5.0	09/30/19 15:10	
Isopropylbenzene (Cumene)	ug/L	<0.39	5.0	09/30/19 15:10	
m&p-Xylene	ug/L	<0.47	2.0	09/30/19 15:10	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	09/30/19 15:10	
Methylene Chloride	ug/L	<0.58	5.0	09/30/19 15:10	
n-Butylbenzene	ug/L	<0.71	2.4	09/30/19 15:10	
n-Propylbenzene	ug/L	<0.81	5.0	09/30/19 15:10	
Naphthalene	ug/L	<1.2	5.0	09/30/19 15:10	
o-Xylene	ug/L	<0.26	1.0	09/30/19 15:10	
p-Isopropyltoluene	ug/L	<0.80	2.7	09/30/19 15:10	
sec-Butylbenzene	ug/L	<0.85	5.0	09/30/19 15:10	
Styrene	ug/L	<0.47	1.6	09/30/19 15:10	
tert-Butylbenzene	ug/L	<0.30	1.0	09/30/19 15:10	
Tetrachloroethene	ug/L	<0.33	1.1	09/30/19 15:10	
Toluene	ug/L	<0.17	5.0	09/30/19 15:10	
trans-1,2-Dichloroethene	ug/L	<1.1	3.6	09/30/19 15:10	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	09/30/19 15:10	
Trichloroethene	ug/L	<0.26	1.0	09/30/19 15:10	
Trichlorofluoromethane	ug/L	<0.21	1.0	09/30/19 15:10	
Vinyl chloride	ug/L	<0.17	1.0	09/30/19 15:10	
4-Bromofluorobenzene (S)	%	95	70-130	09/30/19 15:10	
Dibromofluoromethane (S)	%	109	70-130	09/30/19 15:10	
Toluene-d8 (S)	%	96	70-130	09/30/19 15:10	

LABORATORY CONTROL SAMPLE: 1949473

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	53.1	106	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	48.2	96	70-130	
1,1,2-Trichloroethane	ug/L	50	52.7	105	70-130	
1,1-Dichloroethane	ug/L	50	59.9	120	73-150	
1,1-Dichloroethene	ug/L	50	55.6	111	73-138	
1,2,4-Trichlorobenzene	ug/L	50	49.3	99	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	41.2	82	64-129	
1,2-Dibromoethane (EDB)	ug/L	50	53.7	107	70-130	
1,2-Dichlorobenzene	ug/L	50	50.6	101	70-130	
1,2-Dichloroethane	ug/L	50	55.1	110	75-140	
1,2-Dichloropropane	ug/L	50	52.7	105	73-135	
1,3-Dichlorobenzene	ug/L	50	50.9	102	70-130	
1,4-Dichlorobenzene	ug/L	50	51.7	103	70-130	
Benzene	ug/L	50	51.1	102	70-130	
Bromodichloromethane	ug/L	50	51.8	104	70-130	
Bromoform	ug/L	50	51.0	102	68-129	
Bromomethane	ug/L	50	28.6	57	18-159	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 6078 ST. FRANCIS AUTO WRECKERS
Pace Project No.: 40196137

LABORATORY CONTROL SAMPLE: 1949473

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/L	50	52.2	104	70-130	
Chlorobenzene	ug/L	50	54.0	108	70-130	
Chloroethane	ug/L	50	41.5	83	53-147	
Chloroform	ug/L	50	52.9	106	74-136	
Chloromethane	ug/L	50	30.8	62	29-115	
cis-1,2-Dichloroethene	ug/L	50	52.2	104	70-130	
cis-1,3-Dichloropropene	ug/L	50	45.9	92	70-130	
Dibromochloromethane	ug/L	50	52.1	104	70-130	
Dichlorodifluoromethane	ug/L	50	21.3	43	10-130	
Ethylbenzene	ug/L	50	52.3	105	80-124	
Isopropylbenzene (Cumene)	ug/L	50	52.6	105	70-130	
m&p-Xylene	ug/L	100	109	109	70-130	
Methyl-tert-butyl ether	ug/L	50	44.0	88	54-137	
Methylene Chloride	ug/L	50	55.1	110	73-138	
o-Xylene	ug/L	50	53.3	107	70-130	
Styrene	ug/L	50	53.1	106	70-130	
Tetrachloroethene	ug/L	50	56.9	114	70-130	
Toluene	ug/L	50	51.4	103	80-126	
trans-1,2-Dichloroethene	ug/L	50	58.3	117	73-145	
trans-1,3-Dichloropropene	ug/L	50	45.0	90	70-130	
Trichloroethene	ug/L	50	54.6	109	70-130	
Trichlorofluoromethane	ug/L	50	47.3	95	76-147	
Vinyl chloride	ug/L	50	39.0	78	51-120	
4-Bromofluorobenzene (S)	%			99	70-130	
Dibromofluoromethane (S)	%			105	70-130	
Toluene-d8 (S)	%			96	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

QUALITY CONTROL DATA

Project: 6078 ST. FRANCIS AUTO WRECKERS
Pace Project No.: 40196137

QC Batch: 335812 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40196137003, 40196137004

METHOD BLANK: 1950104 Matrix: Water
Associated Lab Samples: 40196137003, 40196137004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.27	1.0	10/01/19 16:58	
1,1,1-Trichloroethane	ug/L	<0.24	1.0	10/01/19 16:58	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	1.0	10/01/19 16:58	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	10/01/19 16:58	
1,1-Dichloroethane	ug/L	<0.27	1.0	10/01/19 16:58	
1,1-Dichloroethene	ug/L	<0.24	1.0	10/01/19 16:58	
1,1-Dichloropropene	ug/L	<0.54	1.8	10/01/19 16:58	
1,2,3-Trichlorobenzene	ug/L	<0.63	5.0	10/01/19 16:58	
1,2,3-Trichloropropane	ug/L	<0.59	5.0	10/01/19 16:58	
1,2,4-Trichlorobenzene	ug/L	<0.95	5.0	10/01/19 16:58	
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	10/01/19 16:58	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	10/01/19 16:58	
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	10/01/19 16:58	
1,2-Dichlorobenzene	ug/L	<0.71	2.4	10/01/19 16:58	
1,2-Dichloroethane	ug/L	<0.28	1.0	10/01/19 16:58	
1,2-Dichloropropane	ug/L	<0.28	1.0	10/01/19 16:58	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	10/01/19 16:58	
1,3-Dichlorobenzene	ug/L	<0.63	2.1	10/01/19 16:58	
1,3-Dichloropropane	ug/L	<0.83	2.8	10/01/19 16:58	
1,4-Dichlorobenzene	ug/L	<0.94	3.1	10/01/19 16:58	
2,2-Dichloropropane	ug/L	<2.3	7.6	10/01/19 16:58	
2-Chlorotoluene	ug/L	<0.93	5.0	10/01/19 16:58	
4-Chlorotoluene	ug/L	<0.76	2.5	10/01/19 16:58	
Benzene	ug/L	<0.25	1.0	10/01/19 16:58	
Bromobenzene	ug/L	<0.24	1.0	10/01/19 16:58	
Bromochloromethane	ug/L	<0.36	5.0	10/01/19 16:58	
Bromodichloromethane	ug/L	<0.36	1.2	10/01/19 16:58	
Bromoform	ug/L	<4.0	13.2	10/01/19 16:58	
Bromomethane	ug/L	<0.97	5.0	10/01/19 16:58	
Carbon tetrachloride	ug/L	<0.17	1.0	10/01/19 16:58	
Chlorobenzene	ug/L	<0.71	2.4	10/01/19 16:58	
Chloroethane	ug/L	<1.3	5.0	10/01/19 16:58	
Chloroform	ug/L	<1.3	5.0	10/01/19 16:58	
Chloromethane	ug/L	<2.2	7.3	10/01/19 16:58	
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	10/01/19 16:58	
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	10/01/19 16:58	
Dibromochloromethane	ug/L	<2.6	8.7	10/01/19 16:58	
Dibromomethane	ug/L	<0.94	3.1	10/01/19 16:58	
Dichlorodifluoromethane	ug/L	<0.50	5.0	10/01/19 16:58	
Diisopropyl ether	ug/L	<1.9	6.3	10/01/19 16:58	
Ethylbenzene	ug/L	<0.22	1.0	10/01/19 16:58	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 6078 ST. FRANCIS AUTO WRECKERS
Pace Project No.: 40196137

METHOD BLANK: 1950104 Matrix: Water
Associated Lab Samples: 40196137003, 40196137004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<1.2	5.0	10/01/19 16:58	
Isopropylbenzene (Cumene)	ug/L	<0.39	5.0	10/01/19 16:58	
m&p-Xylene	ug/L	<0.47	2.0	10/01/19 16:58	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	10/01/19 16:58	
Methylene Chloride	ug/L	<0.58	5.0	10/01/19 16:58	
n-Butylbenzene	ug/L	<0.71	2.4	10/01/19 16:58	
n-Propylbenzene	ug/L	<0.81	5.0	10/01/19 16:58	
Naphthalene	ug/L	<1.2	5.0	10/01/19 16:58	
o-Xylene	ug/L	<0.26	1.0	10/01/19 16:58	
p-Isopropyltoluene	ug/L	<0.80	2.7	10/01/19 16:58	
sec-Butylbenzene	ug/L	<0.85	5.0	10/01/19 16:58	
Styrene	ug/L	<0.47	1.6	10/01/19 16:58	
tert-Butylbenzene	ug/L	<0.30	1.0	10/01/19 16:58	
Tetrachloroethene	ug/L	<0.33	1.1	10/01/19 16:58	
Toluene	ug/L	<0.17	5.0	10/01/19 16:58	
trans-1,2-Dichloroethene	ug/L	<1.1	3.6	10/01/19 16:58	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	10/01/19 16:58	
Trichloroethene	ug/L	<0.26	1.0	10/01/19 16:58	
Trichlorofluoromethane	ug/L	<0.21	1.0	10/01/19 16:58	
Vinyl chloride	ug/L	<0.17	1.0	10/01/19 16:58	
4-Bromofluorobenzene (S)	%	97	70-130	10/01/19 16:58	
Dibromofluoromethane (S)	%	106	70-130	10/01/19 16:58	
Toluene-d8 (S)	%	98	70-130	10/01/19 16:58	

LABORATORY CONTROL SAMPLE: 1950105

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	59.9	120	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	55.5	111	70-130	
1,1,2-Trichloroethane	ug/L	50	55.9	112	70-130	
1,1-Dichloroethane	ug/L	50	60.5	121	73-150	
1,1-Dichloroethene	ug/L	50	54.3	109	73-138	
1,2,4-Trichlorobenzene	ug/L	50	49.1	98	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	48.0	96	64-129	
1,2-Dibromoethane (EDB)	ug/L	50	52.5	105	70-130	
1,2-Dichlorobenzene	ug/L	50	53.2	106	70-130	
1,2-Dichloroethane	ug/L	50	57.4	115	75-140	
1,2-Dichloropropane	ug/L	50	56.5	113	73-135	
1,3-Dichlorobenzene	ug/L	50	53.2	106	70-130	
1,4-Dichlorobenzene	ug/L	50	52.9	106	70-130	
Benzene	ug/L	50	58.6	117	70-130	
Bromodichloromethane	ug/L	50	52.4	105	70-130	
Bromoform	ug/L	50	49.3	99	68-129	
Bromomethane	ug/L	50	43.6	87	18-159	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 6078 ST. FRANCIS AUTO WRECKERS
Pace Project No.: 40196137

LABORATORY CONTROL SAMPLE: 1950105

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/L	50	58.1	116	70-130	
Chlorobenzene	ug/L	50	51.9	104	70-130	
Chloroethane	ug/L	50	46.3	93	53-147	
Chloroform	ug/L	50	57.8	116	74-136	
Chloromethane	ug/L	50	39.9	80	29-115	
cis-1,2-Dichloroethene	ug/L	50	53.6	107	70-130	
cis-1,3-Dichloropropene	ug/L	50	51.3	103	70-130	
Dibromochloromethane	ug/L	50	49.1	98	70-130	
Dichlorodifluoromethane	ug/L	50	35.9	72	10-130	
Ethylbenzene	ug/L	50	54.6	109	80-124	
Isopropylbenzene (Cumene)	ug/L	50	54.1	108	70-130	
m&p-Xylene	ug/L	100	107	107	70-130	
Methyl-tert-butyl ether	ug/L	50	47.7	95	54-137	
Methylene Chloride	ug/L	50	54.1	108	73-138	
o-Xylene	ug/L	50	51.5	103	70-130	
Styrene	ug/L	50	53.4	107	70-130	
Tetrachloroethene	ug/L	50	51.4	103	70-130	
Toluene	ug/L	50	53.5	107	80-126	
trans-1,2-Dichloroethene	ug/L	50	58.7	117	73-145	
trans-1,3-Dichloropropene	ug/L	50	51.4	103	70-130	
Trichloroethene	ug/L	50	55.9	112	70-130	
Trichlorofluoromethane	ug/L	50	52.7	105	76-147	
Vinyl chloride	ug/L	50	43.1	86	51-120	
4-Bromofluorobenzene (S)	%			96	70-130	
Dibromofluoromethane (S)	%			101	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1950106 1950107

Parameter	Units	40196133022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.24	50	50	60.3	62.3	121	125	70-130	3	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	50	50	57.1	60.6	114	121	70-130	6	20	
1,1,2-Trichloroethane	ug/L	<0.55	50	50	49.8	53.2	100	106	70-137	7	20	
1,1-Dichloroethane	ug/L	<0.27	50	50	62.4	64.8	125	130	73-153	4	20	
1,1-Dichloroethene	ug/L	<0.24	50	50	54.3	56.4	109	113	73-138	4	20	
1,2,4-Trichlorobenzene	ug/L	<0.95	50	50	52.2	52.8	104	106	70-130	1	20	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	50	50	48.7	53.9	97	108	58-129	10	20	
1,2-Dibromoethane (EDB)	ug/L	<0.83	50	50	46.8	50.4	94	101	70-130	7	20	
1,2-Dichlorobenzene	ug/L	<0.71	50	50	53.4	54.0	107	108	70-130	1	20	
1,2-Dichloroethane	ug/L	<0.28	50	50	59.0	61.3	118	123	75-140	4	20	
1,2-Dichloropropane	ug/L	<0.28	50	50	65.1	61.5	130	123	71-138	6	20	
1,3-Dichlorobenzene	ug/L	<0.63	50	50	52.3	53.1	105	106	70-130	1	20	
1,4-Dichlorobenzene	ug/L	<0.94	50	50	52.4	54.5	105	109	70-130	4	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 6078 ST. FRANCIS AUTO WRECKERS
Pace Project No.: 40196137

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1950106 1950107

Parameter	Units	40196133022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	<0.25	50	50	56.7	60.0	113	120	70-130	6	20	
Bromodichloromethane	ug/L	<0.36	50	50	60.4	58.4	121	117	70-130	3	20	
Bromoform	ug/L	<4.0	50	50	42.9	46.7	86	93	68-129	9	20	
Bromomethane	ug/L	<0.97	50	50	45.9	42.4	92	85	15-170	8	20	
Carbon tetrachloride	ug/L	<0.17	50	50	59.0	61.4	118	123	70-130	4	20	
Chlorobenzene	ug/L	<0.71	50	50	53.0	53.4	106	107	70-130	1	20	
Chloroethane	ug/L	<1.3	50	50	46.6	46.5	93	93	51-148	0	20	
Chloroform	ug/L	<1.3	50	50	58.5	59.7	117	119	74-136	2	20	
Chloromethane	ug/L	<2.2	50	50	39.8	39.8	78	78	23-115	0	20	
cis-1,2-Dichloroethene	ug/L	<0.27	50	50	56.7	55.8	113	112	70-131	2	20	
cis-1,3-Dichloropropene	ug/L	<3.6	50	50	59.6	56.1	119	112	70-130	6	20	
Dibromochloromethane	ug/L	<2.6	50	50	46.1	49.0	92	98	70-130	6	20	
Dichlorodifluoromethane	ug/L	<0.50	50	50	34.3	34.7	69	69	10-132	1	20	
Ethylbenzene	ug/L	10.2	50	50	69.2	69.1	118	118	80-125	0	20	
Isopropylbenzene (Cumene)	ug/L	0.48J	50	50	58.7	59.6	116	118	70-130	1	20	
m&p-Xylene	ug/L	2.6	100	100	115	117	112	114	70-130	2	20	
Methyl-tert-butyl ether	ug/L	<1.2	50	50	46.2	51.6	92	103	51-145	11	20	
Methylene Chloride	ug/L	<0.58	50	50	55.0	56.2	110	112	73-140	2	20	
o-Xylene	ug/L	10.4	50	50	66.5	66.5	112	112	70-130	0	20	
Styrene	ug/L	<0.47	50	50	56.9	57.9	114	116	70-130	2	20	
Tetrachloroethene	ug/L	<0.33	50	50	46.7	47.4	93	95	70-130	1	20	
Toluene	ug/L	0.28J	50	50	51.8	52.6	103	105	80-131	2	20	
trans-1,2-Dichloroethene	ug/L	<1.1	50	50	56.8	60.0	114	120	73-148	6	20	
trans-1,3-Dichloropropene	ug/L	<4.4	50	50	45.6	49.0	91	98	70-130	7	20	
Trichloroethene	ug/L	<0.26	50	50	63.8	60.9	128	122	70-130	5	20	
Trichlorofluoromethane	ug/L	<0.21	50	50	53.0	54.3	106	109	74-147	3	20	
Vinyl chloride	ug/L	<0.17	50	50	41.6	43.4	83	87	41-129	4	20	
4-Bromofluorobenzene (S)	%						104	103	70-130			
Dibromofluoromethane (S)	%						112	113	70-130			
Toluene-d8 (S)	%						97	95	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

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 6078 ST. FRANCIS AUTO WRECKERS
Pace Project No.: 40196137

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

ANALYTE QUALIFIERS

HS	Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 6078 ST. FRANCIS AUTO WRECKERS
Pace Project No.: 40196137

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40196137001	**PZ-1**	EPA 8260	335692		
40196137002	**PZ-2**	EPA 8260	335692		
40196137003	**MW-3B**	EPA 8260	335812		
40196137004	**MW-6**	EPA 8260	335812		

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

Pace Analytical®
www.pacelabs.com

CHAIN OF CUSTODY

4019613 7

(Please Print Clearly)	
Company Name:	Moraine Environmental
Branch/Location:	Fredonia
Project Contact:	Tom Sweet
Phone:	262-692-3345
Project Number:	6078
Project Name:	St Francis Auto Wreckers
Project State:	WI
Sampled By (Print):	Dave Lemon
Sampled By (Sign):	Dave Lemon
PO #:	Regulatory Program:

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	Tom Sweet
Mail To Company:	Moraine Environmental
Mail To Address:	Moraine@execpc.com
Invoice To Contact:	SAME
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, W = Water
B = Biota, DW = Drinking Water
C = Charcoal, GW = Ground Water
O = Oil, SW = Surface Water
S = Soil, WW = Waste Water
SI = Sludge, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analysis Requested: VOCs	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	PZ-1	9/26/19	1330	GW	N	B	X			
002	PZ-2	9/26/19	1315	GW			X			
003	MW-3B	9/26/19	1300	GW			X			
004	MW-6	9/26/19	1100	GW			X			

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):
Email #1:
Email #2:
Telephone:
Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	9/27/19 9:10	Mary Fanni	9/27/19 9:10
Mary Fanni	9/27/19 1130		
FEDEX	9/28/19 0515		
			9/28/19 0815

PACE Project No. 4019613 7
Receipt Temp = 1.2 °C
Sample Receipt pH OK / Adjusted
Cooler Custody Seal Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Pace Analytical Services, LLC
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Sample Preservation Receipt Form

Client Name: Moraine Project # 40196137

All containers needing preservation have been checked and noted below: □Yes □No ☑N/A Initial when completed: Date/ Time:

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

Pace Lab #	Glass: AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	Plastic: BP1U	BP2N	BP2Z	BP3U	BP3B	BP3N	BP3S	Vials: DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	Jars: JGFU	WGFU	WPFU	General: SP5T	ZPLC	GN	VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
001																		3									1						2.5 / 5 / 10
002																		3									3						2.5 / 5 / 10
003																		3									2						2.5 / 5 / 10
004																		3									2						2.5 / 5 / 10
005																																	2.5 / 5 / 10
006																																	2.5 / 5 / 10
007																																	2.5 / 5 / 10
008																																	2.5 / 5 / 10
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014																																	2.5 / 5 / 10
015																																	2.5 / 5 / 10
016																																	2.5 / 5 / 10
017																																	2.5 / 5 / 10
018																																	2.5 / 5 / 10
019																																	2.5 / 5 / 10
020																																	2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm): □Yes □No ~~☑N/A~~ *If yes look in headspace column

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass 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:	

Pace Analytical™ 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 25Apr2018
	Document No.: F-GB-C-031-Rev.07	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #: WO# : 40196137

40196137

Client Name: Morane

Courier: ☑ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco
☐ Client ☐ Pace Other: _____

Tracking #: _____

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 - MH **Type of Ice:** (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 2.2 /Corr:

Temp Blank Present: ☑ yes ☐ no **Biological Tissue is Frozen:** ☐ yes ☐ no

Person examining contents:
Date: 9/28/19
Initials: JH

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume: For Analysis: ☑Yes ☐No MS/MSD:	☐Yes ☑No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W		
Trip Blank Present:	☐Yes ☑No ☐N/A	13.
Trip Blank Custody Seals Present	☐Yes ☐No ☑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: _____ **Date:** 9/30/19

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

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

Laboratory Job ID: 320-54781-1
Client Project/Site: St. Francis Auto Wreckers - #6078

For:
Moraine Environmental Inc
766 Tower Dr
Fredonia, Wisconsin 53021

Attn: Dave Lennon

Sandie Fredrick

Authorized for release by:
11/7/2019 6:14:46 PM

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

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Definitions/Glossary

Client: Moraine Environmental Inc
Job ID: 320-54781-1
Project/Site: St. Francis Auto Wreckers - #6078

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.
¤	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)

Job ID: 320-54781-1

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Job Narrative
320-54781-1

Comments
No additional comments.

Receipt
The samples were received on 9/27/2019 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.0º C.

Receipt Exceptions
The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. COC did not lists date and time for collection of samples. Logged in and labeled according to container label of date and time.

LCMS
Method 537 (modified): Due to a shortage in the marketplace for 13C3-PFBS, the target analyte PFBS and/or Perfluoropentanesulfonic acid (PFPeS) could not be quantitated against 13C3-PFBS (its labeled variant) as listed in the SOP. PFBS and Perfluoropentanesulfonic acid (PFPeS) was quantitated versus 18O2-PFHxS instead. (ICV 320-326599/11)

Method 537 (modified): The 13C4 PFBA Isotope Dilution Analyte (IDA) recovery associated with the following samples is below the method recommended limit: PZ-1 (320-54781-1) and MW-6 (320-54781-3). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the samples.

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 for the following samples: PZ-1 (320-54781-1), MW-3B (320-54781-2) and MW-6 (320-54781-3). These samples were reanalyzed at dilution with concurring results. Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for 13C4 PFOS for the following sample: MW-6 (320-54781-3). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

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

Organic Prep
Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-327244. Method Code: 3535 PFC

Method 3535: The following samples were observed to be light yellow in color prior to extraction: MW-3B (320-54781-2), MW-6 (320-54781-3) and FIELD BLANK (320-54781-4). Method Code: 3535 PFC preparation batch 320-327244

Method 3535: The following sample contains non-settleable particulate matter which clogged the solid phase extraction cartridge: PZ-1 (320-54781-1). Method Code: 3535 PFC preparation batch 320-327244

Method 3535: The following samples were observed to be light yellow in color after final voluming: PZ-1 (320-54781-1), MW-3B (320-54781-2) and MW-6 (320-54781-3) . Method Code: 3535 PFC preparation batch 320-327244

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: 320-54781-1

Client Sample ID: PZ-1 — Lab Sample ID: 320-54781-1

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	120		1.7	0.30	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	78		1.7	0.50	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	50		1.7	0.22	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	280		1.7	0.74	ng/L	1		537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.40	J B	1.7	0.25	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	21		1.7	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	57	B	1.7	0.15	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	8.3		1.7	0.16	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	0.44	J B	1.7	0.30	ng/L	1		537 (modified)	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	96		17	1.6	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	330		3.5	0.94	ng/L	2		537 (modified)	Total/NA

Client Sample ID: MW-3B — Lab Sample ID: 320-54781-2

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	81		1.6	0.40	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	71		1.6	0.48	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	56		1.6	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	62		1.6	0.70	ng/L	1		537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.33	J B	1.6	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	26	B	1.6	0.14	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	19		1.6	0.44	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	0.45	J B	1.6	0.29	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-6 — Lab Sample ID: 320-54781-3

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	99		1.7	0.30	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	81		1.7	0.49	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	57		1.7	0.21	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	200		1.7	0.73	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	2.8		1.7	0.23	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	16		1.7	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	96	B	1.7	0.15	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	7.8		1.7	0.16	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	210		1.7	0.46	ng/L	1		537 (modified)	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	7.2	J	17	1.6	ng/L	1		537 (modified)	Total/NA

Client Sample ID: FIELD BLANK — Lab Sample ID: 320-54781-4

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	0.23	J B	1.8	0.15	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 320-54781-1

Client Sample ID: PZ-1
Date Collected: 09/26/19 13:30
Date Received: 09/27/19 09:00

Lab Sample ID: 320-54781-1
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**120**		1.7	0.30	ng/L		09/30/19 08:03	10/01/19 13:18	1
Perfluoropentanoic acid (PFPeA)	<0.42		1.7	0.42	ng/L		09/30/19 08:03	10/01/19 13:18	1
Perfluorohexanoic acid (PFHxA)	**78**		1.7	0.50	ng/L		09/30/19 08:03	10/01/19 13:18	1
Perfluoroheptanoic acid (PFHpA)	**50**		1.7	0.22	ng/L		09/30/19 08:03	10/01/19 13:18	1
Perfluorooctanoic acid (PFOA)	**280**		1.7	0.74	ng/L		09/30/19 08:03	10/01/19 13:18	1
Perfluorononanoic acid (PFNA)	<0.23		1.7	0.23	ng/L		09/30/19 08:03	10/01/19 13:18	1
Perfluorodecanoic acid (PFDA)	<0.27		1.7	0.27	ng/L		09/30/19 08:03	10/01/19 13:18	1
Perfluoroundecanoic acid (PFUnA)	<0.95		1.7	0.95	ng/L		09/30/19 08:03	10/01/19 13:18	1
Perfluorododecanoic acid (PFDoA)	<0.48		1.7	0.48	ng/L		09/30/19 08:03	10/01/19 13:18	1
Perfluorotridecanoic acid (PFTriA)	<1.1		1.7	1.1	ng/L		09/30/19 08:03	10/01/19 13:18	1
Perfluorotetradecanoic acid (PFTeA)	**0.40**	**J B**	1.7	0.25	ng/L		09/30/19 08:03	10/01/19 13:18	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.77		1.7	0.77	ng/L		09/30/19 08:03	10/01/19 13:18	1
Perfluorobutanesulfonic acid (PFBS)	<0.17		1.7	0.17	ng/L		09/30/19 08:03	10/01/19 13:18	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.40		1.7	0.40	ng/L		09/30/19 08:03	10/01/19 13:18	1
Perfluoropentanesulfonic acid (PFPeS)	**21**		1.7	0.26	ng/L		09/30/19 08:03	10/01/19 13:18	1
Perfluorohexanesulfonic acid (PFHxS)	**57**	**B**	1.7	0.15	ng/L		09/30/19 08:03	10/01/19 13:18	1
Perfluoroheptanesulfonic Acid (PFHpS)	**8.3**		1.7	0.16	ng/L		09/30/19 08:03	10/01/19 13:18	1
Perfluorononanesulfonic acid (PFNS)	<0.14		1.7	0.14	ng/L		09/30/19 08:03	10/01/19 13:18	1
Perfluorodecanesulfonic acid (PFDS)	<0.28		1.7	0.28	ng/L		09/30/19 08:03	10/01/19 13:18	1
Perfluorooctanesulfonamide (FOSA)	**0.44**	**J B**	1.7	0.30	ng/L		09/30/19 08:03	10/01/19 13:18	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.7		17	2.7	ng/L		09/30/19 08:03	10/01/19 13:18	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**96**		17	1.6	ng/L		09/30/19 08:03	10/01/19 13:18	1
4:2 FTS	<4.5		17	4.5	ng/L		09/30/19 08:03	10/01/19 13:18	1
6:2 FTS	<1.7		17	1.7	ng/L		09/30/19 08:03	10/01/19 13:18	1
8:2 FTS	<1.7		17	1.7	ng/L		09/30/19 08:03	10/01/19 13:18	1
NEtFOSA	<0.75		1.7	0.75	ng/L		09/30/19 08:03	10/01/19 13:18	1
NMeFOSA	<0.37		1.7	0.37	ng/L		09/30/19 08:03	10/01/19 13:18	1
NMeFOSE	<1.2		3.5	1.2	ng/L		09/30/19 08:03	10/01/19 13:18	1
NEtFOSE	<0.74		1.7	0.74	ng/L		09/30/19 08:03	10/01/19 13:18	1
Perfluorododecanesulfonic acid (PFDoS)	<0.39		1.7	0.39	ng/L		09/30/19 08:03	10/01/19 13:18	1
F-53B Major	<0.21		1.7	0.21	ng/L		09/30/19 08:03	10/01/19 13:18	1
HFPO-DA (GenX)	<1.3		3.5	1.3	ng/L		09/30/19 08:03	10/01/19 13:18	1
F-53B Minor	<0.28		1.7	0.28	ng/L		09/30/19 08:03	10/01/19 13:18	1
10:2 FTS	<0.16		1.7	0.16	ng/L		09/30/19 08:03	10/01/19 13:18	1
DONA	<0.16		1.7	0.16	ng/L		09/30/19 08:03	10/01/19 13:18	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*20*	*	*25 - 150*	*09/30/19 08:03*	*10/01/19 13:18*	*1*
13C5 PFPeA	*37*		*25 - 150*	*09/30/19 08:03*	*10/01/19 13:18*	*1*
13C2 PFHxA	*62*		*25 - 150*	*09/30/19 08:03*	*10/01/19 13:18*	*1*
13C4 PFHpA	*78*		*25 - 150*	*09/30/19 08:03*	*10/01/19 13:18*	*1*
13C4 PFOA	*85*		*25 - 150*	*09/30/19 08:03*	*10/01/19 13:18*	*1*
13C5 PFNA	*89*		*25 - 150*	*09/30/19 08:03*	*10/01/19 13:18*	*1*

Client: Moraine Environmental Inc
Job ID: 320-54781-1
Project/Site: St. Francis Auto Wreckers - #6078

Client Sample ID: PZ-1
Lab Sample ID: 320-54781-1
Date Collected: 09/26/19 13:30
Matrix: Water
Date Received: 09/27/19 09:00

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFDA	114		25 - 150	09/30/19 08:03	10/01/19 13:18	1
13C2 PFUnA	112		25 - 150	09/30/19 08:03	10/01/19 13:18	1
13C2 PFDoA	89		25 - 150	09/30/19 08:03	10/01/19 13:18	1
13C2 PFTeDA	88		25 - 150	09/30/19 08:03	10/01/19 13:18	1
18O2 PFHxS	106		25 - 150	09/30/19 08:03	10/01/19 13:18	1
13C4 PFOS	101		25 - 150	09/30/19 08:03	10/01/19 13:18	1
13C8 FOSA	92		25 - 150	09/30/19 08:03	10/01/19 13:18	1
d3-NMeFOSAA	84		25 - 150	09/30/19 08:03	10/01/19 13:18	1
d5-NEtFOSAA	103		25 - 150	09/30/19 08:03	10/01/19 13:18	1
M2-6:2 FTS	297	*	25 - 150	09/30/19 08:03	10/01/19 13:18	1
M2-8:2 FTS	273	*	25 - 150	09/30/19 08:03	10/01/19 13:18	1
M2-4:2 FTS	194	*	25 - 150	09/30/19 08:03	10/01/19 13:18	1
d9-N-EtFOSE-M	53		10 - 120	09/30/19 08:03	10/01/19 13:18	1
d-N-MeFOSA-M	54		20 - 150	09/30/19 08:03	10/01/19 13:18	1
d7-N-MeFOSE-M	41		10 - 120	09/30/19 08:03	10/01/19 13:18	1
d-N-EtFOSA-M	45		20 - 150	09/30/19 08:03	10/01/19 13:18	1
13C2 PFHxDA	79		25 - 150	09/30/19 08:03	10/01/19 13:18	1
13C3 HFPO-DA	50		25 - 150	09/30/19 08:03	10/01/19 13:18	1

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

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	330		3.5	0.94	ng/L		09/30/19 08:03	10/01/19 17:54	2

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOS	90		25 - 150	09/30/19 08:03	10/01/19 17:54	2

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

Job ID: 320-54781-1

Client Sample ID: MW-3B
Date Collected: 09/26/19 13:45
Date Received: 09/27/19 09:00

Lab Sample ID: 320-54781-2
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<0.29		1.6	0.29	ng/L		09/30/19 08:03	10/01/19 13:46	1
Perfluoropentanoic acid (PFPeA)	**81**		1.6	0.40	ng/L		09/30/19 08:03	10/01/19 13:46	1
Perfluorohexanoic acid (PFHxA)	**71**		1.6	0.48	ng/L		09/30/19 08:03	10/01/19 13:46	1
Perfluoroheptanoic acid (PFHpA)	**56**		1.6	0.21	ng/L		09/30/19 08:03	10/01/19 13:46	1
Perfluorooctanoic acid (PFOA)	**62**		1.6	0.70	ng/L		09/30/19 08:03	10/01/19 13:46	1
Perfluorononanoic acid (PFNA)	<0.22		1.6	0.22	ng/L		09/30/19 08:03	10/01/19 13:46	1
Perfluorodecanoic acid (PFDA)	<0.26		1.6	0.26	ng/L		09/30/19 08:03	10/01/19 13:46	1
Perfluoroundecanoic acid (PFUnA)	<0.91		1.6	0.91	ng/L		09/30/19 08:03	10/01/19 13:46	1
Perfluorododecanoic acid (PFDoA)	<0.45		1.6	0.45	ng/L		09/30/19 08:03	10/01/19 13:46	1
Perfluorotridecanoic acid (PFTriA)	<1.1		1.6	1.1	ng/L		09/30/19 08:03	10/01/19 13:46	1
Perfluorotetradecanoic acid (PFTeA)	**0.33**	**J B**	1.6	0.24	ng/L		09/30/19 08:03	10/01/19 13:46	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.73		1.6	0.73	ng/L		09/30/19 08:03	10/01/19 13:46	1
Perfluorobutanesulfonic acid (PFBS)	<0.16		1.6	0.16	ng/L		09/30/19 08:03	10/01/19 13:46	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.38		1.6	0.38	ng/L		09/30/19 08:03	10/01/19 13:46	1
Perfluoropentanesulfonic acid (PFPeS)	<0.25		1.6	0.25	ng/L		09/30/19 08:03	10/01/19 13:46	1
Perfluorohexanesulfonic acid (PFHxS)	**26**	**B**	1.6	0.14	ng/L		09/30/19 08:03	10/01/19 13:46	1
Perfluoroheptanesulfonic Acid (PFHpS)	<0.16		1.6	0.16	ng/L		09/30/19 08:03	10/01/19 13:46	1
Perfluorooctanesulfonic acid (PFOS)	**19**		1.6	0.44	ng/L		09/30/19 08:03	10/01/19 13:46	1
Perfluorononanesulfonic acid (PFNS)	<0.13		1.6	0.13	ng/L		09/30/19 08:03	10/01/19 13:46	1
Perfluorodecanesulfonic acid (PFDS)	<0.26		1.6	0.26	ng/L		09/30/19 08:03	10/01/19 13:46	1
Perfluorooctanesulfonamide (FOSA)	**0.45**	**J B**	1.6	0.29	ng/L		09/30/19 08:03	10/01/19 13:46	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.6		16	2.6	ng/L		09/30/19 08:03	10/01/19 13:46	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1.6		16	1.6	ng/L		09/30/19 08:03	10/01/19 13:46	1
4:2 FTS	<4.3		16	4.3	ng/L		09/30/19 08:03	10/01/19 13:46	1
6:2 FTS	<1.6		16	1.6	ng/L		09/30/19 08:03	10/01/19 13:46	1
8:2 FTS	<1.6		16	1.6	ng/L		09/30/19 08:03	10/01/19 13:46	1
NEtFOSA	<0.72		1.6	0.72	ng/L		09/30/19 08:03	10/01/19 13:46	1
NMeFOSA	<0.35		1.6	0.35	ng/L		09/30/19 08:03	10/01/19 13:46	1
NMeFOSE	<1.2		3.3	1.2	ng/L		09/30/19 08:03	10/01/19 13:46	1
NEtFOSE	<0.70		1.6	0.70	ng/L		09/30/19 08:03	10/01/19 13:46	1
Perfluorododecanesulfonic acid (PFDoS)	<0.37		1.6	0.37	ng/L		09/30/19 08:03	10/01/19 13:46	1
F-53B Major	<0.20		1.6	0.20	ng/L		09/30/19 08:03	10/01/19 13:46	1
HFPO-DA (GenX)	<1.2		3.3	1.2	ng/L		09/30/19 08:03	10/01/19 13:46	1
F-53B Minor	<0.26		1.6	0.26	ng/L		09/30/19 08:03	10/01/19 13:46	1
10:2 FTS	<0.16		1.6	0.16	ng/L		09/30/19 08:03	10/01/19 13:46	1
DONA	<0.15		1.6	0.15	ng/L		09/30/19 08:03	10/01/19 13:46	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*30*		*25 - 150*	*09/30/19 08:03*	*10/01/19 13:46*	*1*
13C5 PFPeA	*55*		*25 - 150*	*09/30/19 08:03*	*10/01/19 13:46*	*1*
13C2 PFHxA	*75*		*25 - 150*	*09/30/19 08:03*	*10/01/19 13:46*	*1*
13C4 PFHpA	*96*		*25 - 150*	*09/30/19 08:03*	*10/01/19 13:46*	*1*

Client: Moraine Environmental Inc
Job ID: 320-54781-1
Project/Site: St. Francis Auto Wreckers - #6078

Client Sample ID: MW-3B
Lab Sample ID: 320-54781-2
Date Collected: 09/26/19 13:45
Matrix: Water
Date Received: 09/27/19 09:00

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOA	107		25 - 150	09/30/19 08:03	10/01/19 13:46	1
13C5 PFNA	122		25 - 150	09/30/19 08:03	10/01/19 13:46	1
13C2 PFDA	135		25 - 150	09/30/19 08:03	10/01/19 13:46	1
13C2 PFUnA	134		25 - 150	09/30/19 08:03	10/01/19 13:46	1
13C2 PFDoA	130		25 - 150	09/30/19 08:03	10/01/19 13:46	1
13C2 PFTeDA	117		25 - 150	09/30/19 08:03	10/01/19 13:46	1
18O2 PFHxS	125		25 - 150	09/30/19 08:03	10/01/19 13:46	1
13C4 PFOS	137		25 - 150	09/30/19 08:03	10/01/19 13:46	1
13C8 FOSA	108		25 - 150	09/30/19 08:03	10/01/19 13:46	1
d3-NMeFOSAA	111		25 - 150	09/30/19 08:03	10/01/19 13:46	1
d5-NEtFOSAA	140		25 - 150	09/30/19 08:03	10/01/19 13:46	1
M2-6:2 FTS	358	*	25 - 150	09/30/19 08:03	10/01/19 13:46	1
M2-8:2 FTS	328	*	25 - 150	09/30/19 08:03	10/01/19 13:46	1
M2-4:2 FTS	291	*	25 - 150	09/30/19 08:03	10/01/19 13:46	1
d9-N-EtFOSE-M	50		10 - 120	09/30/19 08:03	10/01/19 13:46	1
d-N-MeFOSA-M	58		20 - 150	09/30/19 08:03	10/01/19 13:46	1
d7-N-MeFOSE-M	49		10 - 120	09/30/19 08:03	10/01/19 13:46	1
d-N-EtFOSA-M	51		20 - 150	09/30/19 08:03	10/01/19 13:46	1
13C2 PFHxDA	119		25 - 150	09/30/19 08:03	10/01/19 13:46	1
13C3 HFPO-DA	48		25 - 150	09/30/19 08:03	10/01/19 13:46	1

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

Job ID: 320-54781-1

Client Sample ID: MW-6

Date Collected: 09/26/19 14:00
Date Received: 09/27/19 09:00

Lab Sample ID: 320-54781-3

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**99**		1.7	0.30	ng/L		09/30/19 08:03	10/01/19 13:56	1
Perfluoropentanoic acid (PFPeA)	<0.42		1.7	0.42	ng/L		09/30/19 08:03	10/01/19 13:56	1
Perfluorohexanoic acid (PFHxA)	**81**		1.7	0.49	ng/L		09/30/19 08:03	10/01/19 13:56	1
Perfluoroheptanoic acid (PFHpA)	**57**		1.7	0.21	ng/L		09/30/19 08:03	10/01/19 13:56	1
Perfluorooctanoic acid (PFOA)	**200**		1.7	0.73	ng/L		09/30/19 08:03	10/01/19 13:56	1
Perfluorononanoic acid (PFNA)	**2.8**		1.7	0.23	ng/L		09/30/19 08:03	10/01/19 13:56	1
Perfluorodecanoic acid (PFDA)	<0.26		1.7	0.26	ng/L		09/30/19 08:03	10/01/19 13:56	1
Perfluoroundecanoic acid (PFUnA)	<0.94		1.7	0.94	ng/L		09/30/19 08:03	10/01/19 13:56	1
Perfluorododecanoic acid (PFDoA)	<0.47		1.7	0.47	ng/L		09/30/19 08:03	10/01/19 13:56	1
Perfluorotridecanoic acid (PFTriA)	<1.1		1.7	1.1	ng/L		09/30/19 08:03	10/01/19 13:56	1
Perfluorotetradecanoic acid (PFTeA)	<0.25		1.7	0.25	ng/L		09/30/19 08:03	10/01/19 13:56	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.76		1.7	0.76	ng/L		09/30/19 08:03	10/01/19 13:56	1
Perfluorobutanesulfonic acid (PFBS)	<0.17		1.7	0.17	ng/L		09/30/19 08:03	10/01/19 13:56	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.39		1.7	0.39	ng/L		09/30/19 08:03	10/01/19 13:56	1
Perfluoropentanesulfonic acid (PFPeS)	**16**		1.7	0.26	ng/L		09/30/19 08:03	10/01/19 13:56	1
Perfluorohexanesulfonic acid (PFHxS)	**96**	**B**	1.7	0.15	ng/L		09/30/19 08:03	10/01/19 13:56	1
Perfluoroheptanesulfonic Acid (PFHpS)	**7.8**		1.7	0.16	ng/L		09/30/19 08:03	10/01/19 13:56	1
Perfluorooctanesulfonic acid (PFOS)	**210**		1.7	0.46	ng/L		09/30/19 08:03	10/01/19 13:56	1
Perfluorononanesulfonic acid (PFNS)	<0.14		1.7	0.14	ng/L		09/30/19 08:03	10/01/19 13:56	1
Perfluorodecanesulfonic acid (PFDS)	<0.27		1.7	0.27	ng/L		09/30/19 08:03	10/01/19 13:56	1
Perfluorooctanesulfonamide (FOSA)	<0.30		1.7	0.30	ng/L		09/30/19 08:03	10/01/19 13:56	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.6		17	2.6	ng/L		09/30/19 08:03	10/01/19 13:56	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**7.2**	**J**	17	1.6	ng/L		09/30/19 08:03	10/01/19 13:56	1
4:2 FTS	<4.4		17	4.4	ng/L		09/30/19 08:03	10/01/19 13:56	1
6:2 FTS	<1.7		17	1.7	ng/L		09/30/19 08:03	10/01/19 13:56	1
8:2 FTS	<1.7		17	1.7	ng/L		09/30/19 08:03	10/01/19 13:56	1
NEtFOSA	<0.74		1.7	0.74	ng/L		09/30/19 08:03	10/01/19 13:56	1
NMeFOSA	<0.37		1.7	0.37	ng/L		09/30/19 08:03	10/01/19 13:56	1
NMeFOSE	<1.2		3.4	1.2	ng/L		09/30/19 08:03	10/01/19 13:56	1
NEtFOSE	<0.73		1.7	0.73	ng/L		09/30/19 08:03	10/01/19 13:56	1
Perfluorododecanesulfonic acid (PFDoS)	<0.38		1.7	0.38	ng/L		09/30/19 08:03	10/01/19 13:56	1
F-53B Major	<0.20		1.7	0.20	ng/L		09/30/19 08:03	10/01/19 13:56	1
HFPO-DA (GenX)	<1.3		3.4	1.3	ng/L		09/30/19 08:03	10/01/19 13:56	1
F-53B Minor	<0.27		1.7	0.27	ng/L		09/30/19 08:03	10/01/19 13:56	1
10:2 FTS	<0.16		1.7	0.16	ng/L		09/30/19 08:03	10/01/19 13:56	1
DONA	<0.15		1.7	0.15	ng/L		09/30/19 08:03	10/01/19 13:56	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*23*	*	*25 - 150*	*09/30/19 08:03*	*10/01/19 13:56*	*1*
13C5 PFPeA	*47*		*25 - 150*	*09/30/19 08:03*	*10/01/19 13:56*	*1*
13C2 PFHxA	*75*		*25 - 150*	*09/30/19 08:03*	*10/01/19 13:56*	*1*
13C4 PFHpA	*100*		*25 - 150*	*09/30/19 08:03*	*10/01/19 13:56*	*1*
13C4 PFOA	*106*		*25 - 150*	*09/30/19 08:03*	*10/01/19 13:56*	*1*

Client: Moraine Environmental Inc
Job ID: 320-54781-1
Project/Site: St. Francis Auto Wreckers - #6078

Client Sample ID: MW-6
Lab Sample ID: 320-54781-3
Date Collected: 09/26/19 14:00
Matrix: Water
Date Received: 09/27/19 09:00

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFNA	119		25 - 150	09/30/19 08:03	10/01/19 13:56	1
13C2 PFDA	144		25 - 150	09/30/19 08:03	10/01/19 13:56	1
13C2 PFUnA	138		25 - 150	09/30/19 08:03	10/01/19 13:56	1
13C2 PFDoA	142		25 - 150	09/30/19 08:03	10/01/19 13:56	1
13C2 PFTeDA	121		25 - 150	09/30/19 08:03	10/01/19 13:56	1
18O2 PFHxS	146		25 - 150	09/30/19 08:03	10/01/19 13:56	1
13C4 PFOS	154	*	25 - 150	09/30/19 08:03	10/01/19 13:56	1
13C8 FOSA	108		25 - 150	09/30/19 08:03	10/01/19 13:56	1
d3-NMeFOSAA	121		25 - 150	09/30/19 08:03	10/01/19 13:56	1
d5-NEtFOSAA	144		25 - 150	09/30/19 08:03	10/01/19 13:56	1
M2-6:2 FTS	367	*	25 - 150	09/30/19 08:03	10/01/19 13:56	1
M2-8:2 FTS	367	*	25 - 150	09/30/19 08:03	10/01/19 13:56	1
M2-4:2 FTS	463	*	25 - 150	09/30/19 08:03	10/01/19 13:56	1
d9-N-EtFOSE-M	70		10 - 120	09/30/19 08:03	10/01/19 13:56	1
d-N-MeFOSA-M	69		20 - 150	09/30/19 08:03	10/01/19 13:56	1
d7-N-MeFOSE-M	55		10 - 120	09/30/19 08:03	10/01/19 13:56	1
d-N-EtFOSA-M	62		20 - 150	09/30/19 08:03	10/01/19 13:56	1
13C2 PFHxDA	128		25 - 150	09/30/19 08:03	10/01/19 13:56	1
13C3 HFPO-DA	74		25 - 150	09/30/19 08:03	10/01/19 13:56	1

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

Job ID: 320-54781-1

Client Sample ID: FIELD BLANK

Date Collected: 09/26/19 14:00
Date Received: 09/27/19 09:00

Lab Sample ID: 320-54781-4

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<0.31		1.8	0.31	ng/L		09/30/19 08:03	10/01/19 17:45	1
Perfluoropentanoic acid (PFPeA)	<0.43		1.8	0.43	ng/L		09/30/19 08:03	10/01/19 17:45	1
Perfluorohexanoic acid (PFHxA)	<0.51		1.8	0.51	ng/L		09/30/19 08:03	10/01/19 17:45	1
Perfluoroheptanoic acid (PFHpA)	<0.22		1.8	0.22	ng/L		09/30/19 08:03	10/01/19 17:45	1
Perfluorooctanoic acid (PFOA)	<0.75		1.8	0.75	ng/L		09/30/19 08:03	10/01/19 17:45	1
Perfluorononanoic acid (PFNA)	<0.24		1.8	0.24	ng/L		09/30/19 08:03	10/01/19 17:45	1
Perfluorodecanoic acid (PFDA)	<0.27		1.8	0.27	ng/L		09/30/19 08:03	10/01/19 17:45	1
Perfluoroundecanoic acid (PFUnA)	<0.97		1.8	0.97	ng/L		09/30/19 08:03	10/01/19 17:45	1
Perfluorododecanoic acid (PFDoA)	<0.49		1.8	0.49	ng/L		09/30/19 08:03	10/01/19 17:45	1
Perfluorotridecanoic acid (PFTriA)	<1.2		1.8	1.2	ng/L		09/30/19 08:03	10/01/19 17:45	1
Perfluorotetradecanoic acid (PFTeA)	<0.26		1.8	0.26	ng/L		09/30/19 08:03	10/01/19 17:45	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.79		1.8	0.79	ng/L		09/30/19 08:03	10/01/19 17:45	1
Perfluorobutanesulfonic acid (PFBS)	<0.18		1.8	0.18	ng/L		09/30/19 08:03	10/01/19 17:45	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.41		1.8	0.41	ng/L		09/30/19 08:03	10/01/19 17:45	1
Perfluoropentanesulfonic acid (PFPeS)	<0.27		1.8	0.27	ng/L		09/30/19 08:03	10/01/19 17:45	1
Perfluorohexanesulfonic acid (PFHxS)	**0.23**	**J B**	1.8	0.15	ng/L		09/30/19 08:03	10/01/19 17:45	1
Perfluoroheptanesulfonic Acid (PFHpS)	<0.17		1.8	0.17	ng/L		09/30/19 08:03	10/01/19 17:45	1
Perfluorooctanesulfonic acid (PFOS)	<0.48		1.8	0.48	ng/L		09/30/19 08:03	10/01/19 17:45	1
Perfluorononanesulfonic acid (PFNS)	<0.14		1.8	0.14	ng/L		09/30/19 08:03	10/01/19 17:45	1
Perfluorodecanesulfonic acid (PFDS)	<0.28		1.8	0.28	ng/L		09/30/19 08:03	10/01/19 17:45	1
Perfluorooctanesulfonamide (FOSA)	<0.31		1.8	0.31	ng/L		09/30/19 08:03	10/01/19 17:45	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.7		18	2.7	ng/L		09/30/19 08:03	10/01/19 17:45	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1.7		18	1.7	ng/L		09/30/19 08:03	10/01/19 17:45	1
4:2 FTS	<4.6		18	4.6	ng/L		09/30/19 08:03	10/01/19 17:45	1
6:2 FTS	<1.8		18	1.8	ng/L		09/30/19 08:03	10/01/19 17:45	1
8:2 FTS	<1.8		18	1.8	ng/L		09/30/19 08:03	10/01/19 17:45	1
NEtFOSA	<0.77		1.8	0.77	ng/L		09/30/19 08:03	10/01/19 17:45	1
NMeFOSA	<0.38		1.8	0.38	ng/L		09/30/19 08:03	10/01/19 17:45	1
NMeFOSE	<1.2		3.5	1.2	ng/L		09/30/19 08:03	10/01/19 17:45	1
NEtFOSE	<0.75		1.8	0.75	ng/L		09/30/19 08:03	10/01/19 17:45	1
Perfluorododecanesulfonic acid (PFDoS)	<0.40		1.8	0.40	ng/L		09/30/19 08:03	10/01/19 17:45	1
F-53B Major	<0.21		1.8	0.21	ng/L		09/30/19 08:03	10/01/19 17:45	1
HFPO-DA (GenX)	<1.3		3.5	1.3	ng/L		09/30/19 08:03	10/01/19 17:45	1
F-53B Minor	<0.28		1.8	0.28	ng/L		09/30/19 08:03	10/01/19 17:45	1
10:2 FTS	<0.17		1.8	0.17	ng/L		09/30/19 08:03	10/01/19 17:45	1
DONA	<0.16		1.8	0.16	ng/L		09/30/19 08:03	10/01/19 17:45	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*101*		*25 - 150*	*09/30/19 08:03*	*10/01/19 17:45*	*1*
13C5 PFPeA	*104*		*25 - 150*	*09/30/19 08:03*	*10/01/19 17:45*	*1*
13C2 PFHxA	*101*		*25 - 150*	*09/30/19 08:03*	*10/01/19 17:45*	*1*
13C4 PFHpA	*103*		*25 - 150*	*09/30/19 08:03*	*10/01/19 17:45*	*1*
13C4 PFOA	*106*		*25 - 150*	*09/30/19 08:03*	*10/01/19 17:45*	*1*
13C5 PFNA	*105*		*25 - 150*	*09/30/19 08:03*	*10/01/19 17:45*	*1*

Client: Moraine Environmental Inc
Job ID: 320-54781-1
Project/Site: St. Francis Auto Wreckers - #6078

Client Sample ID: FIELD BLANK
Lab Sample ID: 320-54781-4
Date Collected: 09/26/19 14:00
Matrix: Water
Date Received: 09/27/19 09:00

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFDA	103		25 - 150	09/30/19 08:03	10/01/19 17:45	1
13C2 PFUnA	112		25 - 150	09/30/19 08:03	10/01/19 17:45	1
13C2 PFDoA	112		25 - 150	09/30/19 08:03	10/01/19 17:45	1
13C2 PFTeDA	109		25 - 150	09/30/19 08:03	10/01/19 17:45	1
18O2 PFHxS	115		25 - 150	09/30/19 08:03	10/01/19 17:45	1
13C4 PFOS	107		25 - 150	09/30/19 08:03	10/01/19 17:45	1
13C8 FOSA	103		25 - 150	09/30/19 08:03	10/01/19 17:45	1
d3-NMeFOSAA	89		25 - 150	09/30/19 08:03	10/01/19 17:45	1
d5-NEtFOSAA	96		25 - 150	09/30/19 08:03	10/01/19 17:45	1
M2-6:2 FTS	107		25 - 150	09/30/19 08:03	10/01/19 17:45	1
M2-8:2 FTS	107		25 - 150	09/30/19 08:03	10/01/19 17:45	1
M2-4:2 FTS	95		25 - 150	09/30/19 08:03	10/01/19 17:45	1
d9-N-EtFOSE-M	20		10 - 120	09/30/19 08:03	10/01/19 17:45	1
d-N-MeFOSA-M	74		20 - 150	09/30/19 08:03	10/01/19 17:45	1
d7-N-MeFOSE-M	25		10 - 120	09/30/19 08:03	10/01/19 17:45	1
d-N-EtFOSA-M	45		20 - 150	09/30/19 08:03	10/01/19 17:45	1
13C2 PFHxDA	98		25 - 150	09/30/19 08:03	10/01/19 17:45	1
13C3 HFPO-DA	99		25 - 150	09/30/19 08:03	10/01/19 17:45	1

Isotope Dilution Summary

Client: Moraine Environmental Inc
Job ID: 320-54781-1
Project/Site: St. Francis Auto Wreckers - #6078

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	PFHpA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-54781-1	PZ-1	20 *	37	62	78	85	89	114	112
320-54781-1 - DL	PZ-1								
320-54781-2	MW-3B	30	55	75	96	107	122	135	134
320-54781-3	MW-6	23 *	47	75	100	106	119	144	138
320-54781-4	FIELD BLANK	101	104	101	103	106	105	103	112
LCS 320-327244/2-A	Lab Control Sample	96	98	100	104	110	102	114	125
LCSD 320-327244/3-A	Lab Control Sample Dup	97	102	100	102	112	107	116	121
MB 320-327244/1-A	Method Blank	96	95	95	100	111	109	112	117

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDoA (25-150)	PFTDA (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	-NMeFOS/ (25-150)	-NEtFOS/ (25-150)	M262FTS (25-150)
320-54781-1	PZ-1	89	88	106	101	92	84	103	297 *
320-54781-1 - DL	PZ-1				90				
320-54781-2	MW-3B	130	117	125	137	108	111	140	358 *
320-54781-3	MW-6	142	121	146	154 *	108	121	144	367 *
320-54781-4	FIELD BLANK	112	109	115	107	103	89	96	107
LCS 320-327244/2-A	Lab Control Sample	126	127	116	106	105	101	104	106
LCSD 320-327244/3-A	Lab Control Sample Dup	123	129	111	97	97	93	96	99
MB 320-327244/1-A	Method Blank	124	121	108	104	104	102	109	108

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M282FTS (25-150)	M242FTS (25-150)	NEFM (10-120)	I-MeFOSA (20-150)	NMFM (10-120)	N-EtFOSA (20-150)	PFHxDA (25-150)	HFPODA (25-150)
320-54781-1	PZ-1	273 *	194 *	53	54	41	45	79	50
320-54781-1 - DL	PZ-1								
320-54781-2	MW-3B	328 *	291 *	50	58	49	51	119	48
320-54781-3	MW-6	367 *	463 *	70	69	55	62	128	74
320-54781-4	FIELD BLANK	107	95	20	74	25	45	98	99
LCS 320-327244/2-A	Lab Control Sample	111	100	21	66	21	39	137	109
LCSD 320-327244/3-A	Lab Control Sample Dup	103	84	19	66	22	35	145	142
MB 320-327244/1-A	Method Blank	110	99	18	73	22	39	139	105

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
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

Isotope Dilution Summary

Client: Moraine Environmental Inc
Job ID: 320-54781-1
Project/Site: St. Francis Auto Wreckers - #6078

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

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-327244/1-A
Matrix: Water
Analysis Batch: 327439

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 327244

Analyte	MB Result	MB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<0.35		2.0	0.35	ng/L		09/30/19 08:01	10/01/19 11:17	1
Perfluoropentanoic acid (PFPeA)	<0.49		2.0	0.49	ng/L		09/30/19 08:01	10/01/19 11:17	1
Perfluorohexanoic acid (PFHxA)	<0.58		2.0	0.58	ng/L		09/30/19 08:01	10/01/19 11:17	1
Perfluoroheptanoic acid (PFHpA)	<0.25		2.0	0.25	ng/L		09/30/19 08:01	10/01/19 11:17	1
Perfluorooctanoic acid (PFOA)	<0.85		2.0	0.85	ng/L		09/30/19 08:01	10/01/19 11:17	1
Perfluorononanoic acid (PFNA)	<0.27		2.0	0.27	ng/L		09/30/19 08:01	10/01/19 11:17	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	0.31	ng/L		09/30/19 08:01	10/01/19 11:17	1
Perfluoroundecanoic acid (PFUnA)	<1.1		2.0	1.1	ng/L		09/30/19 08:01	10/01/19 11:17	1
Perfluorododecanoic acid (PFDoA)	<0.55		2.0	0.55	ng/L		09/30/19 08:01	10/01/19 11:17	1
Perfluorotridecanoic acid (PFTriA)	<1.3		2.0	1.3	ng/L		09/30/19 08:01	10/01/19 11:17	1
Perfluorotetradecanoic acid (PFTeA)	0.358	J	2.0	0.29	ng/L		09/30/19 08:01	10/01/19 11:17	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.89		2.0	0.89	ng/L		09/30/19 08:01	10/01/19 11:17	1
Perfluorobutanesulfonic acid (PFBS)	<0.20		2.0	0.20	ng/L		09/30/19 08:01	10/01/19 11:17	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.46		2.0	0.46	ng/L		09/30/19 08:01	10/01/19 11:17	1
Perfluoropentanesulfonic acid (PFPeS)	<0.30		2.0	0.30	ng/L		09/30/19 08:01	10/01/19 11:17	1
Perfluorohexanesulfonic acid (PFHxS)	0.276	J	2.0	0.17	ng/L		09/30/19 08:01	10/01/19 11:17	1
Perfluoroheptanesulfonic Acid (PFHpS)	<0.19		2.0	0.19	ng/L		09/30/19 08:01	10/01/19 11:17	1
Perfluorooctanesulfonic acid (PFOS)	<0.54		2.0	0.54	ng/L		09/30/19 08:01	10/01/19 11:17	1
Perfluorononanesulfonic acid (PFNS)	<0.16		2.0	0.16	ng/L		09/30/19 08:01	10/01/19 11:17	1
Perfluorodecanesulfonic acid (PFDS)	<0.32		2.0	0.32	ng/L		09/30/19 08:01	10/01/19 11:17	1
Perfluorooctanesulfonamide (FOSA)	0.379	J	2.0	0.35	ng/L		09/30/19 08:01	10/01/19 11:17	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<3.1		20	3.1	ng/L		09/30/19 08:01	10/01/19 11:17	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1.9		20	1.9	ng/L		09/30/19 08:01	10/01/19 11:17	1
4:2 FTS	<5.2		20	5.2	ng/L		09/30/19 08:01	10/01/19 11:17	1
6:2 FTS	<2.0		20	2.0	ng/L		09/30/19 08:01	10/01/19 11:17	1
8:2 FTS	<2.0		20	2.0	ng/L		09/30/19 08:01	10/01/19 11:17	1
NEtFOSA	<0.87		2.0	0.87	ng/L		09/30/19 08:01	10/01/19 11:17	1
NMeFOSA	<0.43		2.0	0.43	ng/L		09/30/19 08:01	10/01/19 11:17	1
NMeFOSE	<1.4		4.0	1.4	ng/L		09/30/19 08:01	10/01/19 11:17	1
NEtFOSE	<0.85		2.0	0.85	ng/L		09/30/19 08:01	10/01/19 11:17	1
Perfluorododecanesulfonic acid (PFDoS)	<0.45		2.0	0.45	ng/L		09/30/19 08:01	10/01/19 11:17	1
F-53B Major	<0.24		2.0	0.24	ng/L		09/30/19 08:01	10/01/19 11:17	1
HFPO-DA (GenX)	<1.5		4.0	1.5	ng/L		09/30/19 08:01	10/01/19 11:17	1
F-53B Minor	<0.32		2.0	0.32	ng/L		09/30/19 08:01	10/01/19 11:17	1
10:2 FTS	<0.19		2.0	0.19	ng/L		09/30/19 08:01	10/01/19 11:17	1
DONA	<0.18		2.0	0.18	ng/L		09/30/19 08:01	10/01/19 11:17	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*96*		*25 - 150*	*09/30/19 08:01*	*10/01/19 11:17*	*1*
13C5 PFPeA	*95*		*25 - 150*	*09/30/19 08:01*	*10/01/19 11:17*	*1*
13C2 PFHxA	*95*		*25 - 150*	*09/30/19 08:01*	*10/01/19 11:17*	*1*
13C4 PFHpA	*100*		*25 - 150*	*09/30/19 08:01*	*10/01/19 11:17*	*1*
13C4 PFOA	*111*		*25 - 150*	*09/30/19 08:01*	*10/01/19 11:17*	*1*

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

Lab Sample ID: MB 320-327244/1-A
Matrix: Water
Analysis Batch: 327439

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 327244

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFNA	109		25 - 150	09/30/19 08:01	10/01/19 11:17	1
13C2 PFDA	112		25 - 150	09/30/19 08:01	10/01/19 11:17	1
13C2 PFUnA	117		25 - 150	09/30/19 08:01	10/01/19 11:17	1
13C2 PFDoA	124		25 - 150	09/30/19 08:01	10/01/19 11:17	1
13C2 PFTeDA	121		25 - 150	09/30/19 08:01	10/01/19 11:17	1
18O2 PFHxS	108		25 - 150	09/30/19 08:01	10/01/19 11:17	1
13C4 PFOS	104		25 - 150	09/30/19 08:01	10/01/19 11:17	1
13C8 FOSA	104		25 - 150	09/30/19 08:01	10/01/19 11:17	1
d3-NMeFOSAA	102		25 - 150	09/30/19 08:01	10/01/19 11:17	1
d5-NEtFOSAA	109		25 - 150	09/30/19 08:01	10/01/19 11:17	1
M2-6:2 FTS	108		25 - 150	09/30/19 08:01	10/01/19 11:17	1
M2-8:2 FTS	110		25 - 150	09/30/19 08:01	10/01/19 11:17	1
M2-4:2 FTS	99		25 - 150	09/30/19 08:01	10/01/19 11:17	1
d9-N-EtFOSE-M	18		10 - 120	09/30/19 08:01	10/01/19 11:17	1
d-N-MeFOSA-M	73		20 - 150	09/30/19 08:01	10/01/19 11:17	1
d7-N-MeFOSE-M	22		10 - 120	09/30/19 08:01	10/01/19 11:17	1
d-N-EtFOSA-M	39		20 - 150	09/30/19 08:01	10/01/19 11:17	1
13C2 PFHxDA	139		25 - 150	09/30/19 08:01	10/01/19 11:17	1
13C3 HFPO-DA	105		25 - 150	09/30/19 08:01	10/01/19 11:17	1

Lab Sample ID: LCS 320-327244/2-A
Matrix: Water
Analysis Batch: 327439

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 327244

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	43.9		ng/L		110	70 - 130
Perfluoropentanoic acid (PFPeA)	40.0	40.7		ng/L		102	66 - 126
Perfluorohexanoic acid (PFHxA)	40.0	40.5		ng/L		101	66 - 126
Perfluoroheptanoic acid (PFHpA)	40.0	38.3		ng/L		96	66 - 126
Perfluorooctanoic acid (PFOA)	40.0	39.4		ng/L		98	64 - 124
Perfluorononanoic acid (PFNA)	40.0	42.2		ng/L		106	68 - 128
Perfluorodecanoic acid (PFDA)	40.0	37.1		ng/L		93	69 - 129
Perfluoroundecanoic acid (PFUnA)	40.0	36.7		ng/L		92	60 - 120
Perfluorododecanoic acid (PFDoA)	40.0	37.1		ng/L		93	71 - 131
Perfluorotridecanoic acid (PFTriA)	40.0	39.1		ng/L		98	72 - 132
Perfluorotetradecanoic acid (PFTeA)	40.0	38.7		ng/L		97	68 - 128
Perfluoro-n-hexadecanoic acid (PFHxDA)	40.0	41.5		ng/L		104	72 - 132
Perfluorobutanesulfonic acid (PFBS)	35.4	32.8		ng/L		93	73 - 133
Perfluoro-n-octadecanoic acid (PFODA)	40.0	44.5		ng/L		111	74 - 134
Perfluoropentanesulfonic acid (PFPeS)	37.5	34.6		ng/L		92	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	36.4	31.2		ng/L		86	63 - 123

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

Lab Sample ID: LCS 320-327244/2-A
Matrix: Water
Analysis Batch: 327439

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 327244

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Perfluoroheptanesulfonic Acid (PFHpS)			38.1	39.4		ng/L		103	68 - 128		
Perfluorooctanesulfonic acid (PFOS)			37.1	36.8		ng/L		99	67 - 127		
Perfluorononanesulfonic acid (PFNS)			38.4	41.9		ng/L		109	70 - 130		
Perfluorodecanesulfonic acid (PFDS)			38.6	38.1		ng/L		99	68 - 128		
Perfluorooctanesulfonamide (FOSA)			40.0	38.7		ng/L		97	70 - 130		
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			40.0	43.1		ng/L		108	67 - 127		
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			40.0	42.1		ng/L		105	65 - 125		
4:2 FTS			37.4	40.5		ng/L		108	70 - 130		
6:2 FTS			37.9	44.7		ng/L		118	66 - 126		
8:2 FTS			38.3	39.0		ng/L		102	67 - 127		
NEtFOSA			40.0	48.2		ng/L		120	65 - 135		
NMeFOSA			40.0	46.4		ng/L		116	65 - 135		
NMeFOSE			40.0	43.9		ng/L		110	65 - 135		
NEtFOSE			40.0	36.5		ng/L		91	65 - 135		
Perfluorododecanesulfonic acid (PFDoS)			38.7	42.6		ng/L		110	70 - 130		
F-53B Major			37.3	36.7		ng/L		98	70 - 130		
HFPO-DA (GenX)			40.0	38.7		ng/L		97	70 - 130		
F-53B Minor			37.7	31.5		ng/L		84	70 - 130		
10:2 FTS			38.6	47.7		ng/L		124	70 - 130		
DONA			37.7	39.3		ng/L		104	70 - 130		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*96*		*25 - 150*
13C5 PFPeA	*98*		*25 - 150*
13C2 PFHxA	*100*		*25 - 150*
13C4 PFHpA	*104*		*25 - 150*
13C4 PFOA	*110*		*25 - 150*
13C5 PFNA	*102*		*25 - 150*
13C2 PFDA	*114*		*25 - 150*
13C2 PFUnA	*125*		*25 - 150*
13C2 PFDoA	*126*		*25 - 150*
13C2 PFTeDA	*127*		*25 - 150*
18O2 PFHxS	*116*		*25 - 150*
13C4 PFOS	*106*		*25 - 150*
13C8 FOSA	*105*		*25 - 150*
d3-NMeFOSAA	*101*		*25 - 150*
d5-NEtFOSAA	*104*		*25 - 150*
M2-6:2 FTS	*106*		*25 - 150*
M2-8:2 FTS	*111*		*25 - 150*
M2-4:2 FTS	*100*		*25 - 150*
d9-N-EtFOSE-M	*21*		*10 - 120*
d-N-MeFOSA-M	*66*		*20 - 150*
d7-N-MeFOSE-M	*21*		*10 - 120*

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

Lab Sample ID: LCS 320-327244/2-A
Matrix: Water
Analysis Batch: 327439

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 327244

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
d-N-EtFOSA-M	*39*		*20 - 150*
13C2 PFHxDA	*137*		*25 - 150*
13C3 HFPO-DA	*109*		*25 - 150*

Lab Sample ID: LCSD 320-327244/3-A
Matrix: Water
Analysis Batch: 327439

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 327244

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			40.0	43.0		ng/L		107	70 - 130	2	30
Perfluoropentanoic acid (PFPeA)			40.0	39.6		ng/L		99	66 - 126	3	30
Perfluorohexanoic acid (PFHxA)			40.0	41.3		ng/L		103	66 - 126	2	30
Perfluoroheptanoic acid (PFHpA)			40.0	40.6		ng/L		102	66 - 126	6	30
Perfluorooctanoic acid (PFOA)			40.0	37.9		ng/L		95	64 - 124	4	30
Perfluorononanoic acid (PFNA)			40.0	40.7		ng/L		102	68 - 128	4	30
Perfluorodecanoic acid (PFDA)			40.0	40.5		ng/L		101	69 - 129	9	30
Perfluoroundecanoic acid (PFUnA)			40.0	35.3		ng/L		88	60 - 120	4	30
Perfluorododecanoic acid (PFDoA)			40.0	38.0		ng/L		95	71 - 131	2	30
Perfluorotridecanoic acid (PFTriA)			40.0	40.6		ng/L		101	72 - 132	4	30
Perfluorotetradecanoic acid (PFTeA)			40.0	42.5		ng/L		106	68 - 128	9	30
Perfluoro-n-hexadecanoic acid (PFHxDA)			40.0	39.7		ng/L		99	72 - 132	5	30
Perfluorobutanesulfonic acid (PFBS)			35.4	33.8		ng/L		96	73 - 133	3	30
Perfluoro-n-octadecanoic acid (PFODA)			40.0	44.4		ng/L		111	74 - 134	0	30
Perfluoropentanesulfonic acid (PFPeS)			37.5	34.6		ng/L		92	70 - 130	0	30
Perfluorohexanesulfonic acid (PFHxS)			36.4	30.8		ng/L		85	63 - 123	1	30
Perfluoroheptanesulfonic Acid (PFHpS)			38.1	40.3		ng/L		106	68 - 128	2	30
Perfluorooctanesulfonic acid (PFOS)			37.1	36.7		ng/L		99	67 - 127	0	30
Perfluorononanesulfonic acid (PFNS)			38.4	41.2		ng/L		107	70 - 130	2	30
Perfluorodecanesulfonic acid (PFDS)			38.6	39.7		ng/L		103	68 - 128	4	30
Perfluorooctanesulfonamide (FOSA)			40.0	40.1		ng/L		100	70 - 130	4	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			40.0	43.1		ng/L		108	67 - 127	0	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			40.0	39.4		ng/L		98	65 - 125	7	30
4:2 FTS			37.4	42.9		ng/L		115	70 - 130	6	30
6:2 FTS			37.9	39.8		ng/L		105	66 - 126	12	30
8:2 FTS			38.3	39.3		ng/L		103	67 - 127	1	30
NEtFOSA			40.0	47.4		ng/L		118	65 - 135	2	30
NMeFOSA			40.0	44.0		ng/L		110	65 - 135	5	30

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

Lab Sample ID: LCSD 320-327244/3-A
Matrix: Water
Analysis Batch: 327439

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 327244

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
NMeFOSE			40.0	39.5		ng/L		99	65 - 135	11	30
NEtFOSE			40.0	38.6		ng/L		97	65 - 135	6	30
Perfluorododecanesulfonic acid (PFDoS)			38.7	41.3		ng/L		107	70 - 130	3	30
F-53B Major			37.3	36.9		ng/L		99	70 - 130	1	30
HFPO-DA (GenX)			40.0	37.1		ng/L		93	70 - 130	4	30
F-53B Minor			37.7	31.7		ng/L		84	70 - 130	1	30
10:2 FTS			38.6	40.4		ng/L		105	70 - 130	17	30
DONA			37.7	42.4		ng/L		113	70 - 130	8	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*97*		*25 - 150*
13C5 PFPeA	*102*		*25 - 150*
13C2 PFHxA	*100*		*25 - 150*
13C4 PFHpA	*102*		*25 - 150*
13C4 PFOA	*112*		*25 - 150*
13C5 PFNA	*107*		*25 - 150*
13C2 PFDA	*116*		*25 - 150*
13C2 PFUnA	*121*		*25 - 150*
13C2 PFDoA	*123*		*25 - 150*
13C2 PFTeDA	*129*		*25 - 150*
18O2 PFHxS	*111*		*25 - 150*
13C4 PFOS	*97*		*25 - 150*
13C8 FOSA	*97*		*25 - 150*
d3-NMeFOSAA	*93*		*25 - 150*
d5-NEtFOSAA	*96*		*25 - 150*
M2-6:2 FTS	*99*		*25 - 150*
M2-8:2 FTS	*103*		*25 - 150*
M2-4:2 FTS	*84*		*25 - 150*
d9-N-EtFOSE-M	*19*		*10 - 120*
d-N-MeFOSA-M	*66*		*20 - 150*
d7-N-MeFOSE-M	*22*		*10 - 120*
d-N-EtFOSA-M	*35*		*20 - 150*
13C2 PFHxDA	*145*		*25 - 150*
13C3 HFPO-DA	*142*		*25 - 150*

QC Association Summary

Client: Moraine Environmental Inc
Job ID: 320-54781-1
Project/Site: St. Francis Auto Wreckers - #6078

LCMS

Prep Batch: 327244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-54781-1	PZ-1	Total/NA	Water	3535	
320-54781-1 - DL	PZ-1	Total/NA	Water	3535	
320-54781-2	MW-3B	Total/NA	Water	3535	
320-54781-3	MW-6	Total/NA	Water	3535	
320-54781-4	FIELD BLANK	Total/NA	Water	3535	
MB 320-327244/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-327244/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-327244/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 327439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-54781-1	PZ-1	Total/NA	Water	537 (modified)	327244
320-54781-1 - DL	PZ-1	Total/NA	Water	537 (modified)	327244
320-54781-2	MW-3B	Total/NA	Water	537 (modified)	327244
320-54781-3	MW-6	Total/NA	Water	537 (modified)	327244
320-54781-4	FIELD BLANK	Total/NA	Water	537 (modified)	327244
MB 320-327244/1-A	Method Blank	Total/NA	Water	537 (modified)	327244
LCS 320-327244/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	327244
LCSD 320-327244/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	327244

Lab Chronicle

Client: Moraine Environmental Inc
Job ID: 320-54781-1
Project/Site: St. Francis Auto Wreckers - #6078

Client Sample ID: PZ-1
Lab Sample ID: 320-54781-1
Date Collected: 09/26/19 13:30
Matrix: Water
Date Received: 09/27/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			288.7 mL	10 mL	327244	09/30/19 08:03	AF	TAL SAC
Total/NA	Analysis	537 (modified)		1			327439	10/01/19 13:18	VPM	TAL SAC
Total/NA	Prep	3535	DL		288.7 mL	10 mL	327244	09/30/19 08:03	AF	TAL SAC
Total/NA	Analysis	537 (modified)	DL	2			327439	10/01/19 17:54	VPM	TAL SAC

Client Sample ID: MW-3B
Lab Sample ID: 320-54781-2
Date Collected: 09/26/19 13:45
Matrix: Water
Date Received: 09/27/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			303.7 mL	10 mL	327244	09/30/19 08:03	AF	TAL SAC
Total/NA	Analysis	537 (modified)		1			327439	10/01/19 13:46	VPM	TAL SAC

Client Sample ID: MW-6
Lab Sample ID: 320-54781-3
Date Collected: 09/26/19 14:00
Matrix: Water
Date Received: 09/27/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			293 mL	10 mL	327244	09/30/19 08:03	AF	TAL SAC
Total/NA	Analysis	537 (modified)		1			327439	10/01/19 13:56	VPM	TAL SAC

Client Sample ID: FIELD BLANK
Lab Sample ID: 320-54781-4
Date Collected: 09/26/19 14:00
Matrix: Water
Date Received: 09/27/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			282.6 mL	10 mL	327244	09/30/19 08:03	AF	TAL SAC
Total/NA	Analysis	537 (modified)		1			327439	10/01/19 17:45	VPM	TAL SAC

Laboratory References:

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

Accreditation/Certification Summary

Client: Moraine Environmental Inc
Job ID: 320-54781-1
Project/Site: St. Francis Auto Wreckers - #6078

Laboratory: Eurofins TestAmerica, Sacramento

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

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4040	01-29-20

Method Summary

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

Job ID: 320-54781-1

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

Sample Summary

Client: Moraine Environmental Inc
Job ID: 320-54781-1
Project/Site: St. Francis Auto Wreckers - #6078

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-54781-1	PZ-1	Water	09/26/19 13:30	09/27/19 09:00	
320-54781-2	MW-3B	Water	09/26/19 13:45	09/27/19 09:00	
320-54781-3	MW-6	Water	09/26/19 14:00	09/27/19 09:00	
320-54781-4	FIELD BLANK	Water	09/26/19 14:00	09/27/19 09:00	

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Phone: 916-373-5600 Fax: 916-372-1059

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler: Dave Lennon	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 320-28600-6748.1
Client Contact: Dave Lennon	Phone: 262-692-3345	E-Mail: sandie.fredrick@testamericainc.com		Page: Page 1 of 1
Company: Moraine Environmental, Inc				Job #:
Address: 766 Tower Drive	Due Date Requested:			
City: Fredonia	TAT Requested (days): standard			
State, Zip: WI, 53021				
Phone: 262-692-3345(Tel)	PO #: Purchase Order not required			
Email: dmlennon@yahoo.com	WO #:			
Project Name: ~~PFAS, WI Groundwater~~ St. Francis Auto Wrecking	Project #: 32013809			
Site: Job #6078	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA - PFAS, Wisconsin List (36 Analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
PZ-1			G	Water	N		X		
MW-3B			G	Water	N		X		
MW-6			G	Water	N		X		
Field Blank			G	Water	N		X		
				Water					
				Water					

320-54781 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Dave Lennon	9/26/19 14:20	Moraine		9/27/19 - 9:80	ETA CAC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☒ Yes ☐ No	Custody Seal No.: 747005	Cooler Temperature(s) °C and Other Remarks: OBS 3.5°C Corr. 4.0°C

Ver: 01/16/2019

no time/date ct 9/28/19

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11/7/2019

Login Sample Receipt Checklist

Client: Moraine Environmental Inc

Job Number: 320-54781-1

Login Number: 54781
List Number: 1
Creator: Her, David A

List Source: Eurofins TestAmerica, Sacramento

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	747005
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	Refer to Job Narrative for details.
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	

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

October 04, 2019

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

RE: Project: 6078 St. Francis Auto Wreckers
Pace Project No.: 10493398

Dear Tom Sweet:
Enclosed are the analytical results for sample(s) received by the laboratory on September 27, 2019. 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,

Kirsten Hogberg
kirsten.hogberg@pacelabs.com
(612)607-1700
Project Manager

Enclosures

cc: Dave Lennon, Moraine
Moraine, Moraine

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: 6078 St. Francis Auto Wreckers
Pace Project No.: 10493398

Minnesota Certification IDs

1700 Elm Street SE, Minneapolis, MN 55414-2485
A2LA Certification #: 2926.01
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
CNMI Saipan Certification #: MP0003
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Guam EPA Certification #: MN00064
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: 03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Massachusetts Certification #: M-MN064
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Certifcation #: via MN 027-053-137
Minnesota Petrofund Certification #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01

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SAMPLE SUMMARY

Project: 6078 St. Francis Auto Wreckers
Pace Project No.: 10493398

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10493398001	**RSS-1**	Air	09/26/19 15:47	09/27/19 11:10
10493398002	**RSS-1 CERT 3392**	Air	09/26/19 15:47	09/27/19 11:10
10493398003	**RSS-2**	Air	09/26/19 16:01	09/27/19 11:10
10493398004	**RSS-2 CERT 0315**	Air	09/26/19 16:01	09/27/19 11:10

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 6078 St. Francis Auto Wreckers
Pace Project No.: 10493398

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10493398001	**RSS-1**	TO-15	MG2	61	PASI-M
10493398002	**RSS-1 CERT 3392**	TO-15	MJL	61	PASI-M
10493398003	**RSS-2**	TO-15	MG2	61	PASI-M
10493398004	**RSS-2 CERT 0315**	TO-15	AFV	61	PASI-M

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ANALYTICAL RESULTS

Project: 6078 St. Francis Auto Wreckers
Pace Project No.: 10493398

Sample: RSS-1 **Lab ID: 10493398001** Collected: 09/26/19 15:47 Received: 09/27/19 11:10 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Acetone	**101**	ug/m3	4.7	2.4	1.96		10/03/19 19:20	67-64-1	
Benzene	**12.8**	ug/m3	0.64	0.30	1.96		10/03/19 19:20	71-43-2	
Benzyl chloride	**<2.4**	ug/m3	5.2	2.4	1.96		10/03/19 19:20	100-44-7	
Bromodichloromethane	**0.88J**	ug/m3	2.7	0.72	1.96		10/03/19 19:20	75-27-4	
Bromoform	**<2.8**	ug/m3	10.3	2.8	1.96		10/03/19 19:20	75-25-2	
Bromomethane	**<0.44**	ug/m3	1.5	0.44	1.96		10/03/19 19:20	74-83-9	
1,3-Butadiene	**<0.25**	ug/m3	0.88	0.25	1.96		10/03/19 19:20	106-99-0	
2-Butanone (MEK)	**18.5**	ug/m3	5.9	0.72	1.96		10/03/19 19:20	78-93-3	
Carbon disulfide	**21.2**	ug/m3	1.2	0.43	1.96		10/03/19 19:20	75-15-0	
Carbon tetrachloride	**<0.84**	ug/m3	2.5	0.84	1.96		10/03/19 19:20	56-23-5	
Chlorobenzene	**<0.54**	ug/m3	1.8	0.54	1.96		10/03/19 19:20	108-90-7	
Chloroethane	**<0.51**	ug/m3	1.1	0.51	1.96		10/03/19 19:20	75-00-3	
Chloroform	**2.9**	ug/m3	0.97	0.38	1.96		10/03/19 19:20	67-66-3	
Chloromethane	**<0.31**	ug/m3	0.82	0.31	1.96		10/03/19 19:20	74-87-3	
Cyclohexane	**22.2**	ug/m3	3.4	0.69	1.96		10/03/19 19:20	110-82-7	
Dibromochloromethane	**<1.4**	ug/m3	3.4	1.4	1.96		10/03/19 19:20	124-48-1	
1,2-Dibromoethane (EDB)	**<0.72**	ug/m3	1.5	0.72	1.96		10/03/19 19:20	106-93-4	
1,2-Dichlorobenzene	**<0.98**	ug/m3	2.4	0.98	1.96		10/03/19 19:20	95-50-1	
1,3-Dichlorobenzene	**<1.1**	ug/m3	2.4	1.1	1.96		10/03/19 19:20	541-73-1	
1,4-Dichlorobenzene	**<2.0**	ug/m3	6.0	2.0	1.96		10/03/19 19:20	106-46-7	
Dichlorodifluoromethane	**1.7J**	ug/m3	2.0	0.57	1.96		10/03/19 19:20	75-71-8	
1,1-Dichloroethane	**<0.44**	ug/m3	1.6	0.44	1.96		10/03/19 19:20	75-34-3	
1,2-Dichloroethane	**<0.29**	ug/m3	0.81	0.29	1.96		10/03/19 19:20	107-06-2	
1,1-Dichloroethene	**<0.54**	ug/m3	1.6	0.54	1.96		10/03/19 19:20	75-35-4	
cis-1,2-Dichloroethene	**<0.43**	ug/m3	1.6	0.43	1.96		10/03/19 19:20	156-59-2	
trans-1,2-Dichloroethene	**<0.56**	ug/m3	1.6	0.56	1.96		10/03/19 19:20	156-60-5	
1,2-Dichloropropane	**<0.45**	ug/m3	1.8	0.45	1.96		10/03/19 19:20	78-87-5	
cis-1,3-Dichloropropene	**<0.60**	ug/m3	1.8	0.60	1.96		10/03/19 19:20	10061-01-5	
trans-1,3-Dichloropropene	**<0.86**	ug/m3	1.8	0.86	1.96		10/03/19 19:20	10061-02-6	
Dichlorotetrafluoroethane	**<0.86**	ug/m3	2.8	0.86	1.96		10/03/19 19:20	76-14-2	
Ethanol	**380**	ug/m3	3.8	1.6	1.96		10/03/19 19:20	64-17-5	
Ethyl acetate	**<0.37**	ug/m3	1.4	0.37	1.96		10/03/19 19:20	141-78-6	
Ethylbenzene	**37.7**	ug/m3	1.7	0.60	1.96		10/03/19 19:20	100-41-4	
4-Ethyltoluene	**20.5**	ug/m3	4.9	1.1	1.96		10/03/19 19:20	622-96-8	
n-Heptane	**26.3**	ug/m3	1.6	0.74	1.96		10/03/19 19:20	142-82-5	
Hexachloro-1,3-butadiene	**<3.9**	ug/m3	10.6	3.9	1.96		10/03/19 19:20	87-68-3	
n-Hexane	**17.2**	ug/m3	1.4	0.61	1.96		10/03/19 19:20	110-54-3	
2-Hexanone	**<1.5**	ug/m3	8.2	1.5	1.96		10/03/19 19:20	591-78-6	
Methylene Chloride	**3.9J**	ug/m3	6.9	2.4	1.96		10/03/19 19:20	75-09-2	
4-Methyl-2-pentanone (MIBK)	**7.8J**	ug/m3	8.2	1.0	1.96		10/03/19 19:20	108-10-1	
Methyl-tert-butyl ether	**<1.3**	ug/m3	7.2	1.3	1.96		10/03/19 19:20	1634-04-4	
Naphthalene	**11.9**	ug/m3	5.2	2.6	1.96		10/03/19 19:20	91-20-3	
2-Propanol	**4.7J**	ug/m3	4.9	1.4	1.96		10/03/19 19:20	67-63-0	
Propylene	**<0.27**	ug/m3	0.69	0.27	1.96		10/03/19 19:20	115-07-1	
Styrene	**7.4**	ug/m3	1.7	0.67	1.96		10/03/19 19:20	100-42-5	
1,1,2,2-Tetrachloroethane	**<0.61**	ug/m3	1.4	0.61	1.96		10/03/19 19:20	79-34-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 6078 St. Francis Auto Wreckers
Pace Project No.: 10493398

Sample: RSS-1 **Lab ID: 10493398001** Collected: 09/26/19 15:47 Received: 09/27/19 11:10 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Tetrachloroethene	**9.5**	ug/m3	1.4	0.62	1.96		10/03/19 19:20	127-18-4	
Tetrahydrofuran	**29.4**	ug/m3	1.2	0.51	1.96		10/03/19 19:20	109-99-9	
Toluene	**685**	ug/m3	15.0	6.9	19.6		10/04/19 11:13	108-88-3	
1,2,4-Trichlorobenzene	**<7.3**	ug/m3	14.8	7.3	1.96		10/03/19 19:20	120-82-1	
1,1,1-Trichloroethane	**<0.61**	ug/m3	2.2	0.61	1.96		10/03/19 19:20	71-55-6	
1,1,2-Trichloroethane	**<0.47**	ug/m3	1.1	0.47	1.96		10/03/19 19:20	79-00-5	
Trichloroethene	**<0.50**	ug/m3	1.1	0.50	1.96		10/03/19 19:20	79-01-6	
Trichlorofluoromethane	**1.9J**	ug/m3	2.2	0.72	1.96		10/03/19 19:20	75-69-4	
1,1,2-Trichlorotrifluoroethane	**<1.1**	ug/m3	3.1	1.1	1.96		10/03/19 19:20	76-13-1	
1,2,4-Trimethylbenzene	**65.9**	ug/m3	2.0	0.89	1.96		10/03/19 19:20	95-63-6	
1,3,5-Trimethylbenzene	**17.7**	ug/m3	2.0	0.78	1.96		10/03/19 19:20	108-67-8	
Vinyl acetate	**<0.53**	ug/m3	1.4	0.53	1.96		10/03/19 19:20	108-05-4	
Vinyl chloride	**<0.25**	ug/m3	0.51	0.25	1.96		10/03/19 19:20	75-01-4	
m&p-Xylene	**137**	ug/m3	3.5	1.4	1.96		10/03/19 19:20	179601-23-1	
o-Xylene	**49.7**	ug/m3	1.7	0.67	1.96		10/03/19 19:20	95-47-6	

Sample: RSS-1 CERT 3392 **Lab ID: 10493398002** Collected: 09/26/19 15:47 Received: 09/27/19 11:10 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15								
Acetone	**<0.60**	ug/m3	1.2	0.60	0.5		09/09/19 08:44	67-64-1	
Benzene	**<0.076**	ug/m3	0.16	0.076	0.5		09/09/19 08:44	71-43-2	
Benzyl chloride	**<0.60**	ug/m3	1.3	0.60	0.5		09/09/19 08:44	100-44-7	
Bromodichloromethane	**<0.18**	ug/m3	0.68	0.18	0.5		09/09/19 08:44	75-27-4	
Bromoform	**<0.71**	ug/m3	2.6	0.71	0.5		09/09/19 08:44	75-25-2	
Bromomethane	**<0.11**	ug/m3	0.39	0.11	0.5		09/09/19 08:44	74-83-9	
1,3-Butadiene	**<0.064**	ug/m3	0.22	0.064	0.5		09/09/19 08:44	106-99-0	
2-Butanone (MEK)	**<0.18**	ug/m3	1.5	0.18	0.5		09/09/19 08:44	78-93-3	
Carbon disulfide	**<0.11**	ug/m3	0.32	0.11	0.5		09/09/19 08:44	75-15-0	
Carbon tetrachloride	**<0.21**	ug/m3	0.64	0.21	0.5		09/09/19 08:44	56-23-5	
Chlorobenzene	**<0.14**	ug/m3	0.47	0.14	0.5		09/09/19 08:44	108-90-7	
Chloroethane	**<0.13**	ug/m3	0.27	0.13	0.5		09/09/19 08:44	75-00-3	
Chloroform	**<0.098**	ug/m3	0.25	0.098	0.5		09/09/19 08:44	67-66-3	
Chloromethane	**<0.078**	ug/m3	0.21	0.078	0.5		09/09/19 08:44	74-87-3	
Cyclohexane	**<0.18**	ug/m3	0.88	0.18	0.5		09/09/19 08:44	110-82-7	
Dibromochloromethane	**<0.36**	ug/m3	0.86	0.36	0.5		09/09/19 08:44	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/m3	0.39	0.18	0.5		09/09/19 08:44	106-93-4	
1,2-Dichlorobenzene	**<0.25**	ug/m3	0.61	0.25	0.5		09/09/19 08:44	95-50-1	
1,3-Dichlorobenzene	**<0.29**	ug/m3	0.61	0.29	0.5		09/09/19 08:44	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/m3	1.5	0.50	0.5		09/09/19 08:44	106-46-7	
Dichlorodifluoromethane	**<0.15**	ug/m3	0.50	0.15	0.5		09/09/19 08:44	75-71-8	
1,1-Dichloroethane	**<0.11**	ug/m3	0.41	0.11	0.5		09/09/19 08:44	75-34-3	
1,2-Dichloroethane	**<0.075**	ug/m3	0.21	0.075	0.5		09/09/19 08:44	107-06-2	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 6078 St. Francis Auto Wreckers
Pace Project No.: 10493398

Sample: RSS-1 CERT 3392 **Lab ID: 10493398002** Collected: 09/26/19 15:47 Received: 09/27/19 11:10 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15								
1,1-Dichloroethene	**<0.14**	ug/m3	0.40	0.14	0.5		09/09/19 08:44	75-35-4	
cis-1,2-Dichloroethene	**<0.11**	ug/m3	0.40	0.11	0.5		09/09/19 08:44	156-59-2	
trans-1,2-Dichloroethene	**<0.14**	ug/m3	0.40	0.14	0.5		09/09/19 08:44	156-60-5	
1,2-Dichloropropane	**<0.12**	ug/m3	0.47	0.12	0.5		09/09/19 08:44	78-87-5	
cis-1,3-Dichloropropene	**<0.15**	ug/m3	0.46	0.15	0.5		09/09/19 08:44	10061-01-5	
trans-1,3-Dichloropropene	**<0.22**	ug/m3	0.46	0.22	0.5		09/09/19 08:44	10061-02-6	
Dichlorotetrafluoroethane	**<0.22**	ug/m3	0.71	0.22	0.5		09/09/19 08:44	76-14-2	
Ethanol	**<0.41**	ug/m3	0.96	0.41	0.5		09/09/19 08:44	64-17-5	
Ethyl acetate	**<0.095**	ug/m3	0.37	0.095	0.5		09/09/19 08:44	141-78-6	
Ethylbenzene	**<0.15**	ug/m3	0.44	0.15	0.5		09/09/19 08:44	100-41-4	
4-Ethyltoluene	**<0.28**	ug/m3	1.2	0.28	0.5		09/09/19 08:44	622-96-8	
n-Heptane	**<0.19**	ug/m3	0.42	0.19	0.5		09/09/19 08:44	142-82-5	
Hexachloro-1,3-butadiene	**<0.98**	ug/m3	2.7	0.98	0.5		09/09/19 08:44	87-68-3	
n-Hexane	**<0.16**	ug/m3	0.36	0.16	0.5		09/09/19 08:44	110-54-3	
2-Hexanone	**<0.37**	ug/m3	2.1	0.37	0.5		09/09/19 08:44	591-78-6	
Methylene Chloride	**<0.60**	ug/m3	1.8	0.60	0.5		09/09/19 08:44	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.26**	ug/m3	2.1	0.26	0.5		09/09/19 08:44	108-10-1	
Methyl-tert-butyl ether	**<0.33**	ug/m3	1.8	0.33	0.5		09/09/19 08:44	1634-04-4	
Naphthalene	**<0.66**	ug/m3	1.3	0.66	0.5		09/09/19 08:44	91-20-3	
2-Propanol	**<0.35**	ug/m3	1.2	0.35	0.5		09/09/19 08:44	67-63-0	
Propylene	**<0.070**	ug/m3	0.18	0.070	0.5		09/09/19 08:44	115-07-1	
Styrene	**<0.17**	ug/m3	0.43	0.17	0.5		09/09/19 08:44	100-42-5	
1,1,2,2-Tetrachloroethane	**<0.15**	ug/m3	0.35	0.15	0.5		09/09/19 08:44	79-34-5	
Tetrachloroethene	**<0.16**	ug/m3	0.34	0.16	0.5		09/09/19 08:44	127-18-4	
Tetrahydrofuran	**<0.13**	ug/m3	0.30	0.13	0.5		09/09/19 08:44	109-99-9	
Toluene	**<0.18**	ug/m3	0.38	0.18	0.5		09/09/19 08:44	108-88-3	
1,2,4-Trichlorobenzene	**<1.9**	ug/m3	3.8	1.9	0.5		09/09/19 08:44	120-82-1	
1,1,1-Trichloroethane	**<0.15**	ug/m3	0.56	0.15	0.5		09/09/19 08:44	71-55-6	
1,1,2-Trichloroethane	**<0.12**	ug/m3	0.28	0.12	0.5		09/09/19 08:44	79-00-5	
Trichloroethene	**<0.13**	ug/m3	0.27	0.13	0.5		09/09/19 08:44	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/m3	0.57	0.18	0.5		09/09/19 08:44	75-69-4	
1,1,2-Trichlorotrifluoroethane	**<0.28**	ug/m3	0.78	0.28	0.5		09/09/19 08:44	76-13-1	
1,2,4-Trimethylbenzene	**<0.23**	ug/m3	0.50	0.23	0.5		09/09/19 08:44	95-63-6	
1,3,5-Trimethylbenzene	**<0.20**	ug/m3	0.50	0.20	0.5		09/09/19 08:44	108-67-8	
Vinyl acetate	**<0.14**	ug/m3	0.36	0.14	0.5		09/09/19 08:44	108-05-4	
Vinyl chloride	**<0.063**	ug/m3	0.13	0.063	0.5		09/09/19 08:44	75-01-4	
m&p-Xylene	**<0.35**	ug/m3	0.88	0.35	0.5		09/09/19 08:44	179601-23-1	
o-Xylene	**<0.17**	ug/m3	0.44	0.17	0.5		09/09/19 08:44	95-47-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 6078 St. Francis Auto Wreckers
Pace Project No.: 10493398

Sample: RSS-2 **Lab ID: 10493398003** Collected: 09/26/19 16:01 Received: 09/27/19 11:10 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Acetone	**96.1**	ug/m3	3.2	1.6	1.34		10/03/19 18:54	67-64-1	
Benzene	**3.2**	ug/m3	0.44	0.21	1.34		10/03/19 18:54	71-43-2	
Benzyl chloride	**<1.6**	ug/m3	3.5	1.6	1.34		10/03/19 18:54	100-44-7	
Bromodichloromethane	**<0.49**	ug/m3	1.8	0.49	1.34		10/03/19 18:54	75-27-4	
Bromoform	**<1.9**	ug/m3	7.0	1.9	1.34		10/03/19 18:54	75-25-2	
Bromomethane	**<0.30**	ug/m3	1.1	0.30	1.34		10/03/19 18:54	74-83-9	
1,3-Butadiene	**<0.17**	ug/m3	0.60	0.17	1.34		10/03/19 18:54	106-99-0	
2-Butanone (MEK)	**16.5**	ug/m3	4.0	0.49	1.34		10/03/19 18:54	78-93-3	
Carbon disulfide	**6.1**	ug/m3	0.85	0.29	1.34		10/03/19 18:54	75-15-0	
Carbon tetrachloride	**<0.57**	ug/m3	1.7	0.57	1.34		10/03/19 18:54	56-23-5	
Chlorobenzene	**<0.37**	ug/m3	1.3	0.37	1.34		10/03/19 18:54	108-90-7	
Chloroethane	**<0.35**	ug/m3	0.72	0.35	1.34		10/03/19 18:54	75-00-3	
Chloroform	**1.1**	ug/m3	0.66	0.26	1.34		10/03/19 18:54	67-66-3	
Chloromethane	**0.98**	ug/m3	0.56	0.21	1.34		10/03/19 18:54	74-87-3	
Cyclohexane	**22.7**	ug/m3	2.3	0.47	1.34		10/03/19 18:54	110-82-7	
Dibromochloromethane	**<0.96**	ug/m3	2.3	0.96	1.34		10/03/19 18:54	124-48-1	
1,2-Dibromoethane (EDB)	**<0.49**	ug/m3	1.0	0.49	1.34		10/03/19 18:54	106-93-4	
1,2-Dichlorobenzene	**<0.67**	ug/m3	1.6	0.67	1.34		10/03/19 18:54	95-50-1	
1,3-Dichlorobenzene	**<0.78**	ug/m3	1.6	0.78	1.34		10/03/19 18:54	541-73-1	
1,4-Dichlorobenzene	**<1.3**	ug/m3	4.1	1.3	1.34		10/03/19 18:54	106-46-7	
Dichlorodifluoromethane	**1.9**	ug/m3	1.4	0.39	1.34		10/03/19 18:54	75-71-8	
1,1-Dichloroethane	**<0.30**	ug/m3	1.1	0.30	1.34		10/03/19 18:54	75-34-3	
1,2-Dichloroethane	**<0.20**	ug/m3	0.55	0.20	1.34		10/03/19 18:54	107-06-2	
1,1-Dichloroethene	**<0.37**	ug/m3	1.1	0.37	1.34		10/03/19 18:54	75-35-4	
cis-1,2-Dichloroethene	**<0.29**	ug/m3	1.1	0.29	1.34		10/03/19 18:54	156-59-2	
trans-1,2-Dichloroethene	**4.3**	ug/m3	1.1	0.38	1.34		10/03/19 18:54	156-60-5	
1,2-Dichloropropane	**<0.31**	ug/m3	1.3	0.31	1.34		10/03/19 18:54	78-87-5	
cis-1,3-Dichloropropene	**<0.41**	ug/m3	1.2	0.41	1.34		10/03/19 18:54	10061-01-5	
trans-1,3-Dichloropropene	**<0.59**	ug/m3	1.2	0.59	1.34		10/03/19 18:54	10061-02-6	
Dichlorotetrafluoroethane	**<0.59**	ug/m3	1.9	0.59	1.34		10/03/19 18:54	76-14-2	
Ethanol	**107**	ug/m3	2.6	1.1	1.34		10/03/19 18:54	64-17-5	
Ethyl acetate	**76.4**	ug/m3	0.98	0.25	1.34		10/03/19 18:54	141-78-6	
Ethylbenzene	**14.9**	ug/m3	1.2	0.41	1.34		10/03/19 18:54	100-41-4	
4-Ethyltoluene	**5.1**	ug/m3	3.4	0.76	1.34		10/03/19 18:54	622-96-8	
n-Heptane	**24.0**	ug/m3	1.1	0.51	1.34		10/03/19 18:54	142-82-5	
Hexachloro-1,3-butadiene	**<2.6**	ug/m3	7.3	2.6	1.34		10/03/19 18:54	87-68-3	
n-Hexane	**21.8**	ug/m3	0.96	0.42	1.34		10/03/19 18:54	110-54-3	
2-Hexanone	**<1.0**	ug/m3	5.6	1.0	1.34		10/03/19 18:54	591-78-6	
Methylene Chloride	**243**	ug/m3	4.7	1.6	1.34		10/03/19 18:54	75-09-2	
4-Methyl-2-pentanone (MIBK)	**9.3**	ug/m3	5.6	0.69	1.34		10/03/19 18:54	108-10-1	
Methyl-tert-butyl ether	**<0.89**	ug/m3	4.9	0.89	1.34		10/03/19 18:54	1634-04-4	
Naphthalene	**3.6J**	ug/m3	3.6	1.8	1.34		10/03/19 18:54	91-20-3	
2-Propanol	**55.9**	ug/m3	3.4	0.93	1.34		10/03/19 18:54	67-63-0	
Propylene	**<0.19**	ug/m3	0.47	0.19	1.34		10/03/19 18:54	115-07-1	
Styrene	**8.7**	ug/m3	1.2	0.46	1.34		10/03/19 18:54	100-42-5	
1,1,2,2-Tetrachloroethane	**<0.41**	ug/m3	0.94	0.41	1.34		10/03/19 18:54	79-34-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 6078 St. Francis Auto Wreckers
Pace Project No.: 10493398

Sample: RSS-2 **Lab ID: 10493398003** Collected: 09/26/19 16:01 Received: 09/27/19 11:10 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Tetrachloroethene	**2.5**	ug/m3	0.92	0.42	1.34		10/03/19 18:54	127-18-4	
Tetrahydrofuran	**4.6**	ug/m3	0.80	0.35	1.34		10/03/19 18:54	109-99-9	
Toluene	**199**	ug/m3	6.9	3.2	8.98		10/04/19 11:38	108-88-3	
1,2,4-Trichlorobenzene	**<5.0**	ug/m3	10.1	5.0	1.34		10/03/19 18:54	120-82-1	
1,1,1-Trichloroethane	**<0.41**	ug/m3	1.5	0.41	1.34		10/03/19 18:54	71-55-6	
1,1,2-Trichloroethane	**<0.32**	ug/m3	0.74	0.32	1.34		10/03/19 18:54	79-00-5	
Trichloroethene	**0.82**	ug/m3	0.73	0.34	1.34		10/03/19 18:54	79-01-6	
Trichlorofluoromethane	**1.6**	ug/m3	1.5	0.49	1.34		10/03/19 18:54	75-69-4	
1,1,2-Trichlorotrifluoroethane	**<0.76**	ug/m3	2.1	0.76	1.34		10/03/19 18:54	76-13-1	
1,2,4-Trimethylbenzene	**14.9**	ug/m3	1.3	0.61	1.34		10/03/19 18:54	95-63-6	
1,3,5-Trimethylbenzene	**4.0**	ug/m3	1.3	0.53	1.34		10/03/19 18:54	108-67-8	
Vinyl acetate	**1.8**	ug/m3	0.96	0.36	1.34		10/03/19 18:54	108-05-4	
Vinyl chloride	**<0.17**	ug/m3	0.35	0.17	1.34		10/03/19 18:54	75-01-4	
m&p-Xylene	**59.7**	ug/m3	2.4	0.94	1.34		10/03/19 18:54	179601-23-1	
o-Xylene	**19.7**	ug/m3	1.2	0.46	1.34		10/03/19 18:54	95-47-6	

Sample: RSS-2 CERT 0315 **Lab ID: 10493398004** Collected: 09/26/19 16:01 Received: 09/27/19 11:10 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15								
Acetone	**0.75J**	ug/m3	1.2	0.60	0.5		09/11/19 13:43	67-64-1	
Benzene	**<0.076**	ug/m3	0.16	0.076	0.5		09/11/19 13:43	71-43-2	
Benzyl chloride	**<0.60**	ug/m3	1.3	0.60	0.5		09/11/19 13:43	100-44-7	
Bromodichloromethane	**<0.18**	ug/m3	0.68	0.18	0.5		09/11/19 13:43	75-27-4	
Bromoform	**<0.71**	ug/m3	2.6	0.71	0.5		09/11/19 13:43	75-25-2	
Bromomethane	**<0.11**	ug/m3	0.39	0.11	0.5		09/11/19 13:43	74-83-9	
1,3-Butadiene	**<0.064**	ug/m3	0.22	0.064	0.5		09/11/19 13:43	106-99-0	
2-Butanone (MEK)	**<0.18**	ug/m3	1.5	0.18	0.5		09/11/19 13:43	78-93-3	
Carbon disulfide	**<0.11**	ug/m3	0.32	0.11	0.5		09/11/19 13:43	75-15-0	
Carbon tetrachloride	**<0.21**	ug/m3	0.64	0.21	0.5		09/11/19 13:43	56-23-5	
Chlorobenzene	**<0.14**	ug/m3	0.47	0.14	0.5		09/11/19 13:43	108-90-7	
Chloroethane	**<0.13**	ug/m3	0.27	0.13	0.5		09/11/19 13:43	75-00-3	
Chloroform	**<0.098**	ug/m3	0.25	0.098	0.5		09/11/19 13:43	67-66-3	
Chloromethane	**<0.078**	ug/m3	0.21	0.078	0.5		09/11/19 13:43	74-87-3	
Cyclohexane	**<0.18**	ug/m3	0.88	0.18	0.5		09/11/19 13:43	110-82-7	
Dibromochloromethane	**<0.36**	ug/m3	0.86	0.36	0.5		09/11/19 13:43	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/m3	0.39	0.18	0.5		09/11/19 13:43	106-93-4	
1,2-Dichlorobenzene	**<0.25**	ug/m3	0.61	0.25	0.5		09/11/19 13:43	95-50-1	
1,3-Dichlorobenzene	**<0.29**	ug/m3	0.61	0.29	0.5		09/11/19 13:43	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/m3	1.5	0.50	0.5		09/11/19 13:43	106-46-7	
Dichlorodifluoromethane	**<0.15**	ug/m3	0.50	0.15	0.5		09/11/19 13:43	75-71-8	
1,1-Dichloroethane	**<0.11**	ug/m3	0.41	0.11	0.5		09/11/19 13:43	75-34-3	
1,2-Dichloroethane	**<0.075**	ug/m3	0.21	0.075	0.5		09/11/19 13:43	107-06-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 6078 St. Francis Auto Wreckers
Pace Project No.: 10493398

Sample: RSS-2 CERT 0315 **Lab ID: 10493398004** Collected: 09/26/19 16:01 Received: 09/27/19 11:10 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15								
1,1-Dichloroethene	**<0.14**	ug/m3	0.40	0.14	0.5		09/11/19 13:43	75-35-4	
cis-1,2-Dichloroethene	**<0.11**	ug/m3	0.40	0.11	0.5		09/11/19 13:43	156-59-2	
trans-1,2-Dichloroethene	**<0.14**	ug/m3	0.40	0.14	0.5		09/11/19 13:43	156-60-5	
1,2-Dichloropropane	**<0.12**	ug/m3	0.47	0.12	0.5		09/11/19 13:43	78-87-5	
cis-1,3-Dichloropropene	**<0.15**	ug/m3	0.46	0.15	0.5		09/11/19 13:43	10061-01-5	
trans-1,3-Dichloropropene	**<0.22**	ug/m3	0.46	0.22	0.5		09/11/19 13:43	10061-02-6	
Dichlorotetrafluoroethane	**<0.22**	ug/m3	0.71	0.22	0.5		09/11/19 13:43	76-14-2	
Ethanol	**<0.41**	ug/m3	0.96	0.41	0.5		09/11/19 13:43	64-17-5	
Ethyl acetate	**<0.095**	ug/m3	0.37	0.095	0.5		09/11/19 13:43	141-78-6	
Ethylbenzene	**<0.15**	ug/m3	0.44	0.15	0.5		09/11/19 13:43	100-41-4	
4-Ethyltoluene	**<0.28**	ug/m3	1.2	0.28	0.5		09/11/19 13:43	622-96-8	
n-Heptane	**<0.19**	ug/m3	0.42	0.19	0.5		09/11/19 13:43	142-82-5	
Hexachloro-1,3-butadiene	**<0.98**	ug/m3	2.7	0.98	0.5		09/11/19 13:43	87-68-3	
n-Hexane	**<0.16**	ug/m3	0.36	0.16	0.5		09/11/19 13:43	110-54-3	
2-Hexanone	**<0.37**	ug/m3	2.1	0.37	0.5		09/11/19 13:43	591-78-6	
Methylene Chloride	**<0.60**	ug/m3	1.8	0.60	0.5		09/11/19 13:43	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.26**	ug/m3	2.1	0.26	0.5		09/11/19 13:43	108-10-1	
Methyl-tert-butyl ether	**<0.33**	ug/m3	1.8	0.33	0.5		09/11/19 13:43	1634-04-4	
Naphthalene	**<0.66**	ug/m3	1.3	0.66	0.5		09/11/19 13:43	91-20-3	
2-Propanol	**<0.35**	ug/m3	1.2	0.35	0.5		09/11/19 13:43	67-63-0	
Propylene	**<0.070**	ug/m3	0.18	0.070	0.5		09/11/19 13:43	115-07-1	
Styrene	**<0.17**	ug/m3	0.43	0.17	0.5		09/11/19 13:43	100-42-5	
1,1,2,2-Tetrachloroethane	**<0.15**	ug/m3	0.35	0.15	0.5		09/11/19 13:43	79-34-5	
Tetrachloroethene	**<0.16**	ug/m3	0.34	0.16	0.5		09/11/19 13:43	127-18-4	
Tetrahydrofuran	**<0.13**	ug/m3	0.30	0.13	0.5		09/11/19 13:43	109-99-9	
Toluene	**<0.18**	ug/m3	0.38	0.18	0.5		09/11/19 13:43	108-88-3	
1,2,4-Trichlorobenzene	**<1.9**	ug/m3	3.8	1.9	0.5		09/11/19 13:43	120-82-1	
1,1,1-Trichloroethane	**<0.15**	ug/m3	0.56	0.15	0.5		09/11/19 13:43	71-55-6	
1,1,2-Trichloroethane	**<0.12**	ug/m3	0.28	0.12	0.5		09/11/19 13:43	79-00-5	
Trichloroethene	**<0.13**	ug/m3	0.27	0.13	0.5		09/11/19 13:43	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/m3	0.57	0.18	0.5		09/11/19 13:43	75-69-4	
1,1,2-Trichlorotrifluoroethane	**<0.28**	ug/m3	0.78	0.28	0.5		09/11/19 13:43	76-13-1	
1,2,4-Trimethylbenzene	**<0.23**	ug/m3	0.50	0.23	0.5		09/11/19 13:43	95-63-6	
1,3,5-Trimethylbenzene	**<0.20**	ug/m3	0.50	0.20	0.5		09/11/19 13:43	108-67-8	
Vinyl acetate	**<0.14**	ug/m3	0.36	0.14	0.5		09/11/19 13:43	108-05-4	
Vinyl chloride	**<0.063**	ug/m3	0.13	0.063	0.5		09/11/19 13:43	75-01-4	
m&p-Xylene	**<0.35**	ug/m3	0.88	0.35	0.5		09/11/19 13:43	179601-23-1	
o-Xylene	**<0.17**	ug/m3	0.44	0.17	0.5		09/11/19 13:43	95-47-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: 6078 St. Francis Auto Wreckers
Pace Project No.: 10493398

QC Batch: 636171 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 10493398001, 10493398003

METHOD BLANK: 3428411 Matrix: Air
Associated Lab Samples: 10493398001, 10493398003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	<0.15	0.56	10/03/19 08:59	
1,1,2,2-Tetrachloroethane	ug/m3	<0.15	0.35	10/03/19 08:59	
1,1,2-Trichloroethane	ug/m3	<0.12	0.28	10/03/19 08:59	
1,1,2-Trichlorotrifluoroethane	ug/m3	<0.28	0.78	10/03/19 08:59	
1,1-Dichloroethane	ug/m3	<0.11	0.41	10/03/19 08:59	
1,1-Dichloroethene	ug/m3	<0.14	0.40	10/03/19 08:59	
1,2,4-Trichlorobenzene	ug/m3	<1.9	3.8	10/03/19 08:59	
1,2,4-Trimethylbenzene	ug/m3	<0.23	0.50	10/03/19 08:59	
1,2-Dibromoethane (EDB)	ug/m3	<0.18	0.39	10/03/19 08:59	
1,2-Dichlorobenzene	ug/m3	<0.25	0.61	10/03/19 08:59	
1,2-Dichloroethane	ug/m3	<0.075	0.21	10/03/19 08:59	
1,2-Dichloropropane	ug/m3	<0.12	0.47	10/03/19 08:59	
1,3,5-Trimethylbenzene	ug/m3	<0.20	0.50	10/03/19 08:59	
1,3-Butadiene	ug/m3	<0.064	0.22	10/03/19 08:59	
1,3-Dichlorobenzene	ug/m3	<0.29	0.61	10/03/19 08:59	
1,4-Dichlorobenzene	ug/m3	<0.50	1.5	10/03/19 08:59	
2-Butanone (MEK)	ug/m3	<0.18	1.5	10/03/19 08:59	
2-Hexanone	ug/m3	<0.37	2.1	10/03/19 08:59	
2-Propanol	ug/m3	<0.35	1.2	10/03/19 08:59	
4-Ethyltoluene	ug/m3	<0.28	1.2	10/03/19 08:59	
4-Methyl-2-pentanone (MIBK)	ug/m3	<0.26	2.1	10/03/19 08:59	
Acetone	ug/m3	<0.60	1.2	10/03/19 08:59	
Benzene	ug/m3	<0.076	0.16	10/03/19 08:59	
Benzyl chloride	ug/m3	<0.60	1.3	10/03/19 08:59	
Bromodichloromethane	ug/m3	<0.18	0.68	10/03/19 08:59	
Bromoform	ug/m3	<0.71	2.6	10/03/19 08:59	
Bromomethane	ug/m3	<0.11	0.39	10/03/19 08:59	
Carbon disulfide	ug/m3	<0.11	0.32	10/03/19 08:59	
Carbon tetrachloride	ug/m3	<0.21	0.64	10/03/19 08:59	
Chlorobenzene	ug/m3	<0.14	0.47	10/03/19 08:59	
Chloroethane	ug/m3	<0.13	0.27	10/03/19 08:59	
Chloroform	ug/m3	<0.098	0.25	10/03/19 08:59	
Chloromethane	ug/m3	<0.078	0.21	10/03/19 08:59	
cis-1,2-Dichloroethene	ug/m3	<0.11	0.40	10/03/19 08:59	
cis-1,3-Dichloropropene	ug/m3	<0.15	0.46	10/03/19 08:59	
Cyclohexane	ug/m3	<0.18	0.88	10/03/19 08:59	
Dibromochloromethane	ug/m3	<0.36	0.86	10/03/19 08:59	
Dichlorodifluoromethane	ug/m3	<0.15	0.50	10/03/19 08:59	
Dichlorotetrafluoroethane	ug/m3	<0.22	0.71	10/03/19 08:59	
Ethanol	ug/m3	<0.41	0.96	10/03/19 08:59	
Ethyl acetate	ug/m3	<0.095	0.37	10/03/19 08:59	

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

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: 6078 St. Francis Auto Wreckers
Pace Project No.: 10493398

METHOD BLANK: 3428411 Matrix: Air
Associated Lab Samples: 10493398001, 10493398003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/m3	<0.15	0.44	10/03/19 08:59	
Hexachloro-1,3-butadiene	ug/m3	<0.98	2.7	10/03/19 08:59	
m&p-Xylene	ug/m3	<0.35	0.88	10/03/19 08:59	
Methyl-tert-butyl ether	ug/m3	<0.33	1.8	10/03/19 08:59	
Methylene Chloride	ug/m3	<0.60	1.8	10/03/19 08:59	
n-Heptane	ug/m3	<0.19	0.42	10/03/19 08:59	
n-Hexane	ug/m3	<0.16	0.36	10/03/19 08:59	
Naphthalene	ug/m3	0.70J	1.3	10/03/19 08:59	
o-Xylene	ug/m3	<0.17	0.44	10/03/19 08:59	
Propylene	ug/m3	<0.070	0.18	10/03/19 08:59	
Styrene	ug/m3	<0.17	0.43	10/03/19 08:59	
Tetrachloroethene	ug/m3	<0.16	0.34	10/03/19 08:59	
Tetrahydrofuran	ug/m3	<0.13	0.30	10/03/19 08:59	
Toluene	ug/m3	<0.18	0.38	10/03/19 08:59	
trans-1,2-Dichloroethene	ug/m3	<0.14	0.40	10/03/19 08:59	
trans-1,3-Dichloropropene	ug/m3	<0.22	0.46	10/03/19 08:59	
Trichloroethene	ug/m3	<0.13	0.27	10/03/19 08:59	
Trichlorofluoromethane	ug/m3	<0.18	0.57	10/03/19 08:59	
Vinyl acetate	ug/m3	<0.14	0.36	10/03/19 08:59	
Vinyl chloride	ug/m3	<0.063	0.13	10/03/19 08:59	

LABORATORY CONTROL SAMPLE: 3428412

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	55.5	57.3	103	70-130	
1,1,2,2-Tetrachloroethane	ug/m3	69.8	75.1	108	70-132	
1,1,2-Trichloroethane	ug/m3	55.5	58.6	106	70-130	
1,1,2-Trichlorotrifluoroethane	ug/m3	77.9	77.4	99	70-130	
1,1-Dichloroethane	ug/m3	41.1	40.8	99	70-130	
1,1-Dichloroethene	ug/m3	40.3	41.8	104	70-130	
1,2,4-Trichlorobenzene	ug/m3	75.4	80.1	106	56-130	
1,2,4-Trimethylbenzene	ug/m3	50	61.7	123	70-134	
1,2-Dibromoethane (EDB)	ug/m3	78.1	83.3	107	70-130	
1,2-Dichlorobenzene	ug/m3	61.1	75.4	123	70-132	
1,2-Dichloroethane	ug/m3	41.1	42.3	103	70-130	
1,2-Dichloropropane	ug/m3	47	46.9	100	70-130	
1,3,5-Trimethylbenzene	ug/m3	50	60.1	120	70-132	
1,3-Butadiene	ug/m3	22.5	25.1	112	65-130	
1,3-Dichlorobenzene	ug/m3	61.1	76.7	126	70-137	
1,4-Dichlorobenzene	ug/m3	61.1	81.8	134	70-134	CH
2-Butanone (MEK)	ug/m3	30	31.4	105	70-130	
2-Hexanone	ug/m3	41.6	47.6	114	70-135	
2-Propanol	ug/m3	125	133	106	68-130	
4-Ethyltoluene	ug/m3	50	63.5	127	70-138	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 6078 St. Francis Auto Wreckers
Pace Project No.: 10493398

LABORATORY CONTROL SAMPLE: 3428412

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4-Methyl-2-pentanone (MIBK)	ug/m3	41.6	44.0	106	70-131	
Acetone	ug/m3	121	121	100	67-130	
Benzene	ug/m3	32.5	36.0	111	70-130	
Benzyl chloride	ug/m3	52.6	54.5	104	70-130	
Bromodichloromethane	ug/m3	68.1	69.4	102	70-130	
Bromoform	ug/m3	105	115	109	70-132	
Bromomethane	ug/m3	39.5	40.2	102	69-130	
Carbon disulfide	ug/m3	31.6	31.5	99	56-137	
Carbon tetrachloride	ug/m3	64	68.0	106	66-131	
Chlorobenzene	ug/m3	46.8	49.7	106	70-130	
Chloroethane	ug/m3	26.8	30.2	113	70-130	
Chloroform	ug/m3	49.6	49.7	100	70-130	
Chloromethane	ug/m3	21	20.4	97	66-130	
cis-1,2-Dichloroethene	ug/m3	40.3	42.4	105	70-130	
cis-1,3-Dichloropropene	ug/m3	46.1	49.8	108	70-133	
Cyclohexane	ug/m3	35	36.6	104	68-132	
Dibromochloromethane	ug/m3	86.6	92.6	107	70-130	
Dichlorodifluoromethane	ug/m3	50.3	50.4	100	70-130	
Dichlorotetrafluoroethane	ug/m3	71	70.8	100	70-130	
Ethanol	ug/m3	95.8	104	108	68-133	
Ethyl acetate	ug/m3	36.6	36.6	100	69-130	
Ethylbenzene	ug/m3	44.1	50.2	114	67-131	
Hexachloro-1,3-butadiene	ug/m3	108	121	112	66-137	
m&p-Xylene	ug/m3	88.3	102	115	70-132	
Methyl-tert-butyl ether	ug/m3	36.6	38.1	104	70-130	
Methylene Chloride	ug/m3	177	146	83	65-130	
n-Heptane	ug/m3	41.7	40.1	96	65-130	
n-Hexane	ug/m3	35.8	34.6	97	66-130	
Naphthalene	ug/m3	53.3	55.4	104	56-130	
o-Xylene	ug/m3	44.1	49.4	112	70-130	
Propylene	ug/m3	17.5	17.2	99	67-130	
Styrene	ug/m3	43.3	54.0	125	69-136	
Tetrachloroethene	ug/m3	68.9	73.9	107	70-130	
Tetrahydrofuran	ug/m3	30	31.3	105	68-131	
Toluene	ug/m3	38.3	42.0	110	70-130	
trans-1,2-Dichloroethene	ug/m3	40.3	41.6	103	70-130	
trans-1,3-Dichloropropene	ug/m3	46.1	52.2	113	70-134	
Trichloroethene	ug/m3	54.6	58.2	107	70-130	
Trichlorofluoromethane	ug/m3	57.1	58.9	103	65-130	
Vinyl acetate	ug/m3	35.8	37.6	105	61-133	
Vinyl chloride	ug/m3	26	27.5	106	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 6078 St. Francis Auto Wreckers
Pace Project No.: 10493398

SAMPLE DUPLICATE: 3428546

Parameter	Units	10493797001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	5.6J		25	
1,1,2,2-Tetrachloroethane	ug/m3	ND	<2.9		25	
1,1,2-Trichloroethane	ug/m3	ND	<2.3		25	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	<5.3		25	
1,1-Dichloroethane	ug/m3	ND	<2.1		25	
1,1-Dichloroethene	ug/m3	ND	<2.6		25	
1,2,4-Trichlorobenzene	ug/m3	ND	<34.8		25	
1,2,4-Trimethylbenzene	ug/m3	ND	<4.2		25	
1,2-Dibromoethane (EDB)	ug/m3	ND	<3.4		25	
1,2-Dichlorobenzene	ug/m3	ND	<4.7		25	
1,2-Dichloroethane	ug/m3	ND	<1.4		25	
1,2-Dichloropropane	ug/m3	ND	<2.2		25	
1,3,5-Trimethylbenzene	ug/m3	ND	<3.7		25	
1,3-Butadiene	ug/m3	ND	<1.2		25	
1,3-Dichlorobenzene	ug/m3	ND	<5.4		25	
1,4-Dichlorobenzene	ug/m3	ND	<9.4		25	
2-Butanone (MEK)	ug/m3	ND	7.8J		25	
2-Hexanone	ug/m3	ND	<7.0		25	
2-Propanol	ug/m3	ND	<6.5		25	
4-Ethyltoluene	ug/m3	ND	<5.3		25	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	<4.8		25	
Acetone	ug/m3	38.7	38.5	0	25	
Benzene	ug/m3	ND	<1.4		25	
Benzyl chloride	ug/m3	ND	<11.2		25	
Bromodichloromethane	ug/m3	ND	<3.4		25	
Bromoform	ug/m3	ND	<13.3		25	
Bromomethane	ug/m3	ND	<2.1		25	
Carbon disulfide	ug/m3	ND	<2.0		25	
Carbon tetrachloride	ug/m3	ND	<4.0		25	
Chlorobenzene	ug/m3	ND	<2.6		25	
Chloroethane	ug/m3	ND	<2.4		25	
Chloroform	ug/m3	ND	<1.8		25	
Chloromethane	ug/m3	ND	<1.5		25	
cis-1,2-Dichloroethene	ug/m3	ND	<2.0		25	
cis-1,3-Dichloropropene	ug/m3	ND	<2.8		25	
Cyclohexane	ug/m3	ND	<3.3		25	
Dibromochloromethane	ug/m3	ND	<6.7		25	
Dichlorodifluoromethane	ug/m3	16.8	16.2	4	25	
Dichlorotetrafluoroethane	ug/m3	ND	<4.1		25	
Ethanol	ug/m3	28.7	28.6	0	25	
Ethyl acetate	ug/m3	ND	<1.8		25	
Ethylbenzene	ug/m3	ND	<2.9		25	
Hexachloro-1,3-butadiene	ug/m3	ND	<18.4		25	
m&p-Xylene	ug/m3	ND	<6.5		25	
Methyl-tert-butyl ether	ug/m3	ND	<6.2		25	
Methylene Chloride	ug/m3	ND	<11.3		25	
n-Heptane	ug/m3	ND	<3.6		25	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 6078 St. Francis Auto Wreckers
Pace Project No.: 10493398

SAMPLE DUPLICATE: 3428546

Parameter	Units	10493797001 Result	Dup Result	RPD	Max RPD	Qualifiers
n-Hexane	ug/m3	ND	<2.9		25	
Naphthalene	ug/m3	ND	<12.2		25	
o-Xylene	ug/m3	ND	<3.2		25	
Propylene	ug/m3	3.8	3.6	4	25	
Styrene	ug/m3	ND	<3.2		25	
Tetrachloroethene	ug/m3	ND	<2.9		25	
Tetrahydrofuran	ug/m3	49.6	48.1	3	25	
Toluene	ug/m3	ND	<3.3		25	
trans-1,2-Dichloroethene	ug/m3	346	338	2	25	
trans-1,3-Dichloropropene	ug/m3	ND	<4.1		25	
Trichloroethene	ug/m3	219	214	2	25	
Trichlorofluoromethane	ug/m3	ND	<3.4		25	
Vinyl acetate	ug/m3	ND	<2.5		25	
Vinyl chloride	ug/m3	ND	<1.2		25	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: 6078 St. Francis Auto Wreckers
Pace Project No.: 10493398

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-M	Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

CH	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 6078 St. Francis Auto Wreckers
Pace Project No.: 10493398

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10493398001	**RSS-1**	TO-15	636171		
10493398003	**RSS-2**	TO-15	636171		
10493398002	**RSS-1 CERT 3392**	TO-15	636143		
10493398004	**RSS-2 CERT 0315**	TO-15	636143		

Pace Analytical®
www.pacelabs.com

AIR: CHAIN-OF-CUSTODY

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant

WO# : 10493398

10493398

45468

Page: 1 of 1

Section A Required Client Information:

Company: Moraine Environmental
Address: 7606 Tower Dr
Fredonia, WI 53021
Email To: moraine@execpc.com
Phone: 262-692-3345 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Tom Sweat
Copy To: Moraine.joe@gmail.com
Purchase Order No.:
Project Name: St. Francis Auto Workers
Project Number: 6078

Section C Invoice Information:

Attention:
Company Name: Moraine Environmental
Address: Moraine@execpc.com
Pace Quote Reference:
Pace Project Manager/Sales Rep.
Pace Profile #: 32526

Program
☐ UST ☐ Superfund ☐ Emissions ☐ Clean Air Act
☐ Voluntary Clean Up ☐ Dry Clean ☐ RCRA ☐ Other

Location of Sampling by State: WI

Reporting Units: ug/m³: X mg/m³: PPBV: PPMV: Other:

Report Level II. III. IV. Other

'Section D Required Client Information

AIR SAMPLE ID
Sample IDs MUST BE UNIQUE

Valid Media Codes

MEDIA	CODE
Tedlar Bag	TB
1 Liter Summa Can	1LC
6 Liter Summa Can	6LC
Low Volume Puff	LVP
High Volume Puff	HVP
Other	PM10

ITEM #	'Section D Required Client Information AIR SAMPLE ID	MEDIA CODE	PID Reading (Client only)	COLLECTED DATE	COLLECTED TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	Canister Pressure (Initial Field - in Hg)	Canister Pressure (Final Field - in Hg)	Summa Can Number	Flow Control Number	Method: PM10	3C - Fixed Gas (%)	TO-3 BTEX	TO-3M (Methane)	TO-14	TO-15 Full List VOCs	TO-15 Short List BTEX	TO-15 Short List Chlorinated	TO-15 Short List (other)	Pace Lab ID
1	RSS-1	6LC		9/26/19	1517	9/26/19	1547	30	10	3392	0908					X					001, 002
2	RSS-2	6LC		9/26/19	1531	9/26/19	1601	26	2	0315	0819					X					003, 004
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

Comments :

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	9/26/19		RAGE	9/27/19	1110

SAMPLE CONDITIONS

—	Y/N	Y/N	Y/N	
	Y/N	Y/N	Y/N	
	Y/N	Y/N	Y/N	
	Y/N	Y/N	Y/N	
	Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Joe Pospichal

SIGNATURE of SAMPLER: DATE Signed (MM / DD / YY): 09/26/19

ORIGINAL

Pace Analytical	Document Name: Air Sample Condition Upon Receipt	Document Revised: 31Jan2019 Page 1 of 1
	Document No.: F-MN-A-106-rev.18	Issuing Authority: Pace Minnesota Quality Office

Air Sample Condition Upon Receipt

Client Name: MORAINE ENV.

Project #: **WO#: 10493398**

PM: KNH Due Date: 10/04/19

CLIENT: Moraine

Courier: [X] Fed Ex [ ] UPS [ ] USPS [ ] Client [ ] Pace [ ] SpeeDee [ ] Commercial See Exception [ ]

Tracking Number: 1083 0280 8935

Custody Seal on Cooler/Box Present? [ ] Yes [X] No Seals Intact? [ ] Yes [X] No

Packing Material: [ ] Bubble Wrap [ ] Bubble Bags [X] Foam [ ] None [ ] Tin Can [ ] Other: _____ Temp Blank rec: [ ] Yes [X] No

Temp. (TO17 and TO13 samples only) (°C): X Corrected Temp (°C): X Thermometer Used: [ ] G87A9170600254 [ ] G87A9155100842

Temp should be above freezing to 6°C Correction Factor: X Date & Initials of Person Examining Contents: 9/28/19 CMJ

Type of ice Received [ ] Blue [ ] Wet [X] None

		Comments:
Chain of Custody Present?	[X] Yes [ ] No	1.
Chain of Custody Filled Out?	[X] Yes [ ] No	2.
Chain of Custody Relinquished?	[X] Yes [ ] No	3.
Sampler Name and/or Signature on COC?	[X] Yes [ ] No [ ] N/A	4.
Samples Arrived within Hold Time?	[X] Yes [ ] No	5.
Short Hold Time Analysis (<72 hr)?	[ ] Yes [X] No	6.
Rush Turn Around Time Requested?	[ ] Yes [X] No	7.
Sufficient Volume?	[X] Yes [ ] No	8.
Correct Containers Used?	[X] Yes [ ] No	9.
-Pace Containers Used?	[X] Yes [ ] No	
Containers Intact?	[X] Yes [ ] No	10.
Media: (Air Can) Airbag Filter TDT Passive		11. Individually Certified Cans (V) N (list which samples)
Is sufficient information available to reconcile samples to the COC?	[X] Yes [ ] No	12.
Do cans need to be pressurized (3C and ASTM 1946 DO NOT PRESSURIZE)?	[X] Yes [ ] No	13.

Samples Received: Pressure Gauge # [ ] 10AIR34 [X] 10AIR35

Canisters					Canisters				
Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
RSS-1	3372	0908	-9.5	-5					
RSS-2	0315	0819	0	-5					

CLIENT NOTIFICATION/RESOLUTION Field Data Required? [ ] Yes [ ] No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: Kirsten Hoffberg Date: 9/30/2019

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)