



**Rose & Westra**  
A Division of GZA

GEOTECHNICAL  
ENVIRONMENTAL  
ECOLOGICAL  
WATER  
CONSTRUCTION  
MANAGEMENT

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## MEMORANDUM

To: Abby Hendershott, EGLE

From: Leslie Nelson, Rose & Westra, a Division of GZA GeoEnvironmental, Inc.

Date: September 30, 2019

File No.: 16.0062335.02 Task 002

Re: Wolverine World Wide, Inc. (Wolverine) – Former Tannery  
Monthly Progress Report

This Monthly Progress Report (MPR) is being provided at the request of EGLE to support the June 18, 2018 Source Investigation Task Summary (SITS) in response EGLE's request for regular progress updates.

This MPR summarizes the progress for the period August 24, 2019 through September 23, 2019. This includes actions performed, problems encountered, analytical data received during the reporting period, and anticipated developments during the next reporting period.

## ACTIONS PERFORMED

During this period, August 24, 2019 through September 23, 2019, GZA has done the following:

- 1) Conducted surveying activities of new monitoring wells.
- 2) Continued work on the pump and treat system design.
- 3) Completed boring logs for TA-MW-317 (attached).
- 4) Conducted activities in response to EPA's April 29, 2019 letter.

## ANALYTICAL DATA RECIEVED

The data for the 3<sup>rd</sup> quarter groundwater sampling was received and is included in Table 1, attached.

## ANTICIPATED ACTIONS AND SCHEDULE FOR NEXT REPORTING PERIOD

During the next reporting period September 24, 2019 through October 23, 2019, R&W/GZA anticipates completing and/or continuing to conduct the following tasks.

- 1) Conduct drilling activities at TA-PMW-314 pending drill rig availability.

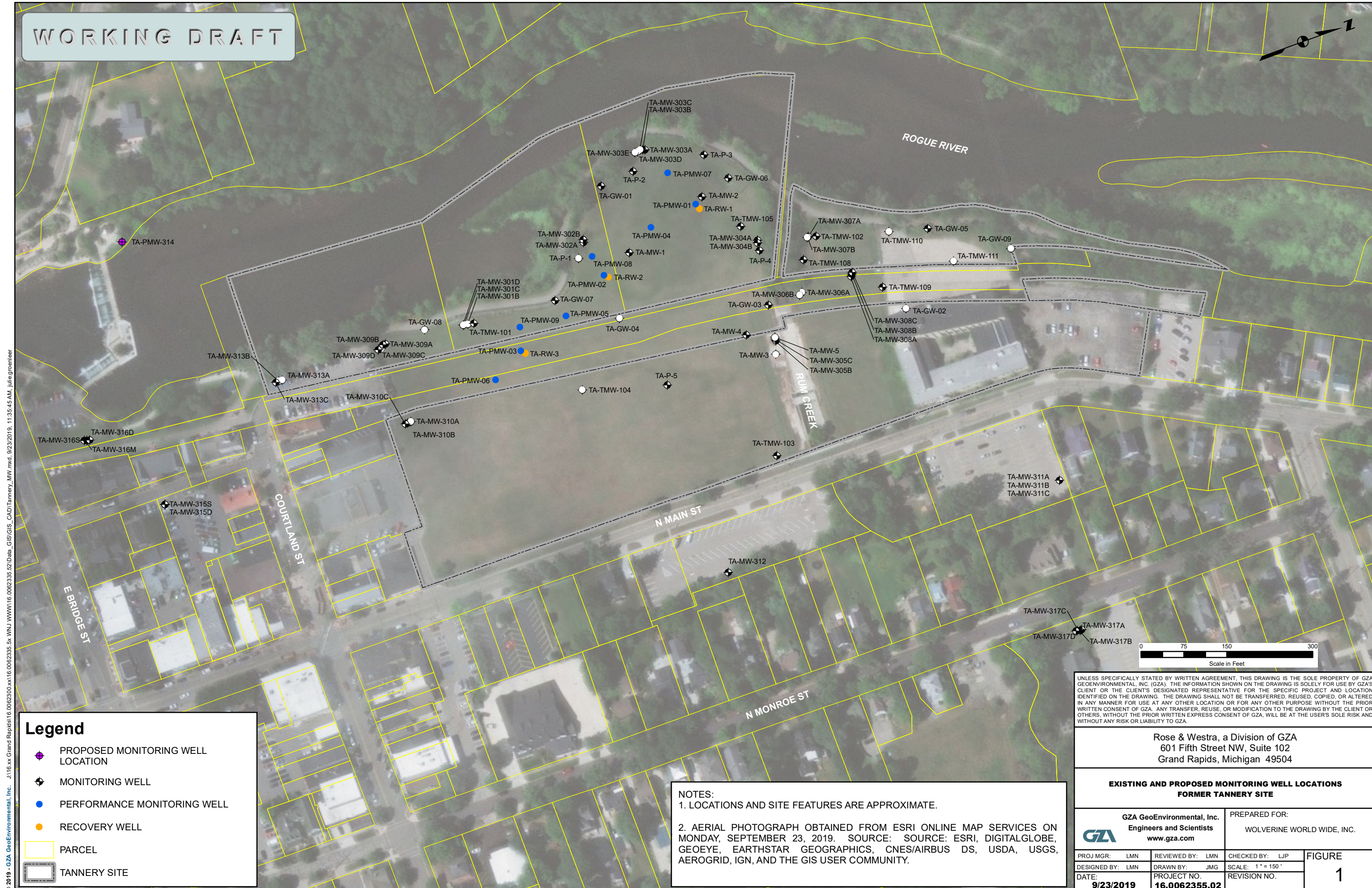


- 2) Continue to respond to the EPA's April 29, 2019, correspondence regarding CERCLA TCRA actions at and adjacent to the former Wolverine Tannery site.

J:\62000\623xx\62335.02 - WWW Tannery 2017\_2018 Work\002 - Implementation of 2018 Work Plan\MDEQ Monthly Progress Reports\September 30, 2019 Report\Tannery-EGLE-MonthlyUpdate-093019.docx



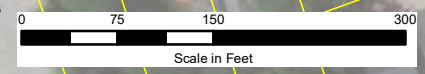
WORKING DRAFT



**Legend**

- PROPOSED MONITORING WELL LOCATION
- MONITORING WELL
- PERFORMANCE MONITORING WELL
- RECOVERY WELL
- PARCEL
- TANNERY SITE

NOTES:  
1. LOCATIONS AND SITE FEATURES ARE APPROXIMATE.  
2. AERIAL PHOTOGRAPH OBTAINED FROM ESRI ONLINE MAP SERVICES ON MONDAY, SEPTEMBER 23, 2019. SOURCE: SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY.



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601 Fifth Street NW, Suite 102  
Grand Rapids, Michigan 49504

**EXISTING AND PROPOSED MONITORING WELL LOCATIONS  
FORMER TANNERY SITE**

GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: WOLVERINE WORLD WIDE, INC.	
PROJ MGR: LMN	REVIEWED BY: LMN	CHECKED BY: LJP	FIGURE 1
DESIGNED BY: LMN	DRAWN BY: JMG	SCALE: 1" = 150'	
DATE: 9/23/2019	PROJECT NO. 16.0062355.02	REVISION NO.	





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Wolverine World Wide, Inc.

Former Tannery

Rockford, Michigan

Boring No.: TA-MW-317A

Page: 1 of 1

File No.: 16.0062335.02

Check: K. McDonald

Contractor: Stearns Drilling Company

Foreman: Jerry H.

Logged by: John Morehouse

Date Start/Finish: 8-14-19 / 8-14-19

Boring Location: W of Community Center Building

GS Elev.: Datum

MI State Plane S Zone NAD 83

Auger/  
Casing  
Type: Direct Push  
O.D. / I.D.: NA  
Hammer Wt.: NA  
Hammer Fall: NA  
TOC Elev.: NA

Sampler  
GeoProbe  
NA  
NA  
NA

#### GROUNDWATER READINGS

Date	Time	Depth	Casing	Stab
NM	NM	NM	NM	NM

Surveyed By: NA Survey Date:

Depth	Sample Information					Sample Description & Classification	Stratum Desc.	Remarks	Equipment Installed	
	No.	Pen./ Rec. (in.)	Depth (Ft.)	Blows (/6")	Test Data					
1						See TA-MW-317D boring log for detailed soil descriptions.				1
2										
3										
4										
5										
6										
7										
8										
9										
10										
11						Bottom of Borehole at 10.4 Feet				1
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										

#### REMARKS

1. Monitoring well was installed in borehole upon completion. Well screen set from approximately 4.8 to 9.6 feet below ground surface.

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Boring No.: TA-MW-317A

BORING WELL 6233502 WWW.FORMER.TANNERY.ROCKFORD.10.16.18.GPJ GZA CORP.GDT 9/27/19



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Former Tannery

Rockford, Michigan

Boring No.: TA-MW-317B

Page: 1 of 1

File No.: 16.0062335.02

Check: K. McDonald

Contractor: Stearns Drilling Company

Foreman: Jerry H.

Logged by: John Morehouse

Date Start/Finish: 8-7-19 / 8-7-19

Boring Location: W of Community Center Building

GS Elev.: Datum: M State Plane S Zone NAD 83

Auger/  
Casing

Sampler

Type: Direct Push

GeoProbe

O.D. / I.D.: NA

NA

Hammer Wt.: NA

NA

Hammer Fall: NA

NA

TOC Elev.: NA

NA

**GROUNDWATER READINGS**

Date	Time	Depth	Casing	Stab
NM	NM	NM	NM	NM

Surveyed By: NA Survey Date:

Depth	Sample Information					Sample Description & Classification	Stratum Desc.	Remarks	Equipment Installed	
	No.	Pen./ Rec. (in.)	Depth (Ft.)	Blows (/6")	Test Data					PROTECTIVE CASING
1						See TA-MW-317D boring log for detailed soil descriptions.				
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
						Bottom of Borehole at 35.0 Feet		1		

Silica Sand Filter Pack

Top of Well Screen

2-Inch Dia. 5-Foot PVC Screen (0.010" Slot)

Bottom of Well Screen

**REMARKS**

1. Monitoring well was installed in borehole upon completion. Well screen set from approximately 29.1 to 33.9 feet below ground surface.

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Boring No.: TA-MW-317B

BORING WELL 6233502 WWW.FORMER.TANNERY.ROCKFORD.10.16.18.GPJ GZA CORP.GDT 9/27/19



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Former Tannery

Rockford, Michigan

Boring No.: TA-MW-317C

Page: 1 of 2

File No.: 16.0062335.02

Check: K. McDonald

Contractor: Stearns Drilling Company

Foreman: Jerry H.

Logged by: John Morehouse

Date Start/Finish: 8-14-19 / 8-14-19

Boring Location: W of Community Center Building

GS Elev.: Datum

MI State Plane S Zone NAD 83

Auger/  
Casing

Sampler

Type: Direct Push

GeoProbe

O.D. / I.D.: NA

NA

Hammer Wt.: NA

NA

Hammer Fall: NA

NA

TOC Elev.: NA

NA

**GROUNDWATER READINGS**

Date	Time	Depth	Casing	Stab
NM	NM	NM	NM	NM

Surveyed By: NA Survey Date:

Depth	Sample Information					Sample Description & Classification	Stratum Desc.	Remarks	Equipment Installed	
	No.	Pen./ Rec. (in.)	Depth (Ft.)	Blows (/6")	Test Data					PROTECTIVE CASING
1						See TA-MW-317D boring log for detailed soil descriptions.				
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
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34										
35										
36										
37										
38										
39										
40										
41										
42										
43										
44										

Silica Sand  
Filter Pack

**R  
E  
M  
A  
R  
K  
S**

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Boring No.: TA-MW-317C

BORING WELL 6233502 WWW.FORMER-TANNERY-ROCKFORD 10\_16\_18.GPJ GZA CORP.GDT 9/27/19



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Former Tannery

Rockford, Michigan

Boring No.: TA-MW-317C

Page: 2 of 2

File No.: 16.0062335.02

Check: K. McDonald

Depth	Sample Information					Sample Description & Classification	Stratum Desc.	Remarks	Equipment Installed
	No.	Pen./ Rec. (in.)	Depth (Ft.)	Blows (/6")	Test Data				
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									
56									
57									
58									
59									
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74									
75									
76									
77									
78									
79									
80									
81									
82									
83									
84									
85									
86						Bottom of Borehole at 85.4 Feet		1	
87									
88									
89									
90									
91									
92									
93									
94									
95									
96									
97									

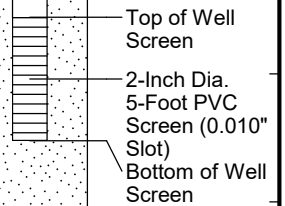
REMARKS

1. Monitoring well was installed in borehole upon completion. Well screen set from approximately 77.8 to 82.6 feet below ground surface.

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Boring No.: TA-MW-317C

BORING WELL 6233502 WWW.FORMER.TANNERY.ROCKFORD 10\_16\_18.GPJ GZA CORP.GDT 9/27/19





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Wolverine World Wide, Inc.

Former Tannery

Rockford, Michigan

Boring No.: TA-MW-317D

Page: 1 of 7

File No.: 16.0062335.02

Check: K. McDonald

Contractor: Stearns Drilling Company

Foreman: Jerry H.

Logged by: John Morehouse

Date Start/Finish: 8-5-19 / 8-12-19

Boring Location: W of Community Center Building

GS Elev.: Datum M State Plane S Zone NAD 83

Auger/  
Casing  
Type: Direct Push  
O.D. / I.D.: NA  
Hammer Wt.: NA  
Hammer Fall: NA  
TOC Elev.: NA

Sampler  
GeoProbe  
NA  
NA  
NA

**GROUNDWATER READINGS**

Date	Time	Depth	Casing	Stab
NM	NM	NM	NM	NM

Surveyed By: NA Survey Date:

Depth	Sample Information					Sample Description & Classification	Stratum Desc.	Remarks	Equipment Installed	
	No.	Pen./ Rec. (in.)	Depth (Ft.)	Blows (/6")	Test Data					PROTECTIVE CASING
1	1	24/16	0-2	2-4 3-3		Very dark brown, SILT, some fine Sand, moderately cohesive, non to slightly plastic, moist. Changing at 0.3 feet to: Very dark grayish-brown, fine to coarse SAND, little Gravel, trace Silt, moist. Changing at 1.3 feet to: NO RECOVERY.	0.4' SILT SAND			
2	2	24/5	2-4	2-2 2-1		Very dark, grayish-brown, fine to coarse SAND, little Gravel, trace Silt, moist. Changing at 2.4 feet to: NO RECOVERY.	1.3' NO RECOVERY 2' SAND 2.4' NO RECOVERY			
3										
4	3	24/2	4-6	2-3 1-1		Very dark grayish-brown grading to dark yellowish-brown, fine to coarse SAND, little Gravel, trace Silt, moist. Changing at 4.2 feet to: NO RECOVERY.	4' SAND 4.2' RECOVERY			
5										
6	4	24/4	6-8	4-8 17-26		Dark yellowish-brown, fine to coarse SAND, little Gravel, trace Silt, moist. Changing at 6.3 feet to: NO RECOVERY.	6' SAND 6.3' NO RECOVERY			
7										
8	5	24/1	8-10	8-22 15-7		Dark yellowish-brown, fine to coarse SAND, little Gravel, trace Silt, moist. Changing at 8.1 feet to: NO RECOVERY.	8' SAND 8.1' NO RECOVERY			
9										
10	6	24/18	10-12	2-5 7-9		Very dark grayish-brown, Silty CLAY, plastic, cohesive, moist. Changing at 11.5 feet to: NO RECOVERY.	10' Silty CLAY 11.5' NO RECOVERY			
11										
12	7	24/0	12-14	4-6 8-15		NO RECOVERY.				
13										

REMARKS

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Boring No.: TA-MW-317D

BORING WELL 6233502 WWW.FORMER-TANNERY-ROCKFORD 10\_16\_18.GPJ GZA CORP.GDT 9/27/19





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Wolverine World Wide, Inc.

Former Tannery

Rockford, Michigan

Boring No.: TA-MW-317D

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File No.: 16.0062335.02

Check: K. McDonald

Depth	Sample Information					Sample Description & Classification	Stratum Desc.	Remarks	Equipment Installed	
	No.	Pen./ Rec. (in.)	Depth (Ft.)	Blows (/6")	Test Data					
15	8	24/16	14-16	3-7 11-18		Dark and light gray grading to dark yellowish-brown with grayish-brown, Silty CLAY, plastic, cohesive, moist. Changing at 15.3 feet to: NO RECOVERY.	Silty CLAY			
16	9	24/24	16-18	5-13 19-29		Mottled dark yellowish-brown to grayish-brown, Silty CLAY, plastic, cohesive, moist.	15.3' NO RECOVERY 16' Silty CLAY			
18	10	24/17	18-20	1-10 21-21		Mottled dark yellowish-brown to dark grayish-brown, Silty CLAY, plastic, cohesive, moist. Changing at 19.4 feet to: NO RECOVERY.	19.4' NO RECOVERY 20' Silty CLAY			
20	11	24/24	20-22	8-16 26-36		Mottled dark yellowish-brown to dark grayish-brown, Silty CLAY, plastic, cohesive, moist.				
22	12	24/24	22-24	5-12 22-29		Mottled dark yellowish-brown to dark grayish-brown, Silty CLAY, plastic, cohesive, moist.				
24	13	24/24	24-26	7-19 26-38		Dark yellowish-brown, Silty CLAY, plastic, cohesive, moist.				
28	14	24/13	28-30	5-21-50/4"		Dark yellowish-brown, Silty CLAY, plastic, cohesive, moist. Changing at 28.6 feet to: Brown, fine to medium SAND, trace Silt, moist to wet. Changing at 29.1 feet to: NO RECOVERY.		1		
30	15	24/13	30-32	2-2		Brown, fine to medium SAND, trace Silt,	30' SAND			
<b>REMARKS</b> 1. Groundwater was encountered at approximately 28.6 feet below ground surface.										
Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.									Boring No.: TA-MW-317D	

BORING WELL 6233502 WWW.FORMER.TANNERY.ROCKFORD 10 16 18.GPJ GZA CORP.GDT 9/27/19



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Rockford, Michigan

Boring No.: TA-MW-317D

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File No.: 16.0062335.02

Check: K. McDonald

Sample Information						ROCKFORD, MICHIGAN		Check: K. McDonald		
Depth	No.	Pen./ Rec. (in.)	Depth (Ft.)	Blows (/6")	Test Data	Sample Description & Classification	Stratum Desc.	Remarks	Equipment Installed	
31	16	24/18	32-34	3-13 34-50/5"		wet. Changing at 31.1 feet to: NO RECOVERY.	SAND			Bentonite Slurry Grout
						31.1' NO RECOVERY				
32						32' SAND				
33		33.5' NO RECOVERY								
34	17	24/24	34-36	11-18 39-50/4"		Brown, fine to medium SAND, trace Silt, wet. Changing at 34.6 feet to: Brown, fine to coarse SAND, trace Silt, wet. Changing at 35.2 feet to: Brown, fine to coarse SAND, trace Silt, wet. Changing at 35.5 feet to: Dark grayish-brown, SILT, some fine Sand, slightly cohesive, moist to wet.	SAND			
35						35.5' SILT				
36						36' SAND				
37	18	24/12	36-38	13-29 27-26		Brown, fine to coarse SAND, little Gravel, trace Silt, wet. Changing at 36.8 feet to: Brown, Silty CLAY, trace Gravel, trace fine Sand, plastic, cohesive, moist. Changing at 37.0 feet to: NO RECOVERY.	36.8' Silty CLAY			
38						37' NO RECOVERY				
39						38' Silty CLAY				
40	19	24/24	38-40	6-15 29-34		Dark grayish-brown, Silty CLAY, trace Gravel, plastic, cohesive, moist.				
41										
42										
43	20	24/24	40-42	11-20 24-33		Dark grayish-brown, Silty CLAY, trace Gravel, trace fine Sand, plastic, cohesive, moist.				
44										
45										
46	21	24/22	42-44	15-26 23-50/5.5"		Dark grayish-brown, Silty CLAY, trace Gravel, trace fine Sand, plastic, cohesive, moist; at 42.3 feet, very thin lense of fine to medium SAND, moist to wet. Changing at 43.1 feet to: Brown, fine to medium SAND, trace Silt, moist to wet. Changing at 43.2 feet to: Dark grayish-brown, Sandy CLAY, little Silt, trace Gravel, slightly plastic, cohesive, moist. Changing at 43.6 feet to: Brown, fine to medium SAND, trace Silt, moist to wet. Changing at 43.8 feet to: NO RECOVERY.	43.1' SAND			
47						43.2' Sandy CLAY				
48						43.6' SAND				
49	22	24/20	44-46	7-22 32-16		Dark grayish-brown, Sandy CLAY, little Silt, trace Gravel, slightly plastic, cohesive, moist. Changing at 44.7 feet to: Dark grayish-brown, Silty CLAY, trace Gravel,	43.8' NO RECOVERY			
50						44' Sandy CLAY				
51						44.7' Silty CLAY				
52	23	24/24	46-48	10-19 29-31		Dark grayish-brown, Sandy CLAY, little Silt, trace Gravel, slightly plastic, cohesive, moist. Changing at 44.7 feet to: Dark grayish-brown, Silty CLAY, trace Gravel,	45.7' NO RECOVERY			
53						46' Silty CLAY				
54										
REMARKS										
Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.									Boring No.: TA-MW-317D	

BORING WELL 6233502 WWW.FORMER TANNERY ROCKFORD 10 16 18.GPJ GZA CORP.GDT 9/27/19

Bentonite  
Slurry Grout



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Wolverine World Wide, Inc.

Former Tannery

Rockford, Michigan

Boring No.: TA-MW-317D

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File No.: 16.0062335.02

Check: K. McDonald

Rockford, Michigan											Check: K. McDonald		
Depth	Sample Information					Sample Description & Classification	Stratum Desc.	Remarks	Equipment Installed				
	No.	Pen./ Rec. (in.)	Depth (Ft.)	Blows (/6")	Test Data								
47	24	24/0	48-50	23-44-50/5.5"		trace fine Sand, plastic, cohesive, moist. Changing at 45.4 feet to: Dark grayish-brown, Silty CLAY, plastic, cohesive, moist. Changing at 45.7 feet to: NO RECOVERY.	Silty CLAY						
48						Dark grayish-brown, Silty CLAY, plastic, cohesive, moist. NO RECOVERY.	48' NO RECOVERY						
49													
50	25	24/14	50-52	9-47-50/5"	Dark grayish-brown, Silty CLAY, plastic, cohesive, moist. Changing at 51.2 feet to: NO RECOVERY.	50' Silty CLAY							
51						51.2' NO RECOVERY							
52						52' Silty CLAY							
53	26	24/24	52-54	1-12 17-27	Dark grayish-brown, Silty CLAY, plastic, cohesive, moist.								
54													
55													
56	27	24/24	54-56	12-19 18-34	Dark grayish-brown, Silty CLAY, plastic, cohesive, moist.								
57													
58													
59	28	24/20	56-58	5-22 37-50	Grayish-brown, SILT, little Clay, slightly plastic, cohesive, moist. Changing at 57.7 feet to: NO RECOVERY.	56' SILT							
60													
61													
62	29	24/24	58-60	11-20 29-26	Yellowish-brown to dark yellowish-brown, SILT, little fine Sand, trace Clay, non-plastic, moderately cohesive, moist to wet.	57.7' NO RECOVERY 58' SILT							
63													
64													
65	30	24/16	60-62	3-8 18-27	Yellowish-brown to dark yellowish-brown, SILT, little fine Sand, trace Clay, non-plastic, moderately cohesive, moist to wet. Changing at 61.0 feet to: Yellowish-brown, fine to medium SAND, little Silt, trace Gravel, trace Clay, non-plastic, slightly cohesive, moist to wet.	61' SAND							
66						61.3' NO RECOVERY							
67						62' SILT							
68	31	24/18	62-64	7-10 23-30	Yellowish-brown to dark yellowish-brown, SILT, little fine Sand, trace Clay, non-plastic, moderately cohesive, moist to								
69													
70													
REMARKS													
Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.											Boring No.: TA-MW-317D		

BORING WELL 6233502 WWW.FORMER TANNERY ROCKFORD 10\_16\_18.GPJ GZA CORP.GDT 9/27/19



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Rockford, Michigan

Boring No.: TA-MW-317D

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File No.: 16.0062335.02

Check: K. McDonald

Depth	Sample Information					Sample Description & Classification	Stratum Desc.	Remarks	Equipment Installed	
	No.	Pen./ Rec. (in.)	Depth (Ft.)	Blows (/6")	Test Data					
64	32	24/18	64-66	19-23 32-38		wet. Changing at 63.7 feet to: NO RECOVERY.  Yellowish-brown to dark yellowish-brown, SILT, little fine Sand, trace Clay, non-plastic, moderately cohesive, moist to wet; occasional very thin lenses of Silty Clay.	SILT 63.7' 64' NO RECOVERY SILT			
65										
66	33	24/20	66-68	18-34 34-50		Grayish-brown to brown, SILT, non-plastic, cohesive, wet. Changing at 67.7 feet to: NO RECOVERY.				
67							67.7'			
68	34	24/19	68-70	20-47-50/5"		Dark grayish-brown, SILT & CLAY, trace Gravel, moderately plastic, cohesive, moist. Changing at 70.0 feet to: NO RECOVERY.	68' NO RECOVERY SILT & CLAY			
69							69.7'			
70	35	24/22	70-72	11-21 21-28		Grayish-brown, SILT, some fine Sand, wet. Changing at 70.9 feet to: Grayish-brown, SILT, non-plastic, cohesive, wet. Changing at 71.2 feet to: Grayish-brown, SILT, some fine Sand, wet. Changing at 71.5 feet to: Grayish-brown to dark grayish-brown, fine SAND, some Silt, little Gravel, moist to wet. Changing at 71.7 feet to: Grayish-brown, SILT, trace fine Sand, moderately cohesive, non-plastic, wet. Changing at 71.8 feet to: NO RECOVERY.	70' NO RECOVERY SILT			
71							71.5'			
72	36	24/13	72-74	4-8 11-13		Dark grayish-brown to very dark grayish-brown, Sandy CLAY, little Gravel, slightly plastic, cohesive, moist. Changing at 72.8 feet to: Dark grayish-brown, fine to medium SAND, trace Silt, wet, with occasional very thin lenses of Silty Clay. Changing at 73.1 feet to: NO RECOVERY.	71.7' SAND 71.8' SILT 72' NO RECOVERY SANDY CLAY 72.8'			
73							73.1' SAND			
74	37	24/19	74-76	6-20 22-27		Dark grayish-brown to grayish-brown, SAND, little Clay, little Silt, trace Gravel, non-slightly plastic, slightly cohesive, moist. Changing at 75.2 feet to: Dark grayish-brown, Silty CLAY, trace Gravel, plastic, cohesive, moist. Changing at 75.3 feet to: Dark grayish-brown to grayish-brown, SAND, little Clay, little Silt, trace Gravel, non-slightly plastic, slightly cohesive, moist. Changing at 75.6 feet to: NO RECOVERY.	74' SAND			
75							75.2'			
76	38	24/22	76-78	13-21 26-31		Dark grayish-brown to very dark grayish-brown, SILT, some Clay plastic, cohesive, moist. Changing at 76.6 feet to: Dark grayish-brown to very dark	75.3' Silty CLAY 75.6' SAND 76' NO RECOVERY SILT 76.6' Silty CLAY			
77										
78	39	24/10	78-80	28-50/5"		Dark grayish-brown to very dark grayish-brown, SILT, some Clay plastic, cohesive, moist. Changing at 76.6 feet to: Dark grayish-brown to very dark	77.8' NO RECOVERY			
79										
REMARKS										
Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.									Boring No.: TA-MW-317D	

BORING WELL 6233502 WWW.FORMER-TANNERY-ROCKFORD 10\_16\_18.GPJ GZA CORP.GDT 9/27/19





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Wolverine World Wide, Inc.

Former Tannery

Rockford, Michigan

Boring No.: TA-MW-317D

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File No.: 16.0062335.02

Check: K. McDonald

Depth	Sample Information					Sample Description & Classification	Stratum Desc.	Remarks	Equipment Installed	
	No.	Pen./ Rec. (in.)	Depth (Ft.)	Blows (/6")	Test Data					
80	40	24/17	80-82	9-39-50/4"		grayish-brown, Silty CLAY, trace Gravel, plastic, cohesive, moist. Changing at 77.8 feet to: NO RECOVERY.	80' NO RECOVERY			
81						Dark grayish-brown to very dark grayish-brown, Silty CLAY, trace Gravel, plastic, cohesive, moist. Changing 78.4 feet to: Dark grayish-brown, medium to coarse SAND, wet. Changing at 79.4 feet to: NO RECOVERY.	SAND			
82	41	24/12	82-84	8-29-50/5"		Dark grayish-brown, medium to coarse SAND, wet. Changing at 81.4 feet to: NO RECOVERY.	81.4' NO RECOVERY			
83						Dark grayish-brown, medium to coarse SAND, wet. Changing at 82.6 feet to: Dark grayish-brown, GRAVEL, little Sand, trace Silt, wet. Changing at 83.0 feet to: NO RECOVERY.	82' NO RECOVERY			
84		216				No Samples collected.	82.6' SAND			
85							83' GRAVEL			
86							NO RECOVERY			
87							84' NO SAMPLES COLLECTED			
88										
89										
90										
91										
92										
93										
94										
95										
REMARKS										
Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.									Boring No.: TA-MW-317D	

BORING WELL 6233502 WWW.FORMER TANNERY ROCKFORD 10 16 18.GPJ GZA CORP.GDT 9/27/19

Silica Sand Filter Pack

Top of Well Screen



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Former Tannery

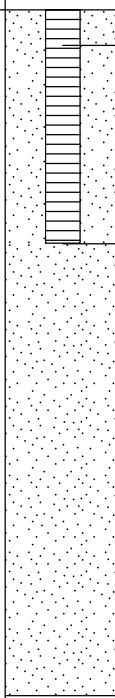
Rockford, Michigan

Boring No.: TA-MW-317D

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File No.: 16.0062335.02

Check: K. McDonald

Sample Information								Check: K. McDonald	
Depth	No.	Pen./ Rec. (in.)	Depth (Ft.)	Blows (/6")	Test Data	Sample Description & Classification	Stratum Desc.	Remarks	Equipment Installed
96							NO SAMPLES COLLECTED		 <div>2-Inch Dia. 5-Foot PVC Screen (0.010" Slot)</div> <div>Bottom of Well Screen</div>
97									
98									
99									
100									
101									
102	42	24/17	102-104	1-41-50/5"		Dark grayish-brown, SILT & CLAY, some fine to medium Sand, trace Gravel, moderately plastic, cohesive, moist. Changing at 103.4 feet to: NO RECOVERY.	102' SILT & CLAY		
103							103.4' NO RECOVERY		
104						Bottom of Borehole at 104.0 Feet	104'	2	
105									
106									
107									
108									
109									
110									
111									
REMARKS	2. Monitoring well was installed in borehole upon completion. Well screen set from approximately 93.7 to 98.5 feet below ground surface.								
	Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.								
Boring No.: TA-MW-317D									

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Boring No.: TA-MW-317D

BORING WELL 6233502 WWW.FORMER-TANNERY-ROCKFORD 10\_16\_18.GPJ GZA CORP.GDT 9/27/19

TABLE 1  
SUMMARY OF GROUNDWATER SAMPLE ANALYSIS - PFAS  
Former Tannery  
Rockford, Kent County, MI

Sample Location	Part 201 Generic Residential Groundwater Cleanup Criteria – Drinking Water <sup>2</sup>	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface <sup>2</sup>	U.S. EPA Residential Tap Water Regional Removal Management Levels <sup>3</sup>	TA-GW-01	TA-GW-02	TA-GW-03	TA-GW-04	TA-GW-05	TA-GW-06	TA-GW-07	TA-GW-08	TA-GW-09	TA-MW-1	TA-MW-2	TA-MW-3	TA-MW-4
Sample Name				TA-GW-GW01	TA-GW-GW02	TA-GW-GW03	TA-GW-GW04	TA-GW-GW5	TA-GW-GW06	TA-GW-GW7	TA-GW-GW08	TA-GW-GW09	TA-GW-MW1	TA-GW-MW2	TA-GW-MW3	TA-GW-MW4
Laboratory Sample ID(s)				UH17008-015	UH10014-022	UH17008-006	UH21044-016	UH10014-020	UH21044-002	UH10014-021	UH15001-019	UH15001-009	UH10014-019	UH21044-009	UH10014-007	UH21044-011
Sample Date				08/16/2019	08/09/2019	08/15/2019	08/21/2019	08/09/2019	08/19/2019	08/09/2019	08/12/2019	08/14/2019	08/09/2019	08/20/2019	08/08/2019	08/20/2019
Parameter (µg/L)																
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	<0.71	<0.0037	<0.036	<0.074	<0.0037	<0.036	<0.0039	<0.0036	<0.0037	<0.0037	<0.072	<0.0037	<0.073
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	<0.71	<0.0037	<0.036	0.5	<0.0037	<0.036	<0.0039	<0.0036	<0.0037	<0.0037	<0.072	<0.0037	0.33
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	<0.71	<0.0037	<0.036	<0.074	<0.0037	<0.036	<0.0039	<0.0036	<0.0037	0.007	<0.072	<0.0037	0.23
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	<1.4	<0.0074	<0.072	<0.15	<0.0075	<0.072	<0.0078	<0.0072	<0.0073	<0.0074	<0.14	<0.0074	<0.15
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	1,200	14	0.73	2.1	8.3	0.28	2.6	0.51	0.16	3.8	1.9	0.47	0.44	14
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	<0.71	<0.0037	<0.036	<0.074	<0.0037	<0.036	<0.0039	<0.0036	<0.0037	<0.0037	<0.072	0.004	<0.073
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	6.2	0.029	0.35	1.2	0.12	0.6	0.15	0.11	0.35	0.082	0.25	0.12	0.86
Perfluorononane sulfonic acid (PFNS)	NCL	NCL	NCL	<1.4	<0.0074	<0.072	<0.15	<0.0075	<0.072	<0.0078	<0.0072	<0.0073	<0.0074	<0.14	<0.0074	<0.15
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	1	<0.0037	0.24	<0.074	0.0083	0.35	<0.0039	0.024	<0.0037	0.22	1	0.31	1.1
Perfluoropentane sulfonic acid (PFPeS)	NCL	NCL	NCL	1.7	0.33	0.36	3.1	0.074	0.65	0.093	0.056	0.48	0.066	0.093	0.086	1.5
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	9.2	0.75	1.4	10	0.38	4.1	0.34	0.26	1.4	0.33	0.52	0.42	4.2
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	1.5	0.15	0.4	2.6	0.031	0.58	0.13	0.038	0.23	0.1	0.091	0.1	6.7
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	<0.71	<0.0037	0.47	<0.074	0.016	0.18	<0.0039	<0.0036	<0.0037	0.037	0.17	0.0084	<0.073
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	<0.71	<0.0037	<0.036	<0.074	<0.0037	<0.036	<0.0039	<0.0036	<0.0037	<0.0037	<0.072	<0.0037	<0.073
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	2.8	0.66	1	8.2	0.087	1.6	0.23	0.092	0.73	0.093	0.19	0.25	7.3
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	2.5	0.7	1.1	9.3	0.057	1.6	0.25	0.082	0.6	0.083	0.19	0.29	13
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	<0.71	<0.0037	0.17	0.27	0.029	0.34	0.033	0.034	0.043	0.036	0.098	0.031	0.41
<b>Perfluorooctanoic acid (PFOA)</b>	0.07 (JJ)	0.42 (X)	NCL	<b>28</b>	<b>3.6</b>	<b>8.1</b>	<b>67 [B]</b>	<b>0.95</b>	<b>9.9</b>	<b>1.7</b>	<b>1.3</b>	<b>6.1</b>	<b>0.75</b>	<b>1.5 [B]</b>	<b>3.2</b>	<b>40 [B]</b>
<b>Perfluorooctane sulfonic acid (PFOS)</b>	0.07 (JJ)	0.011 (X)	NCL	<b>550</b>	<b>0.43</b>	<b>23</b>	<b>78 [B]</b>	<b>3.9</b>	<b>29</b>	<b>7.5</b>	<b>10</b>	<b>3.3 [E]</b>	<b>2.3</b>	<b>53 [B]</b>	<b>3.5</b>	<b>52 [B]</b>
<b>PFOA + PFOS (Calculated)</b>	0.07	NCL	NCL	<b>580</b>	<b>4</b>	<b>31</b>	<b>150</b>	<b>4.9</b>	<b>39</b>	<b>9.2</b>	<b>11</b>	<b>9.4</b>	<b>3.1</b>	<b>55</b>	<b>6.7</b>	<b>92</b>
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	1.2	0.19	0.44	3.3	0.026	0.7	0.1	0.051	0.31	0.091	0.087	0.11	4.4
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	<0.71	<0.0037	<0.036	<0.074	<0.0037	<0.036	<0.0039	<0.0036	<0.0037	<0.0037	<0.072	<0.0037	<0.073
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	<0.71	<0.0037	<0.036	<0.074	<0.0037	<0.036	<0.0039	<0.0036	<0.0037	<0.0037	<0.072	<0.0037	<0.073
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	<0.71	<0.0037	<0.036	<0.074	<0.0037	<0.036	<0.0039	<0.0036	<0.0037	<0.0037	<0.072	<0.0037	<0.073
Total PFAS (Calculated)	NCL	NCL	NCL	620	7.6	39	190	6	52	11	12	17	6.1	58	8.9	150

TABLE 1  
SUMMARY OF GROUNDWATER SAMPLE ANALYSIS - PFAS  
Former Tannery  
Rockford, Kent County, MI

Sample Location	Part 201 Generic Residential Groundwater Cleanup Criteria – Drinking Water <sup>2</sup>	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface <sup>2</sup>	U.S. EPA Residential Tap Water Regional Removal Management Levels <sup>3</sup>	TA-MW-5	TA-P-1	TA-P-2	TA-P-3	TA-P-4	TA-P-5	TA-MW-301B	TA-MW-301C	TA-MW-301D	TA-MW-302A	TA-MW-302B	TA-MW-303A	TA-MW-303A
Sample Name				TA-GW-MW5	TA-GW-P1	TA-GW-P2	TA-GW-P3	TA-GW-P4	TA-GW-P5	TA-GW-MW301B	TA-GW-MW301C	TA-GW-MW301D	TA-GW-MW302A	TA-GW-MW302B	TA-GW-MW303A	TA-GW-MW303A DUP
Laboratory Sample ID(s)				UH15001-010	UH17008-002	UH17008-001	UH17008-011	UH17008-014	UH21044-015	UH21044-001	UH21044-018	UH10014-018	UH17008-003	UH17008-004	UH21044-006	UH21044-007
Sample Date				08/14/2019	08/15/2019	08/15/2019	08/16/2019	08/16/2019	08/21/2019	08/19/2019	08/21/2019	08/07/2019	08/15/2019	08/15/2019	08/19/2019	08/19/2019
Parameter (µg/L)																
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	<0.0037	<0.0037	<0.019	<0.019	<0.074	<0.072	<0.018	<0.36	<0.0036	<0.0037	<0.018	<0.039	<0.037
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	0.0044	0.02	0.028	0.071	0.098	<0.072	<0.018	<0.36	<0.0036	0.0064	<0.018	<0.039	<0.037
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	<0.0037	<0.0037	<0.019	<0.019	<0.074	<0.072	<0.018	<0.36	<0.0036	<0.0037	<0.018	<0.039	<0.037
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	<0.0074	<0.0074	<0.037	<0.037	<0.15	<0.14	<0.037	<0.71	<0.0072	<0.0074	<0.036	<0.079	<0.075
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	1,200	0.11	2.6	3.6	7.6	2.8	2.4	0.75	1.1	<0.0036	2.9	1.8	11	12
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	0.011	0.0076	<0.019	<0.019	<0.074	<0.072	<0.018	<0.36	<0.0036	0.0053	<0.018	<0.039	<0.037
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	0.14	0.4	1.3	0.46	0.76	1.4	0.26	2.4	<0.0036	0.14	0.2	0.48	0.48
Perfluorononane sulfonic acid (PFNS)	NCL	NCL	NCL	0.022	<0.0074	<0.037	<0.037	<0.15	<0.14	<0.037	0.79	<0.0072	<0.0074	<0.036	<0.079	<0.075
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	1.5	0.18	0.039	0.055	0.96	1.1	0.11	<0.36	<0.0036	0.2	1.1	0.34	0.37
Perfluoropentane sulfonic acid (PFPeS)	NCL	NCL	NCL	0.043	0.8	0.63	0.7	0.37	0.31	0.2	0.99	<0.0036	0.23	0.33	0.82	0.85
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	0.54	1.7	4.1	3.3	1.9	1.9	0.91	10	<0.0036	0.58	1.1	2.7	2.5
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	0.033	0.72	0.63	1.4	0.76	0.5	0.21	0.92	<0.0036	0.34	0.37	0.76	0.77
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	0.037	0.0065	<0.019	0.021	0.15	0.16	0.06	<0.36	<0.0036	0.033	<0.018	<0.039	0.04
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	<0.0037	<0.0037	<0.019	<0.019	<0.074	<0.072	<0.018	<0.36	<0.0036	<0.0037	<0.018	<0.039	<0.037
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	0.16	1.4	1.1	2	1.3	0.73	0.77	16	<0.0036	0.31	0.66	1.1	1.2
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	0.16	1.6	1.4	2.9	2	1.2	0.79	17	<0.0036	0.34	0.73	1.2	1.4
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	0.032	0.064	0.12	0.14	0.28	0.13	0.055	<0.36	<0.0036	0.036	0.048	0.071	0.073
Perfluorooctanoic acid (PFOA)	0.07 (JJ)	0.42 (X)	NCL	1.7	11	13	12	8.3	7.3 [B]	10	210 [B]	<0.0018	2.4	6.4	5.9	5.9
Perfluorooctane sulfonic acid (PFOS)	0.07 (JJ)	0.011 (X)	NCL	13	11	25	26	78	76 [B]	33	490 [B]	0.011	5.6	15	32	32
PFOA + PFOS (Calculated)	0.07	NCL	NCL	15	22	38	38	86	83	43	700	0.011	8	21	38	38
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	0.041	0.7	0.39	1.2	0.69	0.64	0.29	2.4	<0.0036	0.18	0.3	0.53	0.53
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	<0.0037	<0.0037	<0.019	<0.019	<0.074	<0.072	<0.018	<0.36	<0.0036	<0.0037	<0.018	<0.039	<0.037
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	<0.0037	<0.0037	<0.019	<0.019	<0.074	<0.072	<0.018	<0.36	<0.0036	<0.0037	<0.018	<0.039	<0.037
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	<0.0037	<0.0037	<0.019	<0.019	<0.074	<0.072	<0.018	<0.36	<0.0036	<0.0037	0.41	<0.039	<0.037
Total PFAS (Calculated)	NCL	NCL	NCL	18	32	51	58	98	94	47	750	0.011	13	28	57	58



TABLE 1  
SUMMARY OF GROUNDWATER SAMPLE ANALYSIS - PFAS  
Former Tannery  
Rockford, Kent County, MI

Sample Location	Part 201 Generic Residential Groundwater Cleanup Criteria – Drinking Water <sup>2</sup>	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface <sup>2</sup>	U.S. EPA Residential Tap Water Regional Removal Management Levels <sup>3</sup>	TA-MW-303B	TA-MW-303C	TA-MW-303D	TA-MW-303E	TA-MW-304A	TA-MW-304B	TA-MW-305B	TA-MW-305C	TA-MW-306A	TA-MW-306B	TA-MW-307A	TA-MW-307B	TA-MW-308A
Sample Name				TA-GW-MW303B	TA-GW-MW303C	TA-GW-MW303D	TA-GW-MW303E	TA-GW-MW304A	TA-GW-MW304B	TA-GW-MW305B	TA-GW-MW305C	TA-GW-MW306A	TA-GW-MW306B	TA-GW-MW307A	TA-GW-MW307B	TA-GW-MW308A
Laboratory Sample ID(s)				UH21044-004	UH21044-003	UH10014-017	UH07038-001	UH21044-008	UH10014-011	UH21044-012	UH21044-013	UH15001-005	UH15001-013	UH15001-002	UH10014-006	UH17008-005
Sample Date				08/19/2019	08/19/2019	08/07/2019	08/06/2019	08/19/2019	08/08/2019	08/20/2019	08/20/2019	08/13/2019	08/14/2019	08/13/2019	08/08/2019	08/15/2019
Parameter (µg/L)																
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	<0.022	<0.018	<0.0036	<0.0035	<0.072	<0.0037	<0.035	<0.036	<0.0035	<0.0037	<0.0036	<0.0036	<0.018
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	<0.022	0.069	<0.0036	<0.0035	<0.072	0.0065	0.21	0.29	0.012	0.041	<0.0036	<0.0036	<0.018
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	<0.022	<0.018	<0.0036	<0.0035	<0.072	<0.0037	<0.035	<0.036	<0.0035	<0.0037	<0.0036	<0.0036	<0.018
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	<0.044	<0.036	<0.0072	<0.007	<0.14	<0.0074	<0.07	<0.072	<0.007	<0.0074	<0.0073	<0.0073	<0.036
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	1,200	8	9.3	0.085	<0.0035	2.1	0.46	15	15	0.69	1.9	0.62	0.22	0.99
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	<0.022	<0.018	<0.0036	<0.0035	<0.072	<0.0037	<0.035	<0.036	<0.0035	<0.0037	<0.0036	<0.0036	<0.018
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	0.37	0.29	<0.0036	<0.0035	0.54	0.029	0.65	0.9	0.13	0.18	0.25	<0.0036	0.33
Perfluorononane sulfonic acid (PFNS)	NCL	NCL	NCL	<0.044	<0.036	<0.0072	<0.007	<0.14	<0.0074	<0.07	<0.072	<0.007	0.0081	<0.0073	<0.0073	<0.036
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	0.16	0.19	<0.0036	<0.0035	0.29	0.013	<0.035	<0.036	0.15	0.091	<0.0036	<0.0036	0.037
Perfluoropentane sulfonic acid (PFPeS)	NCL	NCL	NCL	0.68	0.51	<0.0036	<0.0035	0.3	0.094	2.1	2.6	0.11	0.3	0.26	0.021	0.2
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	2.8	1.8	0.0057	<0.0035	1.3	0.34	4.6	6.1	0.52	1.2	0.92	0.038	1.1
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	0.92	1.6	0.0081	<0.0035	0.41	0.28	4.5	5.6	0.18	0.59	0.11	0.083	0.37
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	<0.022	<0.018	<0.0036	<0.0035	<0.072	0.0053	<0.035	0.088	0.093	0.03	<0.0036	<0.0036	<0.018
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	<0.022	<0.018	<0.0036	<0.0035	<0.072	<0.0037	<0.035	<0.036	<0.0035	<0.0037	<0.0036	<0.0036	<0.018
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	1.2	1.5	0.0048	<0.0035	0.68	0.2	8.2	10	0.25	0.8	0.46	0.083	1.2
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	1.5	2.8	0.0084	<0.0035	0.93	0.52	22	22	0.33	0.94	0.36	0.16	1.3
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	0.082	0.12	<0.0036	<0.0035	0.13	0.015	0.11	0.23	0.091	0.068	0.04	<0.0036	0.11
Perfluorooctanoic acid (PFOA)	0.07 (JJ)	0.42 (X)	NCL	7.6	9.1	0.024	<0.0018	4.7	0.92	29 [B]	44 [B]	2.2	6.4	4	0.3	12
Perfluorooctane sulfonic acid (PFOS)	0.07 (JJ)	0.011 (X)	NCL	27	23	0.021	<0.0035	61	1	25 [B]	39 [B]	8.9	6.9	4.1	0.014	16
PFOA + PFOS (Calculated)	0.07	NCL	NCL	35	32	0.045	ND	66	1.9	54	83	11	13	8.1	0.31	28
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	0.58	0.96	0.0053	<0.0035	0.34	0.12	4.5	5.3	0.17	0.45	0.14	0.068	0.98
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	<0.022	<0.018	<0.0036	<0.0035	<0.072	<0.0037	<0.035	<0.036	<0.0035	<0.0037	<0.0036	<0.0036	<0.018
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	<0.022	<0.018	<0.0036	<0.0035	<0.072	<0.0037	<0.035	<0.036	<0.0035	<0.0037	<0.0036	<0.0036	<0.018
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	<0.022	<0.018	<0.0036	<0.0035	<0.072	<0.0037	<0.035	<0.036	<0.0035	<0.0037	<0.0036	<0.0036	<0.018
Total PFAS (Calculated)	NCL	NCL	NCL	51	51	0.16	ND	73	4	120	150	14	20	11	0.99	35

TABLE 1  
SUMMARY OF GROUNDWATER SAMPLE ANALYSIS - PFAS  
Former Tannery  
Rockford, Kent County, MI

Sample Location	Part 201 Generic Residential Groundwater Cleanup Criteria – Drinking Water <sup>2</sup>	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface <sup>2</sup>	U.S. EPA Residential Tap Water Regional Removal Management Levels <sup>3</sup>	TA-MW-308B	TA-MW-308C	TA-MW-309A	TA-MW-309B	TA-MW-309C	TA-MW-309D	TA-MW-310B	TA-MW-310C	TA-MW-311A	TA-MW-311B	TA-MW-311C	TA-MW-312	TA-MW-313A
Sample Name				TA-GW-MW308B	TA-GW-MW308C	TA-GW-MW309A	TA-GW-MW309B	TA-GW-MW309C	TA-GW-MW309D	TA-GW-MW310B	TA-GW-MW310C	TA-GW-MW311A	TA-GW-MW311B	TA-GW-MW311C	TA-GW-MW312	TA-GW-MW313A
Laboratory Sample ID(s)				UH07038-002	UH10014-016	UH15001-001	UH15001-004	UH17008-012	UH21044-005	UH10014-005	UH10014-002	UH07038-006	UH10014-015	UH07038-007	UH15001-003	UH10014-014
Sample Date				08/06/2019	08/07/2019	08/13/2019	08/13/2019	08/16/2019	08/19/2019	08/08/2019	08/08/2019	08/06/2019	08/07/2019	08/06/2019	08/13/2019	08/07/2019
Parameter (µg/L)																
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	<0.0038	<0.0038	<0.0036	<0.0035	<0.018	<0.037	<0.0036	<0.0037	<0.0036	<0.0037	<0.0036	<0.0036	<0.0036
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	<0.0038	<0.0038	<0.0036	<0.0035	<0.018	<0.037	<0.0036	<0.0037	<0.0036	<0.0037	<0.0036	<0.0036	<0.0036
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	<0.0038	<0.0038	<0.0036	<0.0035	<0.018	<0.037	<0.0036	<0.0037	<0.0036	<0.0037	<0.0036	<0.0036	<0.0036
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	<0.0076	<0.0075	<0.0073	<0.007	<0.037	<0.075	<0.0073	<0.0073	<0.0072	<0.0074	<0.0072	<0.0072	<0.0072
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	1,200	<0.0038	<0.0038	0.3	0.27	0.42	0.56	0.12	0.19	0.027	<0.0037	<0.0036	0.0075	0.17
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	<0.0038	<0.0038	0.0043	<0.0035	<0.018	<0.037	<0.0036	<0.0037	<0.0036	<0.0037	<0.0036	<0.0036	<0.0036
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	<0.0038	<0.0038	0.21	0.2	0.29	0.35	0.032	<0.0037	0.019	<0.0037	<0.0036	0.0052	0.061
Perfluorononane sulfonic acid (PFNS)	NCL	NCL	NCL	<0.0076	<0.0075	0.0097	<0.007	<0.037	<0.075	<0.0073	<0.0073	<0.0072	<0.0074	<0.0072	<0.0072	<0.0072
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	<0.0038	<0.0038	0.27	0.033	<0.018	<0.037	0.85	<0.0037	<0.0036	<0.0037	<0.0036	<0.0036	<0.0036
Perfluoropentane sulfonic acid (PFPeS)	NCL	NCL	NCL	<0.0038	<0.0038	0.083	0.092	0.16	0.21	0.041	0.075	0.0053	<0.0037	<0.0036	<0.0036	0.12
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	<0.0038	<0.0038	0.4	0.37	0.69	0.98	0.14	0.034	0.032	<0.0037	<0.0036	0.0096	0.41
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	<0.0038	0.0057	0.052	0.071	0.11	0.15	0.029	0.15	0.0097	<0.0037	<0.0036	<0.0036	0.057
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	<0.0038	<0.0038	<0.0036	0.0053	<0.018	0.056	0.052	<0.0037	<0.0036	<0.0037	<0.0036	<0.0036	<0.0036
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	<0.0038	<0.0038	<0.0036	<0.0035	<0.018	<0.037	<0.0036	<0.0037	<0.0036	<0.0037	<0.0036	<0.0036	<0.0036
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	<0.0038	<0.0038	0.15	0.16	0.3	0.78	0.064	0.14	0.013	<0.0037	<0.0036	0.0048	0.18
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	<0.0038	0.0039	0.13	0.18	0.33	0.92	0.061	0.3	0.018	<0.0037	<0.0036	0.0042	0.16
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	<0.0038	<0.0038	0.05	0.065	0.072	0.091	0.012	<0.0037	<0.0036	<0.0037	<0.0036	<0.0036	<0.0036
<b>Perfluorooctanoic acid (PFOA)</b>	0.07 (JJ)	0.42 (X)	NCL	<0.0019	0.0034	<b>2.1</b>	<b>2.4</b>	<b>3.9</b>	<b>9.5</b>	<b>0.61</b>	<b>0.24</b>	<b>0.14</b>	<0.0018	<0.0018	0.043	<b>1.2</b>
<b>Perfluorooctane sulfonic acid (PFOS)</b>	0.07 (JJ)	0.011 (X)	NCL	<0.0038	0.0075	<b>8.7</b>	<b>8.6</b>	<b>19</b>	<b>43</b>	<b>2</b>	0.0037	<b>0.69</b>	<0.0037	<0.0036	<b>0.079</b>	<b>0.37</b>
<b>PFOA + PFOS (Calculated)</b>	0.07		NCL	ND	0.011	<b>11</b>	<b>11</b>	<b>23</b>	<b>53</b>	<b>2.6</b>	<b>0.24</b>	<b>0.83</b>	ND	ND	<b>0.12</b>	<b>1.6</b>
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	<0.0038	<0.0038	0.076	0.097	0.15	0.25	0.047	0.18	0.0091	<0.0037	<0.0036	<0.0036	0.093
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	<0.0038	<0.0038	<0.0036	<0.0035	<0.018	<0.037	<0.0036	<0.0037	<0.0036	<0.0037	<0.0036	<0.0036	<0.0036
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	<0.0038	<0.0038	0.0063	<0.0035	<0.018	<0.037	<0.0036	<0.0037	<0.0036	<0.0037	<0.0036	<0.0036	<0.0036
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	<0.0038	<0.0038	<0.0036	<0.0035	<0.018	<0.037	<0.0036	<0.0037	<0.0036	<0.0037	<0.0036	<0.0036	<0.0036
Total PFAS (Calculated)	NCL	NCL	NCL	ND	0.021	13	13	25	57	4.1	1.3	0.96	ND	ND	0.15	2.8

TABLE 1  
SUMMARY OF GROUNDWATER SAMPLE ANALYSIS - PFAS  
Former Tannery  
Rockford, Kent County, MI

Sample Location	Part 201 Generic Residential Groundwater Cleanup Criteria – Drinking Water <sup>2</sup>	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface <sup>2</sup>	U.S. EPA Residential Tap Water Regional Removal Management Levels <sup>3</sup>	TA-MW-313B	TA-MW-313C	TA-MW-315D	TA-MW-315S	TA-MW-315S	TA-MW-316D	TA-MW-316M	TA-MW-316S	TA-TMW-101	TA-TMW-102	TA-TMW-103	TA-TMW-104	TA-TMW-104
Sample Name				TA-GW-MW313B	TA-GW-MW313C	TA-GW-MW315D	TA-GW-MW315S	TA-GW-MW315S DUP	TA-GW-MW316D	TA-GW-MW316M	TA-GW-MW316S	TA-GW-TMW101	TA-GW-TMW102	TA-GW-TMW103	TA-GW-TMW104	TA-GW-TMW104 DUP
Laboratory Sample ID(s)				UH10014-012	UH10014-013	UH10014-001	UH10014-003	UH10014-004	UH07038-004	UH07038-003	UH07038-005	UH21044-017	UH15001-007	UH15001-018	UH15001-011	UH15001-012
Sample Date				08/07/2019	08/07/2019	08/08/2019	08/08/2019	08/08/2019	08/06/2019	08/06/2019	08/06/2019	08/21/2019	08/13/2019	08/12/2019	08/14/2019	08/14/2019
Parameter (µg/L)																
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	<0.0037	<0.0037	<0.0036	<0.0036	<0.0036	<0.0037	<0.0035	<0.0037	<0.075	<0.0037	<0.0038	<0.019	<0.018
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	<0.0037	<0.0037	<0.0036	<0.0036	<0.0036	<0.0037	<0.0035	<0.0037	<0.075	<0.0037	0.0052	<0.019	<0.018
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	<0.0037	<0.0037	<0.0036	<0.0036	<0.0036	<0.0037	<0.0035	<0.0037	<0.075	<0.0037	<0.0038	<0.019	<0.018
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	<0.0073	<0.0074	<0.0073	<0.0071	<0.0072	<0.0074	<0.007	<0.0074	<0.15	<0.0074	<0.0077	<0.037	<0.036
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	1,200	0.077	0.027	<0.0036	0.08	0.079	<0.0037	0.054	<0.0037	0.68	0.56	0.44	0.71	0.71
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	<0.0037	<0.0037	<0.0036	<0.0036	<0.0036	<0.0037	<0.0035	<0.0037	<0.075	<0.0037	<0.0038	<0.019	<0.018
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	0.0088	<0.0037	<0.0036	0.091	0.085	<0.0037	0.013	<0.0037	0.63	0.3	0.12	0.25	0.27
Perfluorononane sulfonic acid (PFNS)	NCL	NCL	NCL	<0.0073	<0.0074	<0.0073	<0.0071	<0.0072	<0.0074	<0.007	<0.0074	0.23	<0.0074	<0.0077	<0.037	<0.036
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	<0.0037	<0.0037	<0.0036	<0.0036	<0.0036	<0.0037	<0.0035	<0.0037	0.089	<0.0037	0.19	<0.019	<0.018
Perfluoropentane sulfonic acid (PFPeS)	NCL	NCL	NCL	0.025	0.012	<0.0036	0.013	0.013	<0.0037	0.0087	<0.0037	0.31	0.29	0.14	0.26	0.28
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	0.1	0.025	<0.0036	0.087	0.077	<0.0037	0.042	<0.0037	1.7	1.1	0.5	0.78	0.87
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	0.023	0.012	<0.0036	0.018	0.019	<0.0037	0.014	<0.0037	0.25	0.1	0.063	0.081	0.085
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	<0.0037	<0.0037	<0.0036	<0.0036	<0.0036	<0.0037	<0.0035	<0.0037	<0.075	0.0087	0.011	0.019	0.022
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	<0.0037	<0.0037	<0.0036	<0.0036	<0.0036	<0.0037	<0.0035	<0.0037	<0.075	<0.0037	<0.0038	<0.019	<0.018
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	0.033	0.022	<0.0036	0.034	0.031	<0.0037	0.023	<0.0037	2.1	0.46	0.23	0.32	0.31
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	0.041	0.032	<0.0036	0.037	0.035	<0.0037	0.038	0.0038	1.7	0.36	0.22	0.23	0.26
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	<0.0037	<0.0037	<0.0036	0.0093	0.011	<0.0037	<0.0035	<0.0037	0.096	0.042	0.029	0.056	0.062
Perfluorooctanoic acid (PFOA)	0.07 (JJ)	0.42 (X)	NCL	0.31	0.097	0.002	0.39	0.4	<0.0018	0.16	0.013	42 [B]	4	2.2	3.6	3.7
Perfluorooctane sulfonic acid (PFOS)	0.07 (JJ)	0.011 (X)	NCL	0.048	0.023	<0.0036	2.5	2.4	<0.0037	0.067	0.39	140 [B]	5.7	4.2	17	19
PFOA + PFOS (Calculated)	0.07	NCL	NCL	0.36	0.12	0.002	2.9	2.8	ND	0.23	0.4	180	9.7	6.4	21	23
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	0.031	0.022	<0.0036	0.023	0.024	<0.0037	0.032	0.0039	0.46	0.12	0.1	0.089	0.097
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	<0.0037	<0.0037	<0.0036	<0.0036	<0.0036	<0.0037	<0.0035	<0.0037	<0.075	<0.0037	<0.0038	<0.019	<0.018
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	<0.0037	<0.0037	<0.0036	<0.0036	<0.0036	<0.0037	<0.0035	<0.0037	<0.075	<0.0037	<0.0038	<0.019	<0.018
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	<0.0037	<0.0037	<0.0036	<0.0036	<0.0036	<0.0037	<0.0035	<0.0037	<0.075	<0.0037	<0.0038	<0.019	<0.018
Total PFAS (Calculated)	NCL	NCL	NCL	0.7	0.27	0.002	3.3	3.2	ND	0.45	0.41	190	13	8.4	23	26

TABLE 1  
SUMMARY OF GROUNDWATER SAMPLE ANALYSIS - PFAS  
Former Tannery  
Rockford, Kent County, MI

Sample Location	Part 201 Generic Residential Groundwater Cleanup Criteria – Drinking Water <sup>2</sup>	Part 201 Generic Groundwater Cleanup Criteria – Groundwater Surface Water Interface <sup>2</sup>	U.S. EPA Residential Tap Water Regional Removal Management Levels <sup>3</sup>	TA-TMW-105	TA-TMW-108	TA-TMW-109	TA-TMW-110	TA-TMW-111
Sample Name				TA-GW-TMW105	TA-GW-TMW108	TA-GW-TMW109	TA-GW-TMW110	TA-GW-TMW111
Laboratory Sample ID(s)				UH17008-013	UH15001-006	UH15001-017	UH21044-010	UH15001-020
Sample Date				08/16/2019	08/13/2019	08/12/2019	08/20/2019	08/12/2019
Parameter (µg/L)								
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	NCL	NCL	NCL	<0.035	<0.0037	<0.0037	<0.073	<0.0037
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	NCL	NCL	NCL	<0.035	<0.0037	<0.0037	<0.073	<0.0037
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	NCL	NCL	NCL	<0.035	<0.0037	<0.0037	<0.073	<0.0037
N-Methyl perfluorooctane sulfonamide (MeFOSA)	NCL	NCL	NCL	<0.071	<0.0074	<0.0075	<0.15	<0.0074
Perfluorobutane sulfonic acid (PFBS)	NCL	NCL	1,200	2	0.61	0.37	0.29	0.61
Perfluorodecane sulfonic acid (PFDS)	NCL	NCL	NCL	<0.035	<0.0037	<0.0037	<0.073	<0.0037
Perfluoroheptane sulfonic acid (PFHpS)	NCL	NCL	NCL	0.34	0.25	0.066	0.71	0.22
Perfluorononane sulfonic acid (PFNS)	NCL	NCL	NCL	<0.071	<0.0074	<0.0075	<0.15	<0.0074
Perfluorooctane sulfonamide (FOSA)	NCL	NCL	NCL	0.86	<0.0037	0.07	<0.073	<0.0037
Perfluoropentane sulfonic acid (PFPeS)	NCL	NCL	NCL	0.35	0.25	0.055	0.33	0.3
Perfluorohexane sulfonic acid (PFHxS)	NCL	NCL	NCL	1.3	0.93	0.22	2.1	1
Perfluorobutanoic acid (PFBA)	NCL	NCL	NCL	0.4	0.13	0.075	<0.073	0.11
Perfluorodecanoic acid (PFDA)	NCL	NCL	NCL	0.34	0.0095	<0.0037	<0.073	<0.0037
Perfluorododecanoic acid (PFDoDA)	NCL	NCL	NCL	<0.035	<0.0037	<0.0037	<0.073	<0.0037
Perfluoroheptanoic acid (PFHpA)	NCL	NCL	NCL	0.87	0.5	0.17	0.7	0.5
Perfluorohexanoic acid (PFHxA)	NCL	NCL	NCL	1	0.4	0.19	0.47	0.3
Perfluorononanoic acid (PFNA)	NCL	NCL	NCL	0.14	0.037	0.019	<0.073	0.031
<b>Perfluorooctanoic acid (PFOA)</b>	0.07 (JJ)	0.42 (X)	NCL	<b>6.2</b>	<b>3.6</b>	<b>1</b>	<b>7.1 [B]</b>	<b>4.5</b>
<b>Perfluorooctane sulfonic acid (PFOS)</b>	0.07 (JJ)	0.011 (X)	NCL	<b>27</b>	<b>3.9</b>	<b>2.9</b>	<b>55 [B]</b>	<b>3.5</b>
<b>PFOA + PFOS (Calculated)</b>	0.07	NCL	NCL	<b>33</b>	<b>7.5</b>	<b>3.9</b>	<b>62</b>	<b>8</b>
Perfluoropentanoic acid (PFPeA)	NCL	NCL	NCL	0.41	0.16	0.12	0.096	0.13
Perfluorotetradecanoic acid (PFTeDA)	NCL	NCL	NCL	<0.035	<0.0037	<0.0037	<0.073	<0.0037
Perfluorotridecanoic acid (PFTrDA)	NCL	NCL	NCL	<0.035	<0.0037	<0.0037	<0.073	<0.0037
Perfluoroundecanoic acid (PFUnDA)	NCL	NCL	NCL	<0.035	<0.0037	<0.0037	<0.073	<0.0037
Total PFAS (Calculated)	NCL	NCL	NCL	41	11	5.3	67	11



**TABLE 1 NOTES**  
SUMMARY OF GROUNDWATER SAMPLE ANALYSIS  
Former Tannery  
Rockford, Kent County, MI

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**NOTES:**

1. Concentration and criteria units are micrograms per Liter ( µg/L) or parts per billion (ppb). Calculated criteria and concentrations are rounded to two significant digits.
2. Michigan Part 201 Groundwater Cleanup Criteria are based on "Table 1, Groundwater: Residential and Nonresidential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Tier I Risk Based Screening Levels," Michigan Administrative Code, Cleanup Criteria Requirements for Response Activity, Rules 299.44 and 299.49, effective December 30, 2013; updated June 25, 2018.

Abbreviations Include:

"NCL" indicates no criterion listed in Michigan Department of Environment, Great Lakes, and Energy (EGLE) Table 1.

Footnotes Include:

(X) - For groundwater discharge to the Great Lakes and their connecting waters or discharge in close proximity to a water supply intake in inland surface waters, the generic GSI criterion shall be the surface water human drinking water value (HDV) listed in the table of this footnote except for those HDV indicated with an asterisk. For HDV with an asterisk, the generic GSI criterion shall be the lowest of the HDV, the wildlife value (WV), and the calculated final chronic value (FCV). Criterion listed have been updated to the HDV, WV, or FCV.

(JJ) - Compliance with the drinking water criteria shall require comparing the sum of the PFOA and PFOS groundwater concentrations to the drinking water criterion of 0.07 µg/L.

3. U.S. EPA Residential Tap Water Regional Removal Management Levels (RMLs) were based on "Generic RML Tables," updated November 2018.
4. Bold, italic number with thick line border or italic parameter name indicates that parameter was detected above the Michigan Part 201 Groundwater Cleanup Criteria or Media-Specific Interim Action Screening Levels. U.S. EPA RMLs are provided for reference only and results detected above the EPA RMLs are not bolded or italicized.

5. Abbreviation includes:

"< RL" indicates the parameter was analyzed for but not detected above the method detection limit; RL = Reporting Limit.

"B" indicates the parameter was also detected in the method blank.

"E" indicates the quantitation of the compound exceeded the calibration range.