

**PFAS Nomenclature**  
**GSU Monitoring Well Sampling Analytical Results**  
**April 2021**  
**Iosco County, Michigan**  
**60612721**

Chemical Name	Abbreviation	Cas Number
Perfluorobutanoic acid	PFBA	375-22-4
Perfluoropentanoic acid	PFPeA	2706-90-3
Perfluorohexanoic acid	PFHxA	307-24-4
Perfluoroheptanoic acid	PFHpA	375-85-9
Perfluorooctanoic acid	PFOA	335-67-1
Perfluorononanoic acid	PFNA	375-95-1
Perfluorodecanoic acid	PFDA	335-76-2
Perfluoroundecanoic acid	PFUnA	2058-94-8
Perfluorododecanoic acid	PFDoA	307-55-1
Perfluorotridecanoic acid	PFTTrDA	72629-94-8
Perfluorotetradecanoic acid	PFTeDA	376-06-7
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid	9Cl-PF3ONS	756426-58-1
4,8-Dioxa-3H-perfluorononanoic acid	ADONA	919005-14-4
Perfluoro-2-propoxypropanoic acid	HFPO-DA	13252-13-6
Perfluorodecane sulfonic acid	PFDS	335-77-3
Perfluorobutane sulfonic acid	PFBS	375-73-5
Perfluoropentane sulfonic acid	PFPeS	2706-91-4
Perfluorohexane sulfonic acid	PFHxS	355-46-4
Perfluoroheptane sulfonic acid	PFHpS	375-92-8
Perfluorooctane sulfonic acid	PFOS	1763-23-1
Perfluorononane sulfonic acid	PFNS	68259-12-1
Perfluorooctanesulfonamide	PFOSA	754-91-6
4:2 Fluorotelomer sulfonic acid	4:2 FTS	757124-72-4
6:2 Fluorotelomer sulfonic acid	6:2 FTS	27619-97-2
8:2 Fluorotelomer sulfonic acid	8:2FTS	39108-34-4
N-Ethyl Perfluorooctane sulfonamido acetic acid	EtFOSAA	2991-50-6
N-Methyl Perfluorooctane sulfonamide	MeFOSAA	2355-31-9

	Perfluoroalkyl Carboxylic Acids ( <b>PFCAs</b> )
	Perfluoropolyether carboxylic acids ( <b>PFPE</b> )
	Perfluoroalkane Sulfonic Acids ( <b>PFSAs</b> )
	Perfluoroalkane Sulfonamides ( <b>FASAs</b> )
	Fluorotelomer Sulfonic Acids ( <b>FTSAs</b> )
	N-Ethyl Perfluoroalkane Sulfonamidoacetic Acids ( <b>EtFASAAs</b> )
	N-Methyl Perfluoroalkane Sulfonamidoacetic Acids ( <b>MeFASAAs</b> )

**GSU Quarterly Groundwater Sampling Analytical Results**  
**April 2021**  
**Iosco County, Michigan**

Location			DEQ-CR-MW002						
Well Screen Interval (bgs)			20 - 25 ft						
Sample			GW1910081420RAP	GW2001221050MK	GW2004151045RL	GW2007151105RL	GW2010281015RL	GW2101261405SK	GW2104071245RLF
Sample Date			10/8/2019	1/22/2020	4/15/2020	7/15/2020	10/28/2020	1/26/2021	4/7/2021
Lab Report			1903623	2000165	2000899	2001522	2002372	2102039	2104109
Compound	Unit	Michigan Part 201 Drinking Water Criteria	Result	Result	Result	Result	Result	Result	Result
PFBA	ppt	NC	< 2.11	<b>2.39 J</b>	<b>1.62 J</b>	<b>2.84 J</b>	<b>1.95 J</b>	<b>2.99 J</b>	<b>2.37 J</b>
PFPeA	ppt	NC	< 2.11	< 2.02	< 2.02	<b>1.5 J</b>	< 2.02	<b>1.24 J</b>	<b>3.26 J</b>
PFHxA	ppt	<b>400,000</b>	< 2.11	< 2.02	<b>2.97 J</b>	<b>1.8 J</b>	<b>1.62 J</b>	<b>2.36 J, Q</b>	<b>6.11 Q</b>
PFHpA	ppt	NC	< 2.11	<b>3.03 J, Q</b>	<b>4.69 Q</b>	<b>2.07 J</b>	<b>1.09 J</b>	<b>4.09</b>	<b>4.93 Q</b>
PFOA	ppt	<b>8</b>	<b>2.12 J</b>	<b>7.31</b>	<b>7.65</b>	<b>4.37</b>	<b>2.52 J</b>	<b>5.32</b>	<b>10.9</b>
PFNA	ppt	<b>6</b>	< 2.11	< 2.02	< 2.02	< 2.15	< 2.02	< 2.01	< 2.05
PFDA	ppt	NC	< 2.11	< 2.02	< 2.02	< 2.15	< 2.02	< 2.01	< 2.05
PFUnDA	ppt	NC	< 2.11	< 2.02	< 2.02	< 2.15	< 2.02	< 2.01	< 2.05
PFDoDA	ppt	NC	< 2.11	< 2.02	< 2.02	< 2.15	< 2.02	< 2.01	< 2.05
PFTeDA	ppt	NC	< 2.11	< 2.02	< 2.02	< 2.15	< 2.02	< 2.01	< 2.05
PFTeDA	ppt	NC	< 2.11	< 2.02	< 2.02	< 2.15	< 2.02	< 2.01	< 2.05
11CI-PF3OUdS	ppt	NC	---	< 2.02	< 2.02	< 2.15	< 2.02	< 2.01	< 2.05
9CI-PF3ONS	ppt	NC	---	< 2.02	< 2.02	< 2.15	< 2.02	< 2.01	< 2.05
ADONA	ppt	NC	---	< 2.02	< 2.02	< 2.15	< 2.02	< 2.01	< 2.05
HFPO-DA	ppt	<b>370</b>	---	< 3.02	< 3.04	< 3.22	< 2.02	< 2.01	< 2.05
PFDS	ppt	NC	< 2.11	< 2.02	< 2.02	< 2.15	< 2.02	< 2.01	< 2.05
PFBS	ppt	<b>420</b>	< 2.11	<b>1.93 J</b>	< 2.02	< 2.15	<b>2.16 J</b>	<b>2.11 J</b>	<b>1.59 J</b>
PFPeS	ppt	NC	< 2.11	< 2.02	< 2.02	< 2.15	<b>3.77 J</b>	<b>1.66 J</b>	< 2.05
PFHxS	ppt	<b>51</b>	< 2.11	<b>4.93</b>	<b>4.5</b>	<b>1.85 J</b>	<b>1.4 J</b>	<b>4.34</b>	<b>12.1</b>
PFHpS	ppt	NC	< 2.11	< 2.02	< 2.02	< 2.15	< 2.02	< 2.01	< 2.05
PFOS	ppt	<b>16</b>	<b>12.9</b>	<b>41.5</b>	<b>43.9</b>	<b>25.4</b>	<b>26.8</b>	<b>36.5</b>	<b>55</b>
PFNS	ppt	NC	< 2.11	< 2.02	< 2.02	< 2.15	< 2.02	< 2.01	< 2.05
FOSA	ppt	NC	< 2.11	< 2.02	< 2.02	< 2.15	< 2.02	< 2.01	< 2.05
4:2 FTS	ppt	NC	< 2.11	< 2.02	< 2.02	< 2.15	< 2.02	< 2.01	< 2.05
6:2 FTS	ppt	NC	< 2.11	< 2.02	< 2.02	< 2.15	< 2.02	< 2.01	< 2.05
8:2 FTS	ppt	NC	< 2.11	< 2.02	< 2.02	< 2.15	< 2.02	< 2.01	< 2.05
NEtFOSAA	ppt	NC	< 2.11	< 2.02	< 2.02	< 2.15	< 2.02	< 2.01	< 2.05
NMeFOSAA	ppt	NC	< 2.11	< 2.02	< 2.02	< 2.15	< 2.02	< 2.01	< 2.05
Total PFAS	ppt	NC	<b>15.02</b>	<b>61.09</b>	<b>65.33</b>	<b>39.83</b>	<b>41.31</b>	<b>60.61</b>	<b>96.26</b>

- Footnotes:
1. bgs - Below ground surface
  2. ft = feet
  3. ND - Result below detection limit
  4. ppt - Parts Per Trillion
  5. < 2.05 - Result below detection limit
  6. --- = Analyte not included in analysis.
  7. **BOLD** - Analyte above detection
  8. **Highlight** - Above Michigan Part 201 Criteria
  9. **GRAY** = Not Sampled
  10. NC - No Criteria

**GSU Quarterly Groundwater Sampling Analytical Results**  
**April 2021**  
**Iosco County, Michigan**

Location Well Screen Interval (bgs)			DEQ-CR-MW003			DEQ-CR-MW005						
			-			18 - 23 ft						
Sample Date			GW2010281545RL	GW2101271510SK	GW2104071455RLF	GW1910081505RAP	GW2001221050RAP	GW2004150840RL				
Lab Report			10/28/2020	1/27/2021	4/7/2021	10/8/2019	1/22/2020	4/15/2020				
Michigan Part 201 Drinking Water Criteria			2002372	2102039	2104109	1903623	2000165	2000899				
Compound	Unit		Result	Result	Result	Result	Result	Result				
PFBA	ppt	NC	< 2.01	< 2.01	< 1.99	< 2.05	< 2.05	< 2.03				
PFPeA	ppt	NC	< 2.01	< 2.01	< 1.99	< 2.05	< 2.05	< 2.03				
PFHxA	ppt	<b>400,000</b>	< 2.01	< 2.01	< 1.99	< 2.05	< 2.05	< 2.03				
PFHpA	ppt	NC	< 2.01	< 2.01	< 1.99	< 2.05	< 2.05	< 2.03				
PFOA	ppt	<b>8</b>	< 2.01	< 2.01	< 1.99	< 2.05	< 2.05	< 2.03				
PFNA	ppt	<b>6</b>	< 2.01	< 2.01	< 1.99	< 2.05	< 2.05	< 2.03				
PFDA	ppt	NC	< 2.01	< 2.01	< 1.99	< 2.05	< 2.05	< 2.03				
PFUnDA	ppt	NC	< 2.01	< 2.01	< 1.99	< 2.05	< 2.05	< 2.03				
PFDoDA	ppt	NC	< 2.01	< 2.01	< 1.99	< 2.05	< 2.05	< 2.03				
PFTeDA	ppt	NC	< 2.01	< 2.01	< 1.99	< 2.05	< 2.05	< 2.03				
PFTrDA	ppt	NC	< 2.01	< 2.01	< 1.99	< 2.05	< 2.05	< 2.03				
11Cl-PF3OUdS	ppt	NC	< 2.01	< 2.01	< 1.99	---	< 2.05	< 2.03	Jul 2020	Oct 2020	Jan 2021	Apr 2021
9Cl-PF3ONS	ppt	NC	< 2.01	< 2.01	< 1.99	---	< 2.05	< 2.03				
ADONA	ppt	NC	< 2.01	< 2.01	< 1.99	---	< 2.05	< 2.03				
HFPO-DA	ppt	<b>370</b>	< 2.01	< 2.01	< 1.99	---	< 3.07	< 3.05				
PFDS	ppt	NC	< 2.01	< 2.01	< 1.99	< 2.05	< 2.05	< 2.03				
PFBS	ppt	<b>420</b>	< 2.01	< 2.01	< 1.99	< 2.05	< 2.05	< 2.03				
PFPeS	ppt	NC	< 2.01	< 2.01	< 1.99	< 2.05	< 2.05	< 2.03				
PFHxS	ppt	<b>51</b>	< 2.01	< 2.01	< 1.99	< 2.05	< 2.05	< 2.03				
PFHpS	ppt	NC	< 2.01	< 2.01	< 1.99	< 2.05	< 2.05	< 2.03				
PFOS	ppt	<b>16</b>	< 2.01	< 2.01	< 1.99	< 2.05	< 2.05	< 2.03				
PFNS	ppt	NC	< 2.01	< 2.01	< 1.99	< 2.05	< 2.05	< 2.03				
FOSA	ppt	NC	< 2.01	< 2.01	< 1.99	< 2.05	< 2.05	< 2.03				
4:2 FTS	ppt	NC	< 2.01	< 2.01	< 1.99	< 2.05	< 2.05	< 2.03				
6:2 FTS	ppt	NC	< 2.01	< 2.01	< 1.99	< 2.05	< 2.05	< 2.03				
8:2 FTS	ppt	NC	< 2.01	< 2.01	< 1.99	< 2.05	< 2.05	< 2.03				
NEtFOSAA	ppt	NC	< 2.01	< 2.01	< 1.99	< 2.05	< 2.05	<b>2.24 J</b>				
NMeFOSAA	ppt	NC	< 2.01	< 2.01	< 1.99	< 2.05	< 2.05	< 2.03				
Total PFAS	ppt	NC	ND	ND	ND	ND	ND	<b>2.24</b>				

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  7. **BOLD** - Analyte above detection
  8. **Highlight** - Above Michigan Part 201 Criteria
  9. **GRAY** = Not Sampled
  10. NC - No Criteria

**GSU Quarterly Groundwater Sampling Analytical Results**  
**April 2021**  
**Iosco County, Michigan**

Location			DEQ-CR-MW006							
Well Screen Interval (bgs)			20 - 25 ft							
Sample			GW1910081555RAP	GW2001220950MK	GW2004150945RL	GW2007151005RL	GW2007151005RL-FD	GW2010280930RL	GW2101291030SK	GW2104071350RLF
Sample Date			10/8/2019	1/22/2020	4/15/2020	7/15/2020	7/15/2020	10/28/2020	1/29/2021	4/7/2021
Lab Report			1903623	2000165	2000899	2001522	2001522	2002372	2102040	2104109
Compound	Unit	Michigan Part 201 Drinking Water Criteria	Result	Result	Result	Result	Result	Result	Result	Result
PFBA	ppt	NC	<b>2.22 J</b>	<b>2.71 J</b>	<b>3.17 J</b>	<b>2.46 J</b>	<b>2.13 J</b>	<b>1.45 J</b>	<b>2.28 J</b>	<b>2.64 J</b>
PFPeA	ppt	NC	<b>2.29 J</b>	< 1.99	< 1.99	< 2.07	< 1.92	<b>1.23 J</b>	<b>1.53 J</b>	<b>1.44 J</b>
PFHxA	ppt	<b>400,000</b>	<b>3.03 J</b>	< 1.99	< 1.99	< 2.07	< 1.92	<b>1.21 J</b>	<b>2.51 J, Q</b>	<b>1.91 J, Q</b>
PFHpA	ppt	NC	<b>1.52 J, Q</b>	< 1.99	< 1.99	< 2.07	< 1.92	< 1.99	<b>2.38 J</b>	<b>1.18 J, Q</b>
PFOA	ppt	<b>8</b>	<b>5.64</b>	<b>3.85 J</b>	<b>5.57</b>	<b>3.44 J</b>	<b>3.19 J</b>	<b>3.85 J</b>	<b>8.07</b>	<b>4.48</b>
PFNA	ppt	<b>6</b>	< 2.05	< 1.99	< 1.99	< 2.07	< 1.92	< 1.99	< 2.02	< 2.02
PFDA	ppt	NC	< 2.05	< 1.99	< 1.99	< 2.07	< 1.92	< 1.99	< 2.02	< 2.02
PFUnDA	ppt	NC	< 2.05	< 1.99	< 1.99	< 2.07	< 1.92	< 1.99	< 2.02	< 2.02
PFDoDA	ppt	NC	< 2.05	< 1.99	< 1.99	< 2.07	< 1.92	< 1.99	< 2.02	< 2.02
PFTeDA	ppt	NC	< 2.05	< 1.99	< 1.99	< 2.07	< 1.92	< 1.99	< 2.02	< 2.02
PFTeDA	ppt	NC	< 2.05	< 1.99	< 1.99	< 2.07	< 1.92	< 1.99	< 2.02	< 2.02
11CI-PF3OUdS	ppt	NC	---	< 1.99	< 1.99	< 2.07	< 1.92	< 1.99	< 2.02	< 2.02
9CI-PF3ONS	ppt	NC	---	< 1.99	< 1.99	< 2.07	< 1.92	< 1.99	< 2.02	< 2.02
ADONA	ppt	NC	---	< 1.99	< 1.99	< 2.07	< 1.92	< 1.99	< 2.02	< 2.02
HFPO-DA	ppt	<b>370</b>	---	< 2.99	< 2.99	< 3.11	< 2.87	< 1.99	< 2.02	< 2.02
PFDS	ppt	NC	< 2.05	< 1.99	< 1.99	< 2.07	< 1.92	< 1.99	< 2.02	< 2.02
PFBS	ppt	<b>420</b>	< 2.05	<b>1.66 J</b>	<b>1.94 J</b>	< 2.07	< 1.92	< 1.99	<b>2.19 J</b>	<b>1.73 J</b>
PFPeS	ppt	NC	< 2.05	< 1.99	< 1.99	< 2.07	< 1.92	< 1.99	< 2.02	< 2.02
PFHxS	ppt	<b>51</b>	<b>15.6</b>	<b>12.4</b>	<b>7.55</b>	<b>6.92</b>	<b>6.49</b>	<b>11</b>	<b>21.1</b>	<b>7.2</b>
PFHpS	ppt	NC	< 2.05	< 1.99	< 1.99	< 2.07	< 1.92	< 1.99	< 2.02	< 2.02
PFOS	ppt	<b>16</b>	<b>6.08 Q</b>	<b>7.27</b>	<b>3.79 J</b>	<b>5.96</b>	<b>6.31</b>	<b>9.89</b>	<b>10.9</b>	<b>5.36</b>
PFNS	ppt	NC	< 2.05	< 1.99	< 1.99	< 2.07	< 1.92	< 1.99	< 2.02	< 2.02
FOSA	ppt	NC	< 2.05	< 1.99	< 1.99	< 2.07	< 1.92	< 1.99	< 2.02	< 2.02
4:2 FTS	ppt	NC	< 2.05	< 1.99	< 1.99	< 2.07	< 1.92	< 1.99	< 2.02	< 2.02
6:2 FTS	ppt	NC	< 2.05	< 1.99	< 1.99	< 2.07	< 1.92	< 1.99	< 2.02	< 2.02
8:2 FTS	ppt	NC	< 2.05	< 1.99	< 1.99	< 2.07	< 1.92	< 1.99	< 2.02	< 2.02
NEtFOSAA	ppt	NC	< 2.05	< 1.99	< 1.99	< 2.07	< 1.92	< 1.99	< 2.02	< 2.02
NMeFOSAA	ppt	NC	< 2.05	< 1.99	< 1.99	< 2.07	< 1.92	< 1.99	< 2.02	< 2.02
Total PFAS	ppt	NC	<b>36.38</b>	<b>27.89</b>	<b>22.02</b>	<b>18.78</b>	<b>18.12</b>	<b>28.63</b>	<b>50.96</b>	<b>25.94</b>

Footnotes:

1. bgs - Below ground surface
2. ft = feet
3. ND - Result below detection limit
4. ppt - Parts Per Trillion
5. < 2.05 - Result below detection limit
6. --- = Analyte not included in analysis.
7. **BOLD** - Analyte above detection
8. **Highlight** - Above Michigan Part 201 Criteria
9. **GRAY** = Not Sampled
10. NC - No Criteria

**GSU Quarterly Groundwater Sampling Analytical Results**  
**April 2021**  
**Iosco County, Michigan**

Location			DEQ-LD-MW001				
Well Screen Interval (bgs)			10 - 15 ft				
Sample			GW1910091100RAP	GW2001221215RAP	GW2004151505RSL	GW2007151325RSL	GW2010281300RSL
Sample Date			10/9/2019	1/22/2020	4/15/2020	7/15/2020	10/28/2020
Lab Report			1903623	2000165	2000899	2001522	2002372
Compound	Unit	Michigan Part 201 Drinking Water Criteria	Result	Result	Result	Result	Result
PFBA	ppt	NC	<b>5.93</b>	<b>1.67 J</b>	< 2.04	<b>1.79 J</b>	<b>1.27 J</b>
PFPeA	ppt	NC	<b>4.55</b>	< 2.06	< 2.04	< 1.98	< 1.95
PFHxA	ppt	<b>400,000</b>	<b>6.81</b>	<b>1.66 J</b>	< 2.04	< 1.98	< 1.95
PFHpA	ppt	NC	<b>2.33 J, Q</b>	< 2.06	< 2.04	< 1.98	< 1.95
PFOA	ppt	<b>8</b>	<b>3.44 J</b>	<b>3.12 J</b>	<b>2.56 J</b>	<b>3.24 J</b>	<b>2.03 J</b>
PFNA	ppt	<b>6</b>	< 2.07	< 2.06	< 2.04	< 1.98	< 1.95
PFDA	ppt	NC	< 2.07	< 2.06	< 2.04	< 1.98	< 1.95
PFUnDA	ppt	NC	< 2.07	< 2.06	< 2.04	< 1.98	< 1.95
PFDoDA	ppt	NC	< 2.07	< 2.06	< 2.04	< 1.98	< 1.95
PFTTrDA	ppt	NC	< 2.07	< 2.06	< 2.04	< 1.98	< 1.95
PFTeDA	ppt	NC	< 2.07	< 2.06	< 2.04	< 1.98	< 1.95
11Cl-PF3OUdS	ppt	NC	---	< 2.06	< 2.04	< 1.98	< 1.95
9Cl-PF3ONS	ppt	NC	---	< 2.06	< 2.04	< 1.98	< 1.95
ADONA	ppt	NC	---	< 2.06	< 2.04	< 1.98	< 1.95
HFPO-DA	ppt	<b>370</b>	---	< 3.09	< 3.06	< 2.96	< 1.95
PFDS	ppt	NC	< 2.07	< 2.06	< 2.04	< 1.98	< 1.95
PFBS	ppt	<b>420</b>	<b>3.32 J</b>	<b>2.36 J</b>	<b>2.23 J</b>	<b>2.63 J</b>	<b>2.23 J</b>
PFPeS	ppt	NC	< 2.07	< 2.06	< 2.04	< 1.98	< 1.95
PFHxS	ppt	<b>51</b>	<b>3.33 J</b>	<b>1.82 J</b>	<b>1.71 J</b>	<b>3.53 J</b>	<b>3.33 J</b>
PFHpS	ppt	NC	< 2.07	< 2.06	< 2.04	< 1.98	< 1.95
PFOS	ppt	<b>16</b>	<b>2.05 J, Q</b>	<b>2.66 J</b>	< 2.04	<b>2.26 J</b>	<b>2.76 J</b>
PFNS	ppt	NC	< 2.07	< 2.06	< 2.04	< 1.98	< 1.95
FOSA	ppt	NC	< 2.07	< 2.06	< 2.04	< 1.98	< 1.95
4:2 FTS	ppt	NC	< 2.07	< 2.06	< 2.04	< 1.98	< 1.95
6:2 FTS	ppt	NC	< 2.07	< 2.06	< 2.04	< 1.98	< 1.95
8:2 FTS	ppt	NC	< 2.07	< 2.06	< 2.04	< 1.98	< 1.95
NEtFOSAA	ppt	NC	< 2.07	< 2.06	< 2.04	< 1.98	< 1.95
NMeFOSAA	ppt	NC	< 2.07	< 2.06	< 2.04	< 1.98	< 1.95
Total PFAS	ppt	NC	<b>31.76</b>	<b>13.29</b>	<b>6.5</b>	<b>13.45</b>	<b>11.62</b>

Jan 2021    Apr 2021

- Footnotes:
1. bgs - Below ground surface
  2. ft = feet
  3. ND - Result below detection limit
  4. ppt - Parts Per Trillion
  5. < 2.05 - Result below detection limit
  6. --- = Analyte not included in analysis.
  7. **BOLD** - Analyte above detection
  8. **Highlight** - Above Michigan Part 201 Criteria
  9. **GRAY** = Not Sampled
  10. NC - No Criteria

**GSU Quarterly Groundwater Sampling Analytical Results**  
**April 2021**  
**Iosco County, Michigan**

Location			DEQ-LD-MW003								
Well Screen Interval (bgs)			10 - 15 ft								
Sample			GW1910091215RAP	GW2001221350RAP	GW2004151350RL	FD2004151350RL	GW2007151240RL	GW2010281145RL	FD2010281145RL	GW2101290915SK	GW2104071810RLF
Sample Date			10/9/2019	1/22/2020	4/15/2020	4/15/2020	7/15/2020	10/28/2020	10/28/2020	1/29/2021	4/7/2021
Lab Report			1903623	2000165	2000899	2000899	2001522	2002372	2002372	2102040	2104108
Compound	Unit	Michigan Part 201 Drinking Water Criteria	Result	Result	Result	Result	Result	Result	Result	Result	Result
PFBA	ppt	NC	< 2.17	<b>3.43 J</b>	<b>2.83 J</b>	<b>3.02 J</b>	<b>3.45 J</b>	<b>4.41</b>	<b>4.81</b>	<b>2.77 J</b>	<b>1.14 J</b>
PFPeA	ppt	NC	<b>1.7 J</b>	<b>6.97</b>	<b>4.5</b>	<b>5.25</b>	<b>7.06</b>	<b>16.9</b>	<b>16.6</b>	<b>7.95</b>	<b>2.99 J</b>
PFHxA	ppt	<b>400,000</b>	<b>2.56 J</b>	<b>7.95</b>	<b>4.96</b>	<b>4.59 Q</b>	<b>6.63</b>	<b>14.7</b>	<b>15.9</b>	<b>9.27</b>	<b>3.62 J</b>
PFHpA	ppt	NC	< 2.17	<b>2.22 J</b>	<b>1.72 J, Q</b>	<b>1.58 J, Q</b>	< 2.07	<b>4.37</b>	<b>4.55</b>	<b>2.99 J</b>	<b>1.05 J</b>
PFOA	ppt	<b>8</b>	<b>2.57 J</b>	<b>6.25</b>	<b>4.09</b>	<b>4.68</b>	<b>4.4</b>	<b>11</b>	<b>10.2</b>	<b>10.5</b>	<b>4.21</b>
PFNA	ppt	<b>6</b>	< 2.17	< 2.01	< 2.02	< 2.02	< 2.07	< 2.04	< 1.99	< 2.07	< 2.01
PFDA	ppt	NC	< 2.17	< 2.01	< 2.02	< 2.02	< 2.07	< 2.04	< 1.99	< 2.07	< 2.01
PFUnDA	ppt	NC	< 2.17	< 2.01	< 2.02	< 2.02	< 2.07	< 2.04	< 1.99	< 2.07	< 2.01
PFDaDA	ppt	NC	< 2.17	< 2.01	< 2.02	< 2.02	< 2.07	< 2.04	< 1.99	< 2.07	< 2.01
PFTeDA	ppt	NC	< 2.17	< 2.01	< 2.02	< 2.02	< 2.07	< 2.04	< 1.99	< 2.07	< 2.01
PFTeDA	ppt	NC	< 2.17	< 2.01	< 2.02	< 2.02	< 2.07	< 2.04	< 1.99	< 2.07	< 2.01
11CI-PF3OUdS	ppt	NC	---	< 2.01	< 2.02	< 2.02	< 2.07	< 2.04	< 1.99	< 2.07	< 2.01
9CI-PF3ONS	ppt	NC	---	< 2.01	< 2.02	< 2.02	< 2.07	< 2.04	< 1.99	< 2.07	< 2.01
ADONA	ppt	NC	---	< 2.01	< 2.02	< 2.02	< 2.07	< 2.04	< 1.99	< 2.07	< 2.01
HFPO-DA	ppt	<b>370</b>	---	< 3.01	< 3.02	< 3.02	< 3.10	< 2.04	< 1.99	< 2.07	< 2.01
PFDS	ppt	NC	< 2.17	< 2.01	< 2.02	< 2.02	< 2.07	< 2.04	< 1.99	< 2.07	< 2.01
PFBS	ppt	<b>420</b>	<b>1.66 J</b>	<b>2.73 J</b>	<b>2.3 J</b>	<b>2.64 J, Q</b>	<b>3.29 J</b>	<b>4.45</b>	<b>5.1</b>	<b>4.36</b>	<b>2.81 J</b>
PFPeS	ppt	NC	< 2.17	< 2.01	< 2.02	< 2.02	< 2.07	< 2.04	< 1.99	< 2.07	< 2.01
PFHxS	ppt	<b>51</b>	< 2.17	<b>2.36 J</b>	<b>1.4 J</b>	<b>1.57 J</b>	<b>2.23 J</b>	<b>3.91 J</b>	<b>3.83 J</b>	<b>3.96 J</b>	<b>2.72 J</b>
PFHpS	ppt	NC	< 2.17	< 2.01	< 2.02	< 2.02	< 2.07	< 2.04	< 1.99	< 2.07	< 2.01
PFOS	ppt	<b>16</b>	< 2.17	<b>2.6 J</b>	< 2.02	< 2.02	< 2.07	<b>2.34 J</b>	<b>2.38 J</b>	<b>2.74 J</b>	<b>1.68 J</b>
PFNS	ppt	NC	< 2.17	< 2.01	< 2.02	< 2.02	< 2.07	< 2.04	< 1.99	< 2.07	< 2.01
FOSA	ppt	NC	< 2.17	< 2.01	< 2.02	< 2.02	< 2.07	< 2.04	< 1.99	< 2.07	< 2.01
4:2 FTS	ppt	NC	< 2.17	< 2.01	< 2.02	< 2.02	< 2.07	< 2.04	< 1.99	< 2.07	< 2.01
6:2 FTS	ppt	NC	< 2.17	< 2.01	< 2.02	< 2.02	< 2.07	< 2.04	< 1.99	< 2.07	< 2.01
8:2 FTS	ppt	NC	< 2.17	< 2.01	< 2.02	< 2.02	< 2.07	< 2.04	< 1.99	< 2.07	< 2.01
NEtFOSAA	ppt	NC	< 2.17	< 2.01	< 2.02	< 2.02	< 2.07	< 2.04	< 1.99	< 2.07	< 2.01
NMeFOSAA	ppt	NC	< 2.17	< 2.01	< 2.02	< 2.02	< 2.07	< 2.04	< 1.99	< 2.07	< 2.01
Total PFAS	ppt	NC	<b>8.49</b>	<b>34.51</b>	<b>21.8</b>	<b>23.33</b>	<b>27.06</b>	<b>62.08</b>	<b>63.37</b>	<b>44.54</b>	<b>20.22</b>

Footnotes:  
1. bgs - Below ground surface  
2. ft = feet  
3. ND - Result below detection limit  
4. ppt - Parts Per Trillion  
5. < 2.05 - Result below detection limit  
6. --- = Analyte not included in analysis.  
7. **BOLD** - Analyte above detection  
8. **Highlight** - Above Michigan Part 201 Criteria  
9. **GRAY** = Not Sampled  
10. NC - No Criteria

**GSU Quarterly Groundwater Sampling Analytical Results**  
**April 2021**  
**Iosco County, Michigan**

Location			DEQ-LD-MW005					
Well Screen Interval (bgs)			5 - 10 ft					
Sample			GW1910081710RAP	GW2001221650RAP	GW2004151605RL		GW2101281055SK	GW2104061440RLF
Sample Date			10/8/2019	1/22/2020	4/15/2020		1/28/2021	4/6/2021
Lab Report			1903623	2000166	2000906		2102039	2104109
Compound	Unit	Michigan Part 201 Drinking Water Criteria	Result	Result	Result		Result	Result
PFBA	ppt	NC	<b>14.5</b>	<b>13.1</b>	<b>11.9</b>		<b>9.62</b>	<b>9.65</b>
PFPeA	ppt	NC	< 2.16	< 2.01	< 2.02		<b>2.4 J</b>	<b>1.69 J</b>
PFHxA	ppt	<b>400,000</b>	< 2.16	< 2.01	< 2.02		<b>1.53 J</b>	<b>1.24 J, Q</b>
PFHpA	ppt	NC	< 2.16	< 2.01	< 2.02		< 2.01	< 1.99
PFOA	ppt	<b>8</b>	<b>2.77 J</b>	<b>2.6 J</b>	<b>2.78 J</b>		<b>3.03 J</b>	<b>2.01 J</b>
PFNA	ppt	<b>6</b>	< 2.16	< 2.01	< 2.02		< 2.01	< 1.99
PFDA	ppt	NC	< 2.16	< 2.01	< 2.02		< 2.01	< 1.99
PFUnDA	ppt	NC	< 2.16	< 2.01	< 2.02		< 2.01	< 1.99
PFDoDA	ppt	NC	< 2.16	< 2.01	< 2.02		< 2.01	< 1.99
PFTTrDA	ppt	NC	< 2.16	< 2.01	< 2.02		< 2.01	< 1.99
PFTeDA	ppt	NC	< 2.16	< 2.01	< 2.02		< 2.01	< 1.99
11Cl-PF3OUdS	ppt	NC	---	< 2.01	< 2.02	Jul 2020	< 2.01	< 1.99
9Cl-PF3ONS	ppt	NC	---	< 2.01	< 2.02	Oct 2020	< 2.01	< 1.99
ADONA	ppt	NC	---	< 2.01	< 2.02		< 2.01	< 1.99
HFPO-DA	ppt	<b>370</b>	---	< 3.01	< 3.04		< 2.01	< 1.99
PFDS	ppt	NC	< 2.16	< 2.01	< 2.02		< 2.01	< 1.99
PFBS	ppt	<b>420</b>	<b>9.29</b>	<b>7.79</b>	<b>10.3</b>		<b>7.65</b>	<b>7.52</b>
PFPeS	ppt	NC	< 2.16	< 2.01	< 2.02		< 2.01	< 1.99
PFHxS	ppt	<b>51</b>	<b>4.96</b>	<b>9.49</b>	<b>6.28</b>		<b>8.97</b>	<b>8.71</b>
PFHpS	ppt	NC	< 2.16	< 2.01	< 2.02		< 2.01	< 1.99
PFOS	ppt	<b>16</b>	<b>3.1 J, Q</b>	<b>3.08 J</b>	<b>2.51 J</b>		<b>6.03</b>	<b>4.5</b>
PFNS	ppt	NC	< 2.16	< 2.01	< 2.02		< 2.01	< 1.99
FOSA	ppt	NC	< 2.16	< 2.01	< 2.02		< 2.01	< 1.99
4:2 FTS	ppt	NC	< 2.16	< 2.01	< 2.02		< 2.01	< 1.99
6:2 FTS	ppt	NC	< 2.16	< 2.01	< 2.02		< 2.01	< 1.99
8:2 FTS	ppt	NC	< 2.16	< 2.01	< 2.02		< 2.01	< 1.99
NEtFOSAA	ppt	NC	< 2.16	< 2.01	< 2.02		< 2.01	< 1.99
NMeFOSAA	ppt	NC	< 2.16	< 2.01	< 2.02		< 2.01	< 1.99
Total PFAS	ppt	NC	<b>34.62</b>	<b>36.06</b>	<b>33.77</b>		<b>39.23</b>	<b>35.32</b>

- Footnotes:
1. bgs - Below ground surface
  2. ft = feet
  3. ND - Result below detection limit
  4. ppt - Parts Per Trillion
  5. < 2.05 - Result below detection limit
  6. --- = Analyte not included in analysis.
  7. **BOLD** - Analyte above detection
  8. **Highlight** - Above Michigan Part 201 Criteria
  9. **GRAY** = Not Sampled
  10. NC - No Criteria

**GSU Quarterly Groundwater Sampling Analytical Results**  
**April 2021**  
**Iosco County, Michigan**

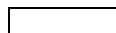
Location			DEQ-RR-MW003			
Well Screen Interval (bgs)			12 - 17 ft			
Sample			GW1910081440GSC	GW2001231315MK	GW2004141105GSC	GW2010291015RL
Sample Date			10/8/2019	1/23/2020	4/14/2020	10/29/2020
Lab Report			1903623	2000166	2000899	2002372
Compound	Unit	Michigan Part 201 Drinking Water Criteria	Result	Result	Result	Result
PFBA	ppt	NC	2.09 J	2.38 J	< 1.99	< 2.03
PFPeA	ppt	NC	< 2.02	< 2.02	< 1.99	< 2.03
PFHxA	ppt	400,000	< 2.02	< 2.02	< 1.99	< 2.03
PFHpA	ppt	NC	< 2.02	< 2.02	< 1.99	< 2.03
PFOA	ppt	8	< 2.02	< 2.02	< 1.99	< 2.03
PFNA	ppt	6	< 2.02	< 2.02	< 1.99	< 2.03
PFDA	ppt	NC	< 2.02	< 2.02	< 1.99	< 2.03
PFUnDA	ppt	NC	< 2.02	< 2.02	< 1.99	< 2.03
PFDoDA	ppt	NC	< 2.02	< 2.02	< 1.99	< 2.03
PFTTrDA	ppt	NC	< 2.02	< 2.02	< 1.99	< 2.03
PFTeDA	ppt	NC	< 2.02	< 2.02	< 1.99	< 2.03
11Cl-PF3OUdS	ppt	NC	---	< 2.02	< 1.99	< 2.03
9Cl-PF3ONS	ppt	NC	---	< 2.02	< 1.99	< 2.03
ADONA	ppt	NC	---	< 2.02	< 1.99	< 2.03
HFPO-DA	ppt	370	---	< 3.02	< 2.99	< 2.03
PFDS	ppt	NC	< 2.02	< 2.02	< 1.99	< 2.03
PFBS	ppt	420	47.6	8.68	< 1.99	2.33 J
PFPeS	ppt	NC	< 2.02	< 2.02	< 1.99	< 2.03
PFHxS	ppt	51	< 2.02	< 2.02	< 1.99	< 2.03
PFHpS	ppt	NC	< 2.02	< 2.02	< 1.99	< 2.03
PFOS	ppt	16	< 2.02	1.87 J	< 1.99	< 2.03
PFNS	ppt	NC	< 2.02	< 2.02	< 1.99	< 2.03
FOSA	ppt	NC	< 2.02	< 2.02	< 1.99	< 2.03
4:2 FTS	ppt	NC	< 2.02	< 2.02	< 1.99	< 2.03
6:2 FTS	ppt	NC	< 2.02	< 2.02	< 1.99	< 2.03
8:2 FTS	ppt	NC	< 2.02	< 2.02	< 1.99	< 2.03
NEtFOSAA	ppt	NC	< 2.02	< 2.02	< 1.99	< 2.03
NMeFOSAA	ppt	NC	< 2.02	< 2.02	< 1.99	< 2.03
Total PFAS	ppt	NC	49.69	12.93	ND	2.33

Jul 2020

Jan 2021

Apr 2021

- Footnotes:
1. bgs - Below ground surface
  2. ft = feet
  3. ND - Result below detection limit
  4. ppt - Parts Per Trillion
  5. < 2.05 - Result below detection limit
  6. --- = Analyte not included in analysis.
  7. **BOLD** - Analyte above detection
  8. **Highlight** - Above Michigan Part 201 Criteria
  9. **GRAY** = Not Sampled
  10. NC - No Criteria





**GSU Quarterly Groundwater Sampling Analytical Results**  
**April 2021**  
**Iosco County, Michigan**

Location			DEQ-RR-MW004						
Well Screen Interval (bgs)			17 - 22 ft						
Sample			GW1910090950GSC	GW2001231225MK	GW2004141140GSC	GW2007151245GSC	GW2010290855RL	GW2101261445GSC	GW2104070950KEM
Sample Date			10/9/2019	1/23/2020	4/14/2020	7/15/2020	10/29/2020	1/26/2021	4/7/2021
Lab Report			1903623	2000166	2000899	2001522	2002372	2102039	2104108
Compound	Unit	Michigan Part 201 Drinking Water Criteria	Result	Result	Result	Result	Result	Result	Result
PFBA	ppt	NC	1.49 J	9.59	6.1	4.05	19.4	11.2	8.65
PFPeA	ppt	NC	< 2.09	2.66 J	3.07 J	1.82 J	8.33	1.32 J	11
PFHxA	ppt	400,000	< 2.09	1.91 J	1.67 J, Q	< 2.01	8.03	< 1.94	11.1
PFHpA	ppt	NC	< 2.09	1.41 J	< 2.03	< 2.01	2.26 J	< 1.94	8.26
PFOA	ppt	8	< 2.09	3.96 J	2.88 J	2 J	2.84 J	1.28 J	8.49
PFNA	ppt	6	< 2.09	< 2.02	< 2.03	< 2.01	< 2.17	< 1.94	< 2.02
PFDA	ppt	NC	< 2.09	< 2.02	< 2.03	< 2.01	< 2.17	< 1.94	< 2.02
PFUnDA	ppt	NC	< 2.09	< 2.02	< 2.03	< 2.01	< 2.17	< 1.94	< 2.02
PFDoDA	ppt	NC	< 2.09	< 2.02	< 2.03	< 2.01	< 2.17	< 1.94	< 2.02
PFTtDA	ppt	NC	< 2.09	< 2.02	< 2.03	< 2.01	< 2.17	< 1.94	< 2.02
PFTeDA	ppt	NC	< 2.09	< 2.02	< 2.03	< 2.01	< 2.17	< 1.94	< 2.02
11Cl-PF3OUdS	ppt	NC	---	< 2.02	< 2.03	< 2.01	< 2.17	< 1.94	< 2.02
9Cl-PF3ONS	ppt	NC	---	< 2.02	< 2.03	< 2.01	< 2.17	< 1.94	< 2.02
ADONA	ppt	NC	---	< 2.02	< 2.03	< 2.01	< 2.17	< 1.94	< 2.02
HFPO-DA	ppt	370	---	< 3.02	< 3.05	< 3.01	< 2.17	< 1.94	< 2.02
PFDS	ppt	NC	< 2.09	< 2.02	< 2.03	< 2.01	< 2.17	< 1.94	< 2.02
PFBS	ppt	420	99.1	103	399	611	194	85.7	121
PFPeS	ppt	NC	< 2.09	< 2.02	< 2.03	< 2.01	< 2.17	< 1.94	< 2.02
PFHxS	ppt	51	< 2.09	2.87 J	1.69 J	< 2.01	4.07 J	2.93 J	2.38 J
PFHpS	ppt	NC	< 2.09	< 2.02	< 2.03	< 2.01	< 2.17	< 1.94	< 2.02
PFOS	ppt	16	11	18.9	27.5	9.86	15.4	15.9	30
PFNS	ppt	NC	< 2.09	< 2.02	< 2.03	< 2.01	< 2.17	< 1.94	< 2.02
FOSA	ppt	NC	< 2.09	< 2.02	< 2.03	< 2.01	< 2.17	< 1.94	< 2.02
4:2 FTS	ppt	NC	< 2.09	< 2.02	< 2.03	< 2.01	< 2.17	< 1.94	< 2.02
6:2 FTS	ppt	NC	< 2.09	< 2.02	< 2.03	< 2.01	< 2.17	< 1.94	< 2.02
8:2 FTS	ppt	NC	< 2.09	< 2.02	< 2.03	< 2.01	< 2.17	< 1.94	< 2.02
NEtFOSAA	ppt	NC	< 2.09	< 2.02	< 2.03	< 2.01	< 2.17	< 1.94	< 2.02
NMeFOSAA	ppt	NC	< 2.09	< 2.02	< 2.03	< 2.01	< 2.17	< 1.94	< 2.02
Total PFAS	ppt	NC	111.59	144.3	441.91	628.73	254.33	118.33	200.88

- Footnotes:
1. bgs - Below ground surface
  2. ft = feet
  3. ND - Result below detection limit
  4. ppt - Parts Per Trillion
  5. < 2.05 - Result below detection limit
  6. --- = Analyte not included in analysis.
  7. **BOLD** - Analyte above detection
  8. **Highlight** - Above Michigan Part 201 Criteria
  9. **GRAY** = Not Sampled
  10. NC - No Criteria

**GSU Quarterly Groundwater Sampling Analytical Results**  
**April 2021**  
**Iosco County, Michigan**

Location			DEQ-RR-MW005						
Well Screen Interval (bgs)			13 - 18 ft						
Sample			GW1910081530GSC	GW2001231425MK	GW2004141340GSC	GW2007151140GSC	GW2010291120RL	GW2101261545GSC	GW2104071040KEM
Sample Date			10/8/2019	1/23/2020	4/14/2020	7/15/2020	10/29/2020	1/26/2021	4/7/2021
Lab Report			1903623	2000166	2000899	2001522	2002372	2102039	2104108
Compound	Unit	Michigan Part 201 Drinking Water Criteria	Result	Result	Result	Result	Result	Result	Result
PFBA	ppt	NC	23.5	7.92	24.1	174	39.8	8.78	30
PFPeA	ppt	NC	22.6	13.1	14.7	502	110	23.6	39
PFHxA	ppt	400,000	13.7	9.27	10.6	215	64	14.1	25.5
PFHpA	ppt	NC	1.62 J	1.99 J, Q	1.93 J, Q	18.7	2.74 J	< 2.02	2.48 J, Q
PFOA	ppt	8	4.36	8.96	5.17	33.7	6.95	3.49 J	4.53
PFNA	ppt	6	< 2.03	< 2.12	< 1.97	6.13	< 2.02	< 2.02	< 2.05
PFDA	ppt	NC	< 2.03	< 2.12	< 1.97	6.86	1.76 J	2.4 J	< 2.05
PFUnDA	ppt	NC	< 2.03	< 2.12	< 1.97	< 2.10	< 2.02	< 2.02	< 2.05
PFDODA	ppt	NC	< 2.03	< 2.12	< 1.97	< 2.10	< 2.02	< 2.02	< 2.05
PFTDA	ppt	NC	< 2.03	< 2.12	< 1.97	< 2.10	< 2.02	< 2.02	< 2.05
PFTeDA	ppt	NC	< 2.03	< 2.12	< 1.97	< 2.10	< 2.02	< 2.02	< 2.05
11CI-PF3OUdS	ppt	NC	---	< 2.12	< 1.97	< 2.10	< 2.02	< 2.02	< 2.05
9CI-PF3ONS	ppt	NC	---	< 2.12	< 1.97	< 2.10	< 2.02	< 2.02	< 2.05
ADONA	ppt	NC	---	< 2.12	< 1.97	< 2.10	< 2.02	< 2.02	< 2.05
HFPO-DA	ppt	370	---	< 3.18	< 2.95	< 3.15	< 2.02	< 2.02	< 2.05
PFDS	ppt	NC	3.16 J	4.32	4.87	11.2 Q	6.18	15.4	10.1
PFBS	ppt	420	328	93.7	357	819	219	103	101
PFPeS	ppt	NC	< 2.03	< 2.12	< 1.97	< 2.10	< 2.02	< 2.02	< 2.05
PFHxS	ppt	51	1.98 J	< 2.12	< 1.97	2.14 J	< 2.02	< 2.02	< 2.05
PFHpS	ppt	NC	< 2.03	< 2.12	< 1.97	< 2.10	< 2.02	< 2.02	< 2.05
PFOS	ppt	16	39.7	46.5	21.3	150	46.2	23.4	12.5
PFNS	ppt	NC	< 2.03	< 2.12	< 1.97	< 2.10	< 2.02	< 2.02	< 2.05
FOSA	ppt	NC	24	12.6	17.1	30.1	38	77.2	25.7
4:2 FTS	ppt	NC	< 2.03	< 2.12	< 1.97	< 2.10	< 2.02	< 2.02	< 2.05
6:2 FTS	ppt	NC	< 2.03	< 2.12	< 1.97	4.93	< 2.02	< 2.02	< 2.05
8:2 FTS	ppt	NC	< 2.03	< 2.12	< 1.97	< 2.10	< 2.02	< 2.02	< 2.05
NEtFOSAA	ppt	NC	< 2.03	3.48 J	5.94	7.63	1.49 J	8.23	3.81 J
NMeFOSAA	ppt	NC	< 2.03	< 2.12	< 1.97	< 2.10	< 2.02	< 2.02	< 2.05
Total PFAS	ppt	NC	462.62	201.84	462.71	1981.39	536.12	279.6	254.62

Footnotes:

1. bgs - Below ground surface
2. ft = feet
3. ND - Result below detection limit
4. ppt - Parts Per Trillion
5. < 2.05 - Result below detection limit
6. --- = Analyte not included in analysis.
7. **BOLD** - Analyte above detection
8. **Highlight** - Above Michigan Part 201 Criteria
9. **GRAY** = Not Sampled
10. NC - No Criteria

**GSU Quarterly Groundwater Sampling Analytical Results**  
**April 2021**  
**Iosco County, Michigan**

Location			DEQ-RR-MW006				Oct 2020	Jan 2021	Apr 2021
Well Screen Interval (bgs)			11 - 16 ft						
Sample			GW1910091040GSC	GW2001231110MK	GW2004141240GSC	GW2007151210GSC			
Sample Date			10/9/2019	1/23/2020	4/14/2020	7/15/2020			
Lab Report			1903623	2000166	2000899	2001522			
Compound	Unit	Michigan Part 201 Drinking Water Criteria	Result	Result	Result	Result			
PFBA	ppt	NC	3.43 J	2.2 J	< 2.06	< 2.07			
PFPeA	ppt	NC	3.36 J	2.73 J	< 2.06	< 2.07			
PFHxA	ppt	400,000	3.1 J	2.52 J	< 2.06	< 2.07			
PFHpA	ppt	NC	< 2.05	< 2.00	< 2.06	< 2.07			
PFOA	ppt	8	1.57 J	1.4 J	< 2.06	< 2.07			
PFNA	ppt	6	< 2.05	< 2.00	< 2.06	< 2.07			
PFDA	ppt	NC	< 2.05	< 2.00	< 2.06	< 2.07			
PFUnDA	ppt	NC	< 2.05	< 2.00	< 2.06	< 2.07			
PFDoDA	ppt	NC	< 2.05	< 2.00	< 2.06	< 2.07			
PFTTrDA	ppt	NC	< 2.05	< 2.00	< 2.06	< 2.07			
PFTeDA	ppt	NC	< 2.05	< 2.00	< 2.06	< 2.07			
11Cl-PF3OUdS	ppt	NC	---	< 2.00	< 2.06	< 2.07			
9Cl-PF3ONS	ppt	NC	---	< 2.00	< 2.06	< 2.07			
ADONA	ppt	NC	---	< 2.00	< 2.06	< 2.07			
HFPO-DA	ppt	370	---	< 3.00	< 3.09	< 3.11			
PFDS	ppt	NC	< 2.05	< 2.00	< 2.06	< 2.07			
PFBS	ppt	420	< 2.05	< 2.00	< 2.06	< 2.07			
PFPeS	ppt	NC	< 2.05	< 2.00	< 2.06	< 2.07			
PFHxS	ppt	51	1.79 J	2.03 J	< 2.06	1.75 J			
PFHpS	ppt	NC	< 2.05	< 2.00	< 2.06	< 2.07			
PFOS	ppt	16	6	8.72	3.36 J	< 2.07			
PFNS	ppt	NC	< 2.05	< 2.00	< 2.06	< 2.07			
FOSA	ppt	NC	< 2.05	< 2.00	< 2.06	< 2.07			
4:2 FTS	ppt	NC	< 2.05	< 2.00	< 2.06	< 2.07			
6:2 FTS	ppt	NC	< 2.05	< 2.00	< 2.06	< 2.07			
8:2 FTS	ppt	NC	< 2.05	< 2.00	< 2.06	< 2.07			
NEtFOSAA	ppt	NC	< 2.05	< 2.00	< 2.06	< 2.07			
NMeFOSAA	ppt	NC	< 2.05	< 2.00	< 2.06	< 2.07			
Total PFAS	ppt	NC	19.25	19.6	3.36	1.75			

- Footnotes:
1. bgs - Below ground surface
  2. ft = feet
  3. ND - Result below detection limit
  4. ppt - Parts Per Trillion
  5. < 2.05 - Result below detection limit
  6. --- = Analyte not included in analysis.
  7. **BOLD** - Analyte above detection
  8. **Highlight** - Above Michigan Part 201 Criteria
  9. **GRAY** = Not Sampled
  10. NC - No Criteria

**GSU Quarterly Groundwater Sampling Analytical Results**  
**April 2021**  
**Iosco County, Michigan**

Location			DEQ-RR-MW007					
Well Screen Interval (bgs)			10 - 15 ft					
Sample			GW1910081655GSC	GW2001231000MK	GW2004141420GSC	GW2007151005GSC	GW2101261635GSC	GW2104071140KEM
Sample Date			10/8/2019	1/23/2020	4/14/2020	7/15/2020	1/26/2021	4/7/2021
Lab Report			1903623	2000166	2000899	2001522	2102039	2104108
Compound	Unit	Michigan Part 201 Drinking Water Criteria	Result	Result	Result	Result	Result	Result
PFBA	ppt	NC	1.66 J	2.48 J	< 1.95	< 2.01	1.07 J	< 1.96
PFPeA	ppt	NC	< 2.12	< 2.11	< 1.95	< 2.01	< 2.03	1.23 J
PFHxA	ppt	400,000	< 2.12	< 2.11	< 1.95	< 2.01	< 2.03	< 1.96
PFHpA	ppt	NC	< 2.12	< 2.11	1.77 J	< 2.01	< 2.03	1.67 J, Q
PFOA	ppt	8	5.65	6.7	6.73	4.18	8.15	13
PFNA	ppt	6	< 2.12	< 2.11	< 1.95	< 2.01	< 2.03	< 1.96
PFDA	ppt	NC	< 2.12	< 2.11	< 1.95	< 2.01	< 2.03	< 1.96
PFUnDA	ppt	NC	< 2.12	< 2.11	< 1.95	< 2.01	< 2.03	< 1.96
PFDoDA	ppt	NC	< 2.12	< 2.11	< 1.95	< 2.01	< 2.03	< 1.96
PFTTrDA	ppt	NC	< 2.12	< 2.11	< 1.95	< 2.01	< 2.03	< 1.96
PFTeDA	ppt	NC	< 2.12	< 2.11	< 1.95	< 2.01	< 2.03	< 1.96
11Cl-PF3OUdS	ppt	NC	---	< 2.11	< 1.95	< 2.01	< 2.03	< 1.96
9Cl-PF3ONS	ppt	NC	---	< 2.11	< 1.95	< 2.01	< 2.03	< 1.96
ADONA	ppt	NC	---	< 2.11	< 1.95	< 2.01	< 2.03	< 1.96
HFPO-DA	ppt	370	---	< 3.16	< 2.93	< 3.01	< 2.03	< 1.96
PFDS	ppt	NC	< 2.12	< 2.11	< 1.95	< 2.01	< 2.03	< 1.96
PFBS	ppt	420	< 2.12	< 2.11	< 1.95	< 2.01	< 2.03	< 1.96
PFPeS	ppt	NC	< 2.12	< 2.11	< 1.95	< 2.01	< 2.03	< 1.96
PFHxS	ppt	51	1.64 J	3.36 J	3.42 J	1.87 J	3.59 J	5.36
PFHpS	ppt	NC	< 2.12	< 2.11	< 1.95	< 2.01	< 2.03	< 1.96
PFOS	ppt	16	41.4	35.9	57.9	39.7	31.7	42.1
PFNS	ppt	NC	< 2.12	< 2.11	< 1.95	< 2.01	< 2.03	< 1.96
FOSA	ppt	NC	< 2.12	< 2.11	< 1.95	< 2.01	< 2.03	< 1.96
4:2 FTS	ppt	NC	< 2.12	< 2.11	< 1.95	< 2.01	< 2.03	< 1.96
6:2 FTS	ppt	NC	< 2.12	< 2.11	< 1.95	< 2.01	< 2.03	< 1.96
8:2 FTS	ppt	NC	< 2.12	< 2.11	< 1.95	< 2.01	< 2.03	< 1.96
NEtFOSAA	ppt	NC	< 2.12	< 2.11	< 1.95	< 2.01	< 2.03	< 1.96
NMeFOSAA	ppt	NC	< 2.12	< 2.11	< 1.95	< 2.01	< 2.03	< 1.96
Total PFAS	ppt	NC	50.35	48.44	69.82	45.75	44.51	63.36

Oct  
2020

- Footnotes:
1. bgs - Below ground surface
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  3. ND - Result below detection limit
  4. ppt - Parts Per Trillion
  5. < 2.05 - Result below detection limit
  6. --- = Analyte not included in analysis.
  7. **BOLD** - Analyte above detection
  8. **Highlight** - Above Michigan Part 201 Criteria
  9. **GRAY** = Not Sampled
  10. NC - No Criteria



**GSU Quarterly Groundwater Sampling Analytical Results**  
**April 2021**  
**Iosco County, Michigan**

Location			RI-MW002						RI-MW003											
Well Screen Interval (bgs)			2 - 7 ft						2 - 7 ft											
Sample			GW2010281745RL						GW1910091430RAP		GW2001221710MK		GW2004151325GSC		GW2007151830RL		GW2101261615SK		GW2104061650RLF	
Sample Date			10/28/2020						10/9/2019		1/22/2020		4/15/2020		7/15/2020		1/26/2021		4/6/2021	
Lab Report			2002372						1903624		2000166		2000899		2001522		2102039		2104109	
Compound	Unit	Michigan Part 201 Drinking Water Criteria	Result						Result		Result		Result		Result		Result			
PFBA	ppt	NC	9.07						8.98		3.04 J		6.27		9.96		2.31 J		2.76 J	
PFPeA	ppt	NC	4.27						7.18		2.02 J		5.77		13.5		1.16 J		2.32 J	
PFHxA	ppt	400,000	3 J						8.7		2.87 J		5.73 Q		15.5		1.4 J		1.69 J	
PFHpA	ppt	NC	1.85 J						2.87 J, Q		< 2.02		1.37 J, Q		3.61 J		< 2.05		< 1.99	
PFOA	ppt	8	2.67 J						8.7		3.54 J		3.45 J		7.42		2.18 J		1.22 J	
PFNA	ppt	6	< 2.07						1.59 J		< 2.02		< 2.00		1.87 J		< 2.05		< 1.99	
PFDA	ppt	NC	< 2.07						< 2.07		< 2.02		< 2.00		< 1.99		< 2.05		< 1.99	
PFUnDA	ppt	NC	< 2.07						< 2.07		< 2.02		< 2.00		< 1.99		< 2.05		< 1.99	
PFDaDA	ppt	NC	< 2.07						< 2.07		< 2.02		< 2.00		< 1.99		< 2.05		< 1.99	
PFTeDA	ppt	NC	< 2.07						< 2.07		< 2.02		< 2.00		< 1.99		< 2.05		< 1.99	
11Cl-PF3OUdS	ppt	NC	Oct 2019	Jan 2020	Apr 2020	Jul 2020	Jan 2021	Apr 2021	---		< 2.02		< 2.00		< 1.99		< 2.05		< 1.99	
9Cl-PF3ONS	ppt	NC	< 2.07						---		< 2.02		< 2.00		< 1.99		< 2.05		< 1.99	
ADONA	ppt	NC	< 2.07						---		< 2.02		< 2.00		< 1.99		< 2.05		< 1.99	
HFPO-DA	ppt	370	< 2.07						---		< 3.02		< 3.00		< 2.99		< 2.05		< 1.99	
PFDS	ppt	NC	< 2.07						< 2.07		< 2.02		< 2.00		< 1.99		< 2.05		< 1.99	
PFBS	ppt	420	1.98 J						3.05 J		< 2.02		2.52 J		3.8 J		< 2.05		< 1.99	
PFPeS	ppt	NC	< 2.07						< 2.07		< 2.02		< 2.00		< 1.99		< 2.05		< 1.99	
PFHxS	ppt	51	1.91 J						4.55		1.45 J		1.66 J		5.17		1.6 J		< 1.99	
PFHpS	ppt	NC	< 2.07						< 2.07		< 2.02		< 2.00		< 1.99		< 2.05		< 1.99	
PFOS	ppt	16	1.43 J						3.75 J		3.76 J		2.26 J		7.6		2.38 J		< 1.99	
PFNS	ppt	NC	< 2.07						< 2.07		< 2.02		< 2.00		< 1.99		< 2.05		< 1.99	
FOSA	ppt	NC	< 2.07						< 2.07		< 2.02		< 2.00		< 1.99		< 2.05		< 1.99	
4:2 FTS	ppt	NC	< 2.07						< 2.07		< 2.02		< 2.00		< 1.99		< 2.05		< 1.99	
6:2 FTS	ppt	NC	< 2.07						< 2.07		< 2.02		< 2.00		< 1.99		< 2.05		< 1.99	
8:2 FTS	ppt	NC	< 2.07						< 2.07		< 2.02		< 2.00		< 1.99		< 2.05		< 1.99	
NEtFOSAA	ppt	NC	< 2.07						< 2.07		< 2.02		< 2.00		< 1.99		< 2.05		< 1.99	
NMeFOSAA	ppt	NC	< 2.07						< 2.07		< 2.02		< 2.00		< 1.99		< 2.05		< 1.99	
Total PFAS	ppt	NC	26.18						49.37		16.68		29.03		68.43		11.03		7.99	

Footnotes:  
1. bgs - Below ground surface  
2. ft = feet  
3. ND - Result below detection limit  
4. ppt - Parts Per Trillion  
5. < 2.05 - Result below detection limit  
6. --- = Analyte not included in analysis.  
7. **BOLD** - Analyte above detection  
8. **Highlight** - Above Michigan Part 201 Criteria  
9. **GRAY** = Not Sampled  
10. NC - No Criteria

**GSU Quarterly Groundwater Sampling Analytical Results**  
**April 2021**  
**Iosco County, Michigan**

Location			RI-MW004				RI-MW005					RI-MW007				RI-MW007														
Well Screen Interval (bgs)			5 - 10 ft				7 - 12 ft					5 - 10 ft				19 - 20 ft														
Sample			GW2007151735RL				GW2101290930KEM					GW2104071625RLF				GW2101271635SK					GW2104071725RLF									
Sample Date			7/15/2020				1/29/2021					4/7/2021				1/27/2021					4/7/2021									
Lab Report			2001522				2102040					2104109				2102039					2104108									
Compound	Unit	Michigan Part 201 Drinking Water Criteria																												
PFBA	ppt	NC																												
PFPeA	ppt	NC																												
PFHxA	ppt	<b>400,000</b>																												
PFHpA	ppt	NC																												
PFOA	ppt	<b>8</b>																												
PFNA	ppt	<b>6</b>																												
PFDA	ppt	NC																												
PFUnDA	ppt	NC																												
PFDaDA	ppt	NC																												
PFTeDA	ppt	NC																												
11CI-PF3OUdS	ppt	NC	Oct 2019	Jan 2020	Apr 2020		Oct 2020	Jan 2021	Apr 2021			Oct 2020				Oct 2019	Jan 2020	Apr 2020	Jul 2020	Oct 2020	Jan 2021 DRY	Apr 2021 DRY				Oct 2019	Jan 2020	Apr 2020	Jul 2020	Oct 2020
9CI-PF3ONS	ppt	NC																												
ADONA	ppt	NC																												
HFPO-DA	ppt	<b>370</b>																												
PFDS	ppt	NC																												
PFBS	ppt	<b>420</b>																												
PFPeS	ppt	NC																												
PFHxS	ppt	<b>51</b>																												
PFHpS	ppt	NC																												
PFOS	ppt	<b>16</b>																												
PFNS	ppt	NC																												
FOSA	ppt	NC																												
4:2 FTS	ppt	NC																												
6:2 FTS	ppt	NC																												
8:2 FTS	ppt	NC																												
NEtFOSAA	ppt	NC																												
NMeFOSAA	ppt	NC																												
Total PFAS	ppt	NC																												

Footnotes:  
1. bgs - Below ground surface  
2. ft = feet  
3. ND - Result below detection limit  
4. ppt - Parts Per Trillion  
5. < 2.05 - Result below detection limit  
6. --- = Analyte not included in analysis.  
7. **BOLD** - Analyte above detection  
8. **Highlight** - Above Michigan Part 201 Criteria  
9. **GRAY** = Not Sampled  
10. NC - No Criteria

**GSU Quarterly Groundwater Sampling Analytical Results**  
**April 2021**  
**Iosco County, Michigan**

Location			RI-MW007						
Well Screen Interval (bgs)			39 - 40 ft						
Sample			GW1910090935RAP	W1910090935RAP-F	GW2001221255MK	GW2001221255MK-FD	GW2004151110GSC	GW2007160910RL	GW2010281335RL
Sample Date			10/9/2019	10/9/2019	1/22/2020	1/22/2020	4/15/2020	7/16/2020	10/28/2020
Lab Report			1903624	1903624	2000165	2000165	2000899	2001523	2002372
Compound	Unit	Michigan Part 201 Drinking Water Criteria	Result	Result	Result	Result	Result	Result	Result
PFBA	ppt	NC	< 2.13	< 2.02	<b>2.59 J</b>	<b>2.68 J</b>	<b>2.31 J</b>	<b>1.81 J</b>	<b>1.89 J</b>
PFPeA	ppt	NC	< 2.13	< 2.02	< 2.08	< 2.07	< 1.99	< 2.00	< 2.00
PFHxA	ppt	<b>400,000</b>	< 2.13	< 2.02	<b>1.76 J</b>	< 2.07	<b>1.52 J, Q</b>	< 2.00	<b>1.79 J, Q</b>
PFHpA	ppt	NC	< 2.13	< 2.02	< 2.08	< 2.07	< 1.99	< 2.00	< 2.00
PFOA	ppt	<b>8</b>	< 2.13	< 2.02	<b>1.9 J</b>	<b>1.74 J</b>	<b>1.73 J</b>	< 2.00	<b>1.41 J</b>
PFNA	ppt	<b>6</b>	< 2.13	< 2.02	< 2.08	< 2.07	< 1.99	< 2.00	< 2.00
PFDA	ppt	NC	< 2.13	< 2.02	< 2.08	< 2.07	< 1.99	< 2.00	< 2.00
PFUnDA	ppt	NC	< 2.13	< 2.02	< 2.08	< 2.07	< 1.99	< 2.00	< 2.00
PFDoDA	ppt	NC	< 2.13	< 2.02	< 2.08	< 2.07	< 1.99	< 2.00	< 2.00
PFTTrDA	ppt	NC	< 2.13	< 2.02	< 2.08	< 2.07	< 1.99	< 2.00	< 2.00
PFTeDA	ppt	NC	< 2.13	< 2.02	< 2.08	< 2.07	< 1.99	< 2.00	< 2.00
11Cl-PF3OUdS	ppt	NC	---	---	< 2.08	< 2.07	< 1.99	< 2.00	< 2.00
9Cl-PF3ONS	ppt	NC	---	---	< 2.08	< 2.07	< 1.99	< 2.00	< 2.00
ADONA	ppt	NC	---	---	< 2.08	< 2.07	< 1.99	< 2.00	< 2.00
HFPO-DA	ppt	<b>370</b>	---	---	< 3.13	< 3.11	< 2.99	< 3.00	< 2.00
PFDS	ppt	NC	< 2.13	< 2.02	< 2.08	< 2.07	< 1.99	< 2.00	< 2.00
PFBS	ppt	<b>420</b>	< 2.13	< 2.02	< 2.08	< 2.07	< 1.99	< 2.00	< 2.00
PFPeS	ppt	NC	< 2.13	< 2.02	< 2.08	< 2.07	< 1.99	< 2.00	< 2.00
PFHxS	ppt	<b>51</b>	<b>3.65 J</b>	<b>3.02 J</b>	<b>5.84</b>	<b>5.64</b>	<b>4.47</b>	<b>3.31 J</b>	<b>3.39 J</b>
PFHpS	ppt	NC	< 2.13	< 2.02	< 2.08	< 2.07	< 1.99	< 2.00	< 2.00
PFOS	ppt	<b>16</b>	< 2.13	< 2.02	< 2.08	< 2.07	< 1.99	< 2.00	< 2.00
PFNS	ppt	NC	< 2.13	< 2.02	< 2.08	< 2.07	< 1.99	< 2.00	< 2.00
FOSA	ppt	NC	< 2.13	< 2.02	< 2.08	< 2.07	< 1.99	< 2.00	< 2.00
4:2 FTS	ppt	NC	< 2.13	< 2.02	< 2.08	< 2.07	< 1.99	< 2.00	< 2.00
6:2 FTS	ppt	NC	< 2.13	< 2.02	< 2.08	< 2.07	< 1.99	< 2.00	< 2.00
8:2 FTS	ppt	NC	< 2.13	< 2.02	< 2.08	< 2.07	< 1.99	< 2.00	< 2.00
NEtFOSAA	ppt	NC	< 2.13	< 2.02	< 2.08	< 2.07	< 1.99	< 2.00	< 2.00
NMeFOSAA	ppt	NC	< 2.13	< 2.02	< 2.08	< 2.07	< 1.99	< 2.00	< 2.00
Total PFAS	ppt	NC	<b>3.65</b>	<b>3.02</b>	<b>12.09</b>	<b>10.06</b>	<b>10.03</b>	<b>5.12</b>	<b>8.48</b>

Jan 2021 Apr 2021

- Footnotes:
1. bgs - Below ground surface
  2. ft = feet
  3. ND - Result below detection limit
  4. ppt - Parts Per Trillion
  5. < 2.05 - Result below detection limit
  6. --- = Analyte not included in analysis.
  7. **BOLD** - Analyte above detection
  8. **Highlight** - Above Michigan Part 201 Criteria
  9. **GRAY** = Not Sampled
  10. NC - No Criteria



**GSU Quarterly Groundwater Sampling Analytical Results**  
**April 2021**  
**Iosco County, Michigan**

Location Well Screen Interval (bgs)			RI-MW008 18 - 19 ft				RI-MW008 27.5 - 28.5 ft						
			GW2010281430RL 10/28/2020 2002372	GW2101261715SK 1/26/2021 2102039	GW2104061745RLF 4/6/2021 2104109	GW1910091525RAP 10/9/2019 1903624	GW2001221500RAP 1/22/2020 2000165	GW2004151005GSC 4/15/2020 2000899	GW2007160945RL 7/16/2020 2001523				
Sample Date	Sample Date	Lab Report	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	
Compound	Unit	Michigan Part 201 Drinking Water Criteria											
PFBA	ppt	NC	1.54 J	1.4 J	1.29 J	1.98 J	3.7 J	1.56 J	1.85 J				
PFPeA	ppt	NC	1.12 J	1.4 J	1.17 J	2.67 J	5.26	4.63	4.37				
PFHxA	ppt	400,000	1.76 J	1.47 J, Q	< 1.97	4.14	10.2	8.88	6.9				
PFHpA	ppt	NC	< 2.04	< 2.00	< 1.97	1.46 J, Q	4.48 Q	4.54	4.19				
PFOA	ppt	8	3.46 J	2.87 J	2.68 J	3.08 J	6.05	4.03	3.95 J				
PFNA	ppt	6	< 2.04	< 2.00	< 1.97	< 2.02	< 1.98	< 1.96	< 2.03				
PFDA	ppt	NC	< 2.04	< 2.00	< 1.97	< 2.02	< 1.98	< 1.96	< 2.03				
PFUnDA	ppt	NC	< 2.04	< 2.00	< 1.97	< 2.02	< 1.98	< 1.96	< 2.03				
PFDODA	ppt	NC	< 2.04	< 2.00	< 1.97	< 2.02	< 1.98	< 1.96	< 2.03				
PFTDA	ppt	NC	< 2.04	< 2.00	< 1.97	< 2.02	< 1.98	< 1.96	< 2.03				
PFTeDA	ppt	NC	< 2.04	< 2.00	< 1.97	< 2.02	< 1.98	< 1.96	< 2.03				
11CI-PF3OUdS	ppt	NC	< 2.04	< 2.00	< 1.97	---	< 1.98	< 1.96	< 2.03				
9CI-PF3ONS	ppt	NC	< 2.04	< 2.00	< 1.97	---	< 1.98	< 1.96	< 2.03				
ADONA	ppt	NC	< 2.04	< 2.00	< 1.97	---	< 1.98	< 1.96	< 2.03				
HFPO-DA	ppt	370	< 2.04	< 2.00	< 1.97	---	< 2.98	< 2.94	< 3.05				
PFDS	ppt	NC	< 2.04	< 2.00	< 1.97	< 2.02	< 1.98	< 1.96	< 2.03				
PFBS	ppt	420	< 2.04	1.18 J, Q	< 1.97	< 2.02	< 1.98	< 1.96	< 2.03				
PFPeS	ppt	NC	< 2.04	< 2.00	< 1.97	< 2.02	1.56 J, Q	1.54 J, Q	< 2.03				
PFHxS	ppt	51	3.79 J	3.69 J	2.28 J	4.22	7.91	7	7.59				
PFHpS	ppt	NC	< 2.04	< 2.00	< 1.97	< 2.02	< 1.98	< 1.96	< 2.03				
PFOS	ppt	16	< 2.04	< 2.00	< 1.97	< 2.02	< 1.98	< 1.96	< 2.03				
PFNS	ppt	NC	< 2.04	< 2.00	< 1.97	< 2.02	< 1.98	< 1.96	< 2.03				
FOSA	ppt	NC	< 2.04	< 2.00	< 1.97	< 2.02	< 1.98	< 1.96	< 2.03				
4:2 FTS	ppt	NC	< 2.04	< 2.00	< 1.97	< 2.02	< 1.98	< 1.96	< 2.03				
6:2 FTS	ppt	NC	< 2.04	< 2.00	< 1.97	< 2.02	< 1.98	< 1.96	< 2.03				
8:2 FTS	ppt	NC	< 2.04	< 2.00	< 1.97	< 2.02	< 1.98	< 1.96	< 2.03				
NEtFOSAA	ppt	NC	< 2.04	< 2.00	< 1.97	< 2.02	< 1.98	< 1.96	< 2.03				
NMeFOSAA	ppt	NC	< 2.04	< 2.00	< 1.97	< 2.02	< 1.98	< 1.96	< 2.03				
Total PFAS	ppt	NC	11.67	12.01	7.42	17.55	39.16	32.18	28.85				

Footnotes:  
1. bgs - Below ground surface  
2. ft = feet  
3. ND - Result below detection limit  
4. ppt - Parts Per Trillion  
5. < 2.05 - Result below detection limit  
6. --- = Analyte not included in analysis.  
7. **BOLD** - Analyte above detection  
8. **Highlight** - Above Michigan Part 201 Criteria  
9. **GRAY** = Not Sampled  
10. NC - No Criteria

**GSU Quarterly Groundwater Sampling Analytical Results**  
**April 2021**  
**Iosco County, Michigan**

Location Well Screen Interval (bgs)			RI-MW009				RI-MW024					
			32 - 33 ft				17 - 18 ft					
Sample Date			GW2101270830SK	GW2104061910RLF	GW1910100900GSC	GW1910100900GSC-FD	GW2004141605GSC	GW2007151400GSC	GW2007151400GSC-FD			
Lab Report			1/27/2021	4/6/2021	10/10/2019	10/10/2019	4/14/2020	7/15/2020	7/15/2020			
Michigan Part 201 Drinking Water Criteria			2102039	2104109	1903624	1903624	2000899	2001522	2001522			
Compound	Unit		Result	Result	Result	Result	Result	Result	Result			
PFBA	ppt	NC	3.3 J	3.69 J	< 2.07	< 2.02	3.55 J	< 1.97	< 2.04			
PFPeA	ppt	NC	3.07 J	2.91 J	< 2.07	< 2.02	1.67 J	< 1.97	< 2.04			
PFHxA	ppt	400,000	3.54 J	4.46	< 2.07	< 2.02	2.55 J, Q	< 1.97	< 2.04			
PFHpA	ppt	NC	< 2.05	1.13 J, Q	< 2.07	< 2.02	< 1.99	< 1.97	< 2.04			
PFOA	ppt	8	1.61 J	1.16 J	2.31 J	2.5 J	3.96 J	1.57 J	< 2.04			
PFNA	ppt	6	< 2.05	< 2.06	< 2.07	< 2.02	< 1.99	< 1.97	< 2.04			
PFDA	ppt	NC	< 2.05	< 2.06	< 2.07	< 2.02	< 1.99	< 1.97	< 2.04			
PFUnDA	ppt	NC	< 2.05	< 2.06	< 2.07	< 2.02	< 1.99	< 1.97	< 2.04			
PFDaDA	ppt	NC	< 2.05	< 2.06	< 2.07	< 2.02	< 1.99	< 1.97	< 2.04			
PFTeDA	ppt	NC	< 2.05	< 2.06	< 2.07	< 2.02	< 1.99	< 1.97	< 2.04			
11Cl-PF3OUdS	ppt	NC	< 2.05	< 2.06	---	---	< 1.99	< 1.97	< 2.04	Oct 2020	Jan 2021	Apr 2021
9Cl-PF3ONS	ppt	NC	< 2.05	< 2.06	---	---	< 1.99	< 1.97	< 2.04			
ADONA	ppt	NC	< 2.05	< 2.06	---	---	< 1.99	< 1.97	< 2.04			
HFPO-DA	ppt	370	< 2.05	< 2.06	---	---	< 2.99	< 2.95	< 3.06			
PFDS	ppt	NC	< 2.05	< 2.06	< 2.07	< 2.02	< 1.99	< 1.97	< 2.04			
PFBS	ppt	420	3.64 J	4.38 Q	8.07	7.91	15.3	5.49	4.5			
PFPeS	ppt	NC	1.65 J, Q	< 2.06	< 2.07	< 2.02	< 1.99	< 1.97	< 2.04			
PFHxS	ppt	51	8.82	9.31	< 2.07	< 2.02	< 1.99	< 1.97	< 2.04			
PFHpS	ppt	NC	< 2.05	< 2.06	< 2.07	< 2.02	< 1.99	< 1.97	< 2.04			
PFOS	ppt	16	< 2.05	< 2.06	< 2.07	< 2.02	< 1.99	< 1.97	< 2.04			
PFNS	ppt	NC	< 2.05	< 2.06	< 2.07	< 2.02	< 1.99	< 1.97	< 2.04			
FOSA	ppt	NC	< 2.05	< 2.06	< 2.07	< 2.02	< 1.99	< 1.97	< 2.04			
4:2 FTS	ppt	NC	< 2.05	< 2.06	< 2.07	< 2.02	< 1.99	< 1.97	< 2.04			
6:2 FTS	ppt	NC	< 2.05	< 2.06	< 2.07	< 2.02	< 1.99	< 1.97	< 2.04			
8:2 FTS	ppt	NC	< 2.05	< 2.06	< 2.07	< 2.02	< 1.99	< 1.97	< 2.04			
NEtFOSAA	ppt	NC	< 2.05	< 2.06	< 2.07	< 2.02	< 1.98	< 1.97	< 2.04			
NMeFOSAA	ppt	NC	< 2.05	< 2.06	< 2.07	< 2.02	< 1.99	< 1.97	< 2.04			
Total PFAS	ppt	NC	25.63	27.04	10.38	10.41	27.03	7.06	4.5			

Footnotes:  
1. bgs - Below ground surface  
2. ft = feet  
3. ND - Result below detection limit  
4. ppt - Parts Per Trillion  
5. < 2.05 - Result below detection limit  
6. --- = Analyte not included in analysis.  
7. **BOLD** - Analyte above detection  
8. **Highlight** - Above Michigan Part 201 Criteria  
9. **GRAY** = Not Sampled  
10. NC - No Criteria

**GSU Quarterly Groundwater Sampling Analytical Results**  
**April 2021**  
**Iosco County, Michigan**

Location			RI-MW024			RI-MW025			
Well Screen Interval (bgs)			26 - 27 ft			5.5 - 10.5 ft			
Sample			GW1910100945GSC	GW2001231215RAP	GW2004141640GSC	GW2007151315GSC			
Sample Date			10/10/2019	1/23/2020	4/14/2020	7/15/2020			
Lab Report			1903624	2000166	2000899	2001522			
Compound	Unit	Michigan Part 201 Drinking Water Criteria	Result	Result	Result	Result			
PFBA	ppt	NC	< 2.02	< 1.96	< 1.99			<b>3.59 J</b>	
PFPeA	ppt	NC	<b>2 J</b>	< 1.96	<b>2.36 J</b>			< 2.07	
PFHxA	ppt	<b>400,000</b>	<b>3.88 J</b>	<b>2.33 J, Q</b>	<b>3.61 J</b>			< 2.07	
PFHpA	ppt	NC	<b>2.04 J, Q</b>	< 1.96	< 1.99			< 2.07	
PFOA	ppt	<b>8</b>	<b>1.65 J</b>	<b>2.77 J</b>	<b>3.07 J</b>			<b>1.83 J</b>	
PFNA	ppt	<b>6</b>	< 2.02	< 1.96	< 1.99			< 2.07	
PFDA	ppt	NC	< 2.02	< 1.96	< 1.99			< 2.07	
PFUnDA	ppt	NC	< 2.02	< 1.96	< 1.99			< 2.07	
PFDaDA	ppt	NC	< 2.02	< 1.96	< 1.99			< 2.07	
PFTeDA	ppt	NC	< 2.02	< 1.96	< 1.99			< 2.07	
11CI-PF3OUdS	ppt	NC	---	< 1.96	< 1.99	Jan 2020	Oct 2020	< 2.07	Oct 2020
9CI-PF3ONS	ppt	NC	---	< 1.96	< 1.99	Jan 2021	Apr 2021	< 2.07	Jan 2021
ADONA	ppt	NC	---	< 1.96	< 1.99			< 2.07	
HFPO-DA	ppt	<b>370</b>	---	< 2.94	< 2.99			< 3.11	
PFDS	ppt	NC	< 2.02	< 1.96	< 1.99			< 2.07	
PFBS	ppt	<b>420</b>	<b>3.98 J</b>	<b>2.69 J</b>	<b>3.74 J, Q</b>			< 2.07	
PFPeS	ppt	NC	< 2.02	< 1.96	< 1.99			< 2.07	
PFHxS	ppt	<b>51</b>	<b>7.07</b>	<b>1.49 J</b>	<b>1.7 J</b>			< 2.07	
PFHpS	ppt	NC	< 2.02	< 1.96	< 1.99			< 2.07	
PFOS	ppt	<b>16</b>	< 2.02	< 1.96	< 1.99			< 2.07	
PFNS	ppt	NC	< 2.02	< 1.96	< 1.99			< 2.07	
FOSA	ppt	NC	< 2.02	< 1.96	< 1.99			< 2.07	
4:2 FTS	ppt	NC	< 2.02	< 1.96	< 1.99			< 2.07	
6:2 FTS	ppt	NC	< 2.02	< 1.96	< 1.99			< 2.07	
8:2 FTS	ppt	NC	< 2.02	< 1.96	< 1.99			< 2.07	
NEtFOSAA	ppt	NC	< 2.02	< 1.96	< 1.99			< 2.07	
NMeFOSAA	ppt	NC	< 2.02	< 1.96	< 1.99			< 2.07	
Total PFAS	ppt	NC	<b>20.62</b>	<b>9.28</b>	<b>14.48</b>			<b>5.42</b>	

- Footnotes:
1. bgs - Below ground surface
  2. ft = feet
  3. ND - Result below detection limit
  4. ppt - Parts Per Trillion
  5. < 2.05 - Result below detection limit
  6. --- = Analyte not included in analysis.
  7. **BOLD** - Analyte above detection
  8. **Highlight** - Above Michigan Part 201 Criteria
  9. **GRAY** = Not Sampled
  10. NC - No Criteria

**GSU Quarterly Groundwater Sampling Analytical Results**  
**April 2021**  
**Iosco County, Michigan**

Location			RI-MW026				RI-MW026									
Well Screen Interval (bgs)			16 - 21 ft				32 - 33 ft									
Sample			GW2010281555CM		GW2001231320RAP		GW2007151440GSC		GW2010281445CM		GW2101270830GSC		GW2101270830GSC-FD		GW2104061910KEM	
Sample Date			10/28/2020		1/23/2020		7/15/2020		10/28/2020		1/27/2021		1/27/2021		4/6/2021	
Lab Report			2002372		2000166		2001522		2002372		2102039		2102039		2104108	
Compound	Unit	Michigan Part 201 Drinking Water Criteria														
			Result		Result		Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
PFBA	ppt	NC	< 2.08		<b>1.85 J</b>		< 2.10	<b>2.22 J</b>	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02
PFPeA	ppt	NC	< 2.08		<b>5.01</b>		<b>2.52 J</b>	<b>5.56</b>	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	<b>2.05 J</b>	< 2.02
PFHxA	ppt	<b>400,000</b>	< 2.08		<b>5.25</b>		<b>2.94 J</b>	<b>5.66</b>	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	<b>1.84 J</b>	< 2.02
PFHpA	ppt	NC	< 2.08		<b>5.43</b>		<b>3.35 J</b>	<b>2.84 J</b>	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	<b>2.05 J</b>	< 2.02
PFOA	ppt	<b>8</b>	< 2.08		<b>16.8</b>		<b>12.9</b>	<b>11</b>	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	<b>9.28</b>	< 2.02
PFNA	ppt	<b>6</b>	< 2.08		< 1.99		< 2.10	< 2.04	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02
PFDA	ppt	NC	< 2.08		< 1.99		< 2.10	< 2.04	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02
PFUnDA	ppt	NC	< 2.08		< 1.99		< 2.10	< 2.04	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02
PFDaDA	ppt	NC	< 2.08		< 1.99		< 2.10	< 2.04	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02
PFTeDA	ppt	NC	< 2.08		< 1.99		< 2.10	< 2.04	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02
PFTA	ppt	NC	< 2.08		< 1.99		< 2.10	< 2.04	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02
11CI-PF3OUdS	ppt	NC	< 2.08		< 1.99		< 2.10	< 2.04	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02
9CI-PF3ONS	ppt	NC	< 2.08		< 1.99		< 2.10	< 2.04	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02
ADONA	ppt	NC	< 2.08		< 1.99		< 2.10	< 2.04	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02
HFPO-DA	ppt	<b>370</b>	< 2.08		< 2.99		< 3.15	< 2.04	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02
PFDS	ppt	NC	< 2.08		< 1.99		< 2.10	< 2.04	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02
PFBS	ppt	<b>420</b>	< 2.08		< 1.99		< 2.10	< 2.04	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02
PFPeS	ppt	NC	< 2.08		< 1.99		< 2.10	< 2.04	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02
PFHxS	ppt	<b>51</b>	< 2.08		<b>6.64</b>		<b>4.15 J</b>	<b>4.52</b>	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	<b>3.11 J</b>	< 2.02
PFHpS	ppt	NC	< 2.08		< 1.99		< 2.10	< 2.04	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02
PFOS	ppt	<b>16</b>	< 2.08		< 1.99		< 2.10	< 2.04	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02
PFNS	ppt	NC	< 2.08		< 1.99		< 2.10	< 2.04	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02
FOSA	ppt	NC	< 2.08		< 1.99		< 2.10	< 2.04	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02
4:2 FTS	ppt	NC	< 2.08		< 1.99		< 2.10	< 2.04	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02
6:2 FTS	ppt	NC	< 2.08		< 1.99		< 2.10	< 2.04	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02
8:2 FTS	ppt	NC	< 2.08		< 1.99		< 2.10	< 2.04	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02
NEtFOSAA	ppt	NC	< 2.08		< 1.99		< 2.10	< 2.04	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02
NMeFOSAA	ppt	NC	< 2.08		< 1.99		< 2.10	< 2.04	< 1.98	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02
Total PFAS	ppt	NC	ND		<b>40.98</b>		<b>25.86</b>	<b>31.8</b>	ND	ND	<b>18.33</b>	ND	ND	<b>18.33</b>	ND	ND

Footnotes:  
1. bgs - Below ground surface  
2. ft = feet  
3. ND - Result below detection limit  
4. ppt - Parts Per Trillion  
5. < 2.05 - Result below detection limit  
6. --- = Analyte not included in analysis.  
7. **BOLD** - Analyte above detection  
8. **Highlight** - Above Michigan Part 201 Criteria  
9. **GRAY** = Not Sampled  
10. NC - No Criteria

**GSU Quarterly Groundwater Sampling Analytical Results**  
**April 2021**  
**Iosco County, Michigan**

Location			RI-MW026					RI-MW027					RI-MW027						
Well Screen Interval (bgs)			45 - 46 ft					20 - 21 ft					34.5 - 35.3 ft						
Sample			GW2101270925GSC		GW2104062000KEM			GW2010281140CM					GW2010281250CM						
Sample Date			1/27/2021		4/6/2021			10/28/2020					10/28/2020						
Lab Report			2102039		2104108			2002372					2002372						
Compound	Unit	Michigan Part 201 Drinking Water Criteria																	
PFBA	ppt	NC																	
PFPeA	ppt	NC																	
PFHxA	ppt	<b>400,000</b>																	
PFHpA	ppt	NC																	
PFOA	ppt	<b>8</b>																	
PFNA	ppt	<b>6</b>																	
PFDA	ppt	NC																	
PFUnDA	ppt	NC																	
PFDaDA	ppt	NC																	
PFTTrDA	ppt	NC																	
PFTeDA	ppt	NC																	
11Cl-PF3OUdS	ppt	NC	Oct 2019	Jan 2020	Apr 2020	Jul 2020	Oct 2020												
9Cl-PF3ONS	ppt	NC																	
ADONA	ppt	NC																	
HFPO-DA	ppt	<b>370</b>																	
PFDS	ppt	NC																	
PFBS	ppt	<b>420</b>																	
PFPeS	ppt	NC																	
PFHxS	ppt	<b>51</b>																	
PFHpS	ppt	NC																	
PFOS	ppt	<b>16</b>																	
PFNS	ppt	NC																	
FOSA	ppt	NC																	
4:2 FTS	ppt	NC																	
6:2 FTS	ppt	NC																	
8:2 FTS	ppt	NC																	
NEtFOSAA	ppt	NC																	
NMeFOSAA	ppt	NC																	
Total PFAS	ppt	NC																	

Footnotes:  
1. bgs - Below ground surface  
2. ft = feet  
3. ND - Result below detection limit  
4. ppt - Parts Per Trillion  
5. < 2.05 - Result below detection limit  
6. --- = Analyte not included in analysis.  
7. **BOLD** - Analyte above detection  
8. **Highlight** - Above Michigan Part 201 Criteria  
9. **GRAY** = Not Sampled  
10. NC - No Criteria

**GSU Quarterly Groundwater Sampling Analytical Results**  
**April 2021**  
**Iosco County, Michigan**

Location Well Screen Interval (bgs)			RI-MW028				RI-MW028				
			5 - 10 ft				20 - 21 ft				
Sample Date			GW2007151515GSC	GW2010281735CM	GW2101271030GSC	GW2104061725KEM	GW2010291115CM				
Lab Report			7/15/2020	10/28/2020	1/27/2021	4/6/2021	10/29/2020				
Michigan Part 201 Drinking Water Criteria			2001522	2002372	2102039	2104108	2002372				
Compound	Unit		Result	Result	Result	Result	Result				
PFBA	ppt	NC	< 2.03	< 2.07	< 1.96	< 1.98	< 2.07				
PFPeA	ppt	NC	< 2.03	< 2.07	< 1.96	< 1.98	< 2.07				
PFHxA	ppt	<b>400,000</b>	< 2.03	< 2.07	< 1.96	< 1.98	< 2.07				
PFHpA	ppt	NC	<b>1.77 J</b>	< 2.07	< 1.96	< 1.98	< 2.07				
PFOA	ppt	<b>8</b>	<b>2.34 J</b>	< 2.07	< 1.96	< 1.98	< 2.07				
PFNA	ppt	<b>6</b>	< 2.03	< 2.07	< 1.96	< 1.98	< 2.07				
PFDA	ppt	NC	< 2.03	< 2.07	< 1.96	< 1.98	< 2.07				
PFUnDA	ppt	NC	< 2.03	< 2.07	< 1.96	< 1.98	< 2.07				
PFDoDA	ppt	NC	< 2.03	< 2.07	< 1.96	< 1.98	< 2.07				
PFTeDA	ppt	NC	< 2.03	< 2.07	< 1.96	< 1.98	< 2.07				
PFTrDA	ppt	NC	< 2.03	< 2.07	< 1.96	< 1.98	< 2.07				
11Cl-PF3OUdS	ppt	NC	< 2.03	< 2.07	< 1.96	< 1.98	< 2.07				
9Cl-PF3ONS	ppt	NC	< 2.03	< 2.07	< 1.96	< 1.98	< 2.07				
ADONA	ppt	NC	< 2.03	< 2.07	< 1.96	< 1.98	< 2.07				
HFPO-DA	ppt	<b>370</b>	< 3.05	< 2.07	< 1.96	< 1.98	< 2.07				
PFDS	ppt	NC	< 2.03	< 2.07	< 1.96	< 1.98	< 2.07				
PFBS	ppt	<b>420</b>	< 2.03	<b>1.67 J</b>	< 1.96	< 1.98	< 2.07				
PFPeS	ppt	NC	< 2.03	< 2.07	< 1.96	< 1.98	< 2.07				
PFHxS	ppt	<b>51</b>	<b>10.5</b>	<b>5.99</b>	<b>6.17</b>	<b>6.2</b>	< 2.07				
PFHpS	ppt	NC	< 2.03	< 2.07	< 1.96	< 1.98	< 2.07				
PFOS	ppt	<b>16</b>	<b>7.39</b>	<b>7.95</b>	<b>6.63</b>	<b>7.15</b>	< 2.07				
PFNS	ppt	NC	< 2.03	< 2.07	< 1.96	< 1.98	< 2.07				
FOSA	ppt	NC	< 2.03	< 2.07	< 1.96	< 1.98	< 2.07				
4:2 FTS	ppt	NC	< 2.03	< 2.07	< 1.96	< 1.98	< 2.07				
6:2 FTS	ppt	NC	< 2.03	< 2.07	< 1.96	< 1.98	< 2.07				
8:2 FTS	ppt	NC	< 2.03	< 2.07	< 1.96	< 1.98	< 2.07				
NEtFOSAA	ppt	NC	< 2.03	< 2.07	< 1.96	< 1.98	< 2.07				
NMeFOSAA	ppt	NC	< 2.03	< 2.07	< 1.96	< 1.98	< 2.07				
Total PFAS	ppt	NC	<b>22</b>	<b>15.61</b>	<b>12.8</b>	<b>13.35</b>	ND				

- Footnotes:
1. bgs - Below ground surface
  2. ft = feet
  3. ND - Result below detection limit
  4. ppt - Parts Per Trillion
  5. < 2.05 - Result below detection limit
  6. --- = Analyte not included in analysis.
  7. **BOLD** - Analyte above detection
  8. **Highlight** - Above Michigan Part 201 Criteria
  9. **GRAY** = Not Sampled
  10. NC - No Criteria

**GSU Quarterly Groundwater Sampling Analytical Results**  
**April 2021**  
**Iosco County, Michigan**

Location			RI-MW030						
Well Screen Interval (bgs)			24 - 25 ft						
Sample			GW1910101025RAP	GW2001230915RAP	GW2004141735GSC				
Sample Date			10/10/2019	1/23/2020	4/14/2020				
Lab Report			1903624	2000166	2000899				
Compound	Unit	Michigan Part 201 Drinking Water Criteria	Result	Result	Result				
PFBA	ppt	NC	< 2.28	<b>4.77</b>	<b>4.33</b>				
PFPeA	ppt	NC	< 2.28	< 2.05	< 2.08				
PFHxA	ppt	<b>400,000</b>	< 2.28	< 2.05	< 2.08				
PFHpA	ppt	NC	< 2.28	< 2.05	< 2.08				
PFOA	ppt	<b>8</b>	< 2.28	< 2.05	< 2.08				
PFNA	ppt	<b>6</b>	< 2.28	< 2.05	< 2.08				
PFDA	ppt	NC	< 2.28	< 2.05	< 2.08				
PFUnDA	ppt	NC	< 2.28	< 2.05	< 2.08				
PFDoDA	ppt	NC	< 2.28	< 2.05	< 2.08				
PFTTrDA	ppt	NC	< 2.28	< 2.05	< 2.08				
PFTeDA	ppt	NC	< 2.28	< 2.05	< 2.08				
11Cl-PF3OUdS	ppt	NC	---	< 2.05	< 2.08	Jul 2020	Oct 2020	Jan 2021	Apr 2021
9Cl-PF3ONS	ppt	NC	---	< 2.05	< 2.08				
ADONA	ppt	NC	---	< 2.05	< 2.08				
HFPO-DA	ppt	<b>370</b>	---	< 3.07	< 3.13				
PFDS	ppt	NC	< 2.28	< 2.05	< 2.08				
PFBS	ppt	<b>420</b>	< 2.28	< 2.05	< 2.08				
PFPeS	ppt	NC	< 2.28	< 2.05	< 2.08				
PFHxS	ppt	<b>51</b>	< 2.28	< 2.05	< 2.08				
PFHpS	ppt	NC	< 2.28	< 2.05	< 2.08				
PFOS	ppt	<b>16</b>	< 2.28	<b>2.27 J</b>	< 2.08				
PFNS	ppt	NC	< 2.28	< 2.05	< 2.08				
FOSA	ppt	NC	< 2.28	< 2.05	< 2.08				
4:2 FTS	ppt	NC	< 2.28	< 2.05	< 2.08				
6:2 FTS	ppt	NC	< 2.28	< 2.05	< 2.08				
8:2 FTS	ppt	NC	< 2.28	< 2.05	< 2.08				
NEtFOSAA	ppt	NC	< 2.28	< 2.05	< 2.08				
NMeFOSAA	ppt	NC	< 2.28	< 2.05	< 2.08				
Total PFAS	ppt	NC	ND	<b>7.04</b>	<b>4.33</b>				

- Footnotes:
1. bgs - Below ground surface
  2. ft = feet
  3. ND - Result below detection limit
  4. ppt - Parts Per Trillion
  5. < 2.05 - Result below detection limit
  6. --- = Analyte not included in analysis.
  7. **BOLD** - Analyte above detection
  8. **Highlight** - Above Michigan Part 201 Criteria
  9. **GRAY** = Not Sampled
  10. NC - No Criteria

**GSU Quarterly Groundwater Sampling Analytical Results**  
**April 2021**  
**Iosco County, Michigan**

Location			RI-MW032						
Well Screen Interval (bgs)			18 - 23 ft						
Sample			GW1910091630RAP	GW2001221530MK	GW2004150915GSC	GW2007151700GSC	GW2010291335CM	GW2101270930SK	GW2104071620KEM
Sample Date			10/9/2019	1/22/2020	4/15/2020	7/15/2020	10/29/2020	1/27/2021	4/7/2021
Lab Report			1903624	2000166	2000899	2001522	2002372	2102039	2104108
Compound	Unit	Michigan Part 201 Drinking Water Criteria	Result	Result	Result	Result	Result	Result	Result
PFBA	ppt	NC	6.72	8.18	5.64	8.09	9.46	8.83	8.05
PFPeA	ppt	NC	9.72	15.1	11.2	13	16.8	20.1	15.7
PFHxA	ppt	400,000	13.4	20.4	19.2	20.3	26.5	30.2	24.2
PFHpA	ppt	NC	3.87 J	5.84	6.59	8.73	12.7	15.9	15.4
PFOA	ppt	8	11.3	15.9	17.9	19.8	22.4	25.1	19.3
PFNA	ppt	6	< 2.16	< 2.04	< 2.02	< 2.07	< 1.98	< 1.98	< 2.01
PFDA	ppt	NC	< 2.16	< 2.04	< 2.02	< 2.07	< 1.98	< 1.98	< 2.01
PFUnDA	ppt	NC	< 2.16	< 2.04	< 2.02	< 2.07	< 1.98	< 1.98	< 2.01
PFDaDA	ppt	NC	< 2.16	< 2.04	< 2.02	< 2.07	< 1.98	< 1.98	< 2.01
PFTeDA	ppt	NC	< 2.16	< 2.04	< 2.02	< 2.07	< 1.98	< 1.98	< 2.01
PFTeDA	ppt	NC	< 2.16	< 2.04	< 2.02	< 2.07	< 1.98	< 1.98	< 2.01
11Cl-PF3OUdS	ppt	NC	---	< 2.04	< 2.02	< 2.07	< 1.98	< 1.98	< 2.01
9Cl-PF3ONS	ppt	NC	---	< 2.04	< 2.02	< 2.07	< 1.98	< 1.98	< 2.01
ADONA	ppt	NC	---	< 2.04	< 2.02	< 2.07	< 1.98	< 1.98	< 2.01
HFPO-DA	ppt	370	---	< 3.06	< 3.02	< 3.10	< 1.98	< 1.98	< 2.01
PFDS	ppt	NC	< 2.16	< 2.04	< 2.02	< 2.07	< 1.98	< 1.98	< 2.01
PFBS	ppt	420	23.8	27.6	23.8	25.6	31.3	33.1	23
PFPeS	ppt	NC	1.52 J	3.38 J	2.92 J	3.13 J	3.51 J	4.34	2.51 J
PFHxS	ppt	51	44.3	75.2	71.6	88.3	83.7	103	82.4
PFHpS	ppt	NC	< 2.16	< 2.04	< 2.02	< 2.07	< 1.98	< 1.98	< 2.01
PFOS	ppt	16	1.96 J, Q	3.21 J	< 2.02	2.15 J	2.76 J	5.21	2.48 J
PFNS	ppt	NC	< 2.16	< 2.04	< 2.02	< 2.07	< 1.98	< 1.98	< 2.01
FOSA	ppt	NC	< 2.16	< 2.04	< 2.02	< 2.07	< 1.98	< 1.98	< 2.01
4:2 FTS	ppt	NC	< 2.16	< 2.04	< 2.02	< 2.07	< 1.98	< 1.98	< 2.01
6:2 FTS	ppt	NC	< 2.16	< 2.04	< 2.02	< 2.07	< 1.98	< 1.98	< 2.01
8:2 FTS	ppt	NC	< 2.16	< 2.04	< 2.02	< 2.07	< 1.98	< 1.98	< 2.01
NEtFOSAA	ppt	NC	< 2.16	< 2.04	< 2.02	< 2.07	< 1.98	< 1.98	< 2.01
NMeFOSAA	ppt	NC	< 2.16	< 2.04	< 2.02	< 2.07	< 1.98	< 1.98	< 2.01
Total PFAS	ppt	NC	116.59	174.81	158.85	189.1	209.13	245.78	193.04

- Footnotes:
1. bgs - Below ground surface
  2. ft = feet
  3. ND - Result below detection limit
  4. ppt - Parts Per Trillion
  5. < 2.05 - Result below detection limit
  6. --- = Analyte not included in analysis.
  7. **BOLD** - Analyte above detection
  8. **Highlight** - Above Michigan Part 201 Criteria
  9. **GRAY** = Not Sampled
  10. NC - No Criteria



**GSU Quarterly Groundwater Sampling Analytical Results**  
**April 2021**  
**Iosco County, Michigan**

Location			RI-MW032					RI-MW033				
Well Screen Interval (bgs)			29 - 30 ft					13 - 18 ft				
Sample			GW2101271010SK	GW2104071700KEM	GW1910100915RAP	GW2001221440MK	GW2004150830GSC	GW2007151730GSC	GW2010291430CM	GW2101271100SK	GW2104071450KEM	
Sample Date			1/27/2021	4/7/2021	10/10/2019	1/22/2020	4/15/2020	7/15/2020	10/29/2020	1/27/2021	4/7/2021	
Lab Report			2102039	2104108	1903624	2000165	2000899	2001522	2002372	2102039	2104108	
Compound	Unit	Michigan Part 201 Drinking Water Criteria	Result	Result	Result	Result	Result	Result	Result	Result	Result	
PFBA	ppt	NC	7.15	5.32	2.43 J	5.68	6.51	3.45 J	1.76 J	<2.03	< 2.04	
PFPeA	ppt	NC	6.14	5.63	1.51 J	< 2.02	1.85 J	3.42 J	1.75 J	1.05 J	< 2.04	
PFHxA	ppt	400,000	7.13	7.44	1.53 J	1.9 J, Q	5.91	4.71	3.19 J, Q	1.14 J, Q	< 2.04	
PFHpA	ppt	NC	1.8 J, Q	2.33 J, Q	< 2.09	1.68 J	3.3 J	4.68	3.62 J	2.09 J	1.15 J	
PFOA	ppt	8	5.29	9.51	8.14	10.6	14	17	19.1	10.40	5.78	
PFNA	ppt	6	< 2.01	< 1.95	< 2.09	< 2.02	< 1.98	< 2.05	< 2.07	<2.03	< 2.04	
PFDA	ppt	NC	< 2.01	< 1.95	< 2.09	< 2.02	< 1.98	< 2.05	< 2.07	<2.03	< 2.04	
PFUnDA	ppt	NC	< 2.01	< 1.95	< 2.09	< 2.02	< 1.98	< 2.05	< 2.07	<2.03	< 2.04	
PFDoDA	ppt	NC	< 2.01	< 1.95	< 2.09	< 2.02	< 1.98	< 2.05	< 2.07	<2.03	< 2.04	
PFTeDA	ppt	NC	< 2.01	< 1.95	< 2.09	< 2.02	< 1.98	< 2.05	< 2.07	<2.03	< 2.04	
11Cl-PF3OUdS	ppt	NC	< 2.01	< 1.95	---	< 2.02	< 1.98	< 2.05	< 2.07	<2.03	< 2.04	
9Cl-PF3ONS	ppt	NC	< 2.01	< 1.95	---	< 2.02	< 1.98	< 2.05	< 2.07	<2.03	< 2.04	
ADONA	ppt	NC	< 2.01	< 1.95	---	< 2.02	< 1.98	< 2.05	< 2.07	<2.03	< 2.04	
HFPO-DA	ppt	370	< 2.01	< 1.95	---	< 3.02	< 2.96	< 3.07	< 2.07	<2.03	< 2.04	
PFDS	ppt	NC	< 2.01	< 1.95	< 2.09	< 2.02	< 1.98	< 2.05	< 2.07	<2.03	< 2.04	
PFBS	ppt	420	19.8	16.7	3.35 J	2.61 J	6.11	2.97 J	4.69	3.04 J	4.12	
PFPeS	ppt	NC	1.35 J	2.16 J	< 2.09	< 2.02	< 1.98	< 2.05	< 2.07	<2.03	< 2.04	
PFHxS	ppt	51	13	36.7	35.9	26.5	22.8	22.3	39.8	23.60	21.3	
PFHpS	ppt	NC	< 2.01	< 1.95	< 2.09	< 2.02	< 1.98	< 2.05	< 2.07	<2.03	< 2.04	
PFOS	ppt	16	< 2.01	< 1.95	3.86 J	4.96	< 1.98	4.28	5.21	4.11	3.32 J	
PFNS	ppt	NC	< 2.01	< 1.95	< 2.09	< 2.02	< 1.98	< 2.05	< 2.07	<2.03	< 2.04	
FOSA	ppt	NC	< 2.01	< 1.95	< 2.09	< 2.02	< 1.98	< 2.05	< 2.07	<2.03	< 2.04	
4:2 FTS	ppt	NC	< 2.01	< 1.95	< 2.09	< 2.02	< 1.98	< 2.05	< 2.07	<2.03	< 2.04	
6:2 FTS	ppt	NC	< 2.01	< 1.95	< 2.09	< 2.02	< 1.98	< 2.05	< 2.07	<2.03	< 2.04	
8:2 FTS	ppt	NC	< 2.01	< 1.95	< 2.09	< 2.02	< 1.98	< 2.05	< 2.07	<2.03	< 2.04	
NEtFOSAA	ppt	NC	< 2.01	< 1.95	< 2.09	< 2.02	< 1.98	< 2.05	< 2.07	<2.03	< 2.04	
NMeFOSAA	ppt	NC	< 2.01	< 1.95	< 2.09	< 2.02	< 1.98	< 2.05	< 2.07	<2.03	< 2.04	
Total PFAS	ppt	NC	61.66	85.79	56.72	53.93	60.48	62.81	79.12	45.43	35.67	

Footnotes:  
1. bgs - Below ground surface  
2. ft = feet  
3. ND - Result below detection limit  
4. ppt - Parts Per Trillion  
5. < 2.05 - Result below detection limit  
6. --- = Analyte not included in analysis.  
7. **BOLD** - Analyte above detection  
8. **Highlight** - Above Michigan Part 201 Criteria  
9. **GRAY** = Not Sampled  
10. NC - No Criteria

**GSU Quarterly Groundwater Sampling Analytical Results**  
**April 2021**  
**Iosco County, Michigan**

Location Well Screen Interval (bgs)			RI-MW033					RI-MW034				
			27.5 - 28.5 ft					7.5 - 12.5 ft				
Sample			GW2101271130SK		GW2104071530KEM			GW2007151800GSC		GW2101271310SK		GW2104071330KEM
Sample Date			1/27/2021		4/7/2021			7/15/2020		1/27/2021		4/7/2021
Lab Report			2102039		2104108			2001522		2102039		2104108
Compound	Unit	Michigan Part 201 Drinking Water Criteria										
					Result	Result	Result	Result	Result	Result	Result	Result
PFBA	ppt	NC			< 2.03	< 1.99	<b>1.88 J</b>	<b>2.44 J</b>	<b>1.79 J</b>			
PFPeA	ppt	NC			< 2.03	< 1.99	< 2.02	< 2.05	< 2.07			
PFHxA	ppt	<b>400,000</b>			< 2.03	< 1.99	< 2.02	< 2.05	< 2.07			
PFHpA	ppt	NC			< 2.03	< 1.99	< 2.02	< 2.05	< 2.07			
PFOA	ppt	<b>8</b>			< 2.03	< 1.99	< 2.02	< 2.05	< 2.07			
PFNA	ppt	<b>6</b>			< 2.03	< 1.99	< 2.02	< 2.05	< 2.07			
PFDA	ppt	NC			< 2.03	< 1.99	< 2.02	< 2.05	< 2.07			
PFUnDA	ppt	NC			< 2.03	< 1.99	< 2.02	< 2.05	< 2.07			
PFDaDA	ppt	NC			< 2.03	< 1.99	< 2.02	< 2.05	< 2.07			
PFTeDA	ppt	NC			< 2.03	< 1.99	< 2.02	< 2.05	< 2.07			
PFTeDA	ppt	NC			< 2.03	< 1.99	< 2.02	< 2.05	< 2.07			
11Cl-PF3OUdS	ppt	NC	Oct 2019	Jan 2020	Apr 2020	Jul 2020	Oct 2020	Oct 2019	Jan 2020	Apr 2020	Oct 2020	
9Cl-PF3ONS	ppt	NC			< 2.03	< 1.99	< 2.02	< 2.05	< 2.07			
ADONA	ppt	NC			< 2.03	< 1.99	< 2.02	< 2.05	< 2.07			
HFPO-DA	ppt	<b>370</b>			< 2.03	< 1.99	< 3.02	< 2.05	< 2.07			
PFDS	ppt	NC			< 2.03	< 1.99	< 2.02	< 2.05	< 2.07			
PFBS	ppt	<b>420</b>			< 2.03	< 1.99	<b>1.79 J</b>	<b>1.64 J</b>	<b>1.29 J</b>			
PFPeS	ppt	NC			< 2.03	< 1.99	< 2.02	< 2.05	< 2.07			
PFHxS	ppt	<b>51</b>			<b>1.43 J</b>	<b>1.28 J</b>	<b>2.65 J</b>	<b>3.04 J</b>	<b>2.46 J</b>			
PFHpS	ppt	NC			< 2.03	< 1.99	< 2.02	< 2.05	< 2.07			
PFOS	ppt	<b>16</b>			< 2.03	< 1.99	<b>3.37 J</b>	<b>1.2 J</b>	<b>1.53 J</b>			
PFNS	ppt	NC			< 2.03	< 1.99	< 2.02	< 2.05	< 2.07			
FOSA	ppt	NC			< 2.03	< 1.99	< 2.02	< 2.05	< 2.07			
4:2 FTS	ppt	NC			< 2.03	< 1.99	< 2.02	< 2.05	< 2.07			
6:2 FTS	ppt	NC			< 2.03	< 1.99	< 2.02	< 2.05	< 2.07			
8:2 FTS	ppt	NC			< 2.03	< 1.99	< 2.02	< 2.05	< 2.07			
NEtFOSAA	ppt	NC			< 2.03	< 1.99	< 2.02	< 2.05	< 2.07			
NMeFOSAA	ppt	NC			< 2.03	< 1.99	< 2.02	< 2.05	< 2.07			
Total PFAS	ppt	NC			<b>1.43</b>	<b>1.28</b>	<b>9.69</b>	<b>8.32</b>	<b>7.07</b>			

Footnotes:  
1. bgs - Below ground surface  
2. ft = feet  
3. ND - Result below detection limit  
4. ppt - Parts Per Trillion  
5. < 2.05 - Result below detection limit  
6. --- = Analyte not included in analysis.  
7. **BOLD** - Analyte above detection  
8. **Highlight** - Above Michigan Part 201 Criteria  
9. **GRAY** = Not Sampled  
10. NC - No Criteria

**GSU Quarterly Groundwater Sampling Analytical Results**  
**April 2021**  
**Iosco County, Michigan**

Location			RI-MW035						RI-MW036					
Well Screen Interval (bgs)			30 - 31 ft						45 - 46 ft					
Sample														
Sample Date														
Lab Report														
Compound	Unit	Michigan Part 201 Drinking Water Criteria												
PFBA	ppt	NC												
PFPeA	ppt	NC												
PFHxA	ppt	<b>400,000</b>												
PFHpA	ppt	NC												
PFOA	ppt	<b>8</b>												
PFNA	ppt	<b>6</b>												
PFDA	ppt	NC												
PFUnDA	ppt	NC												
PFDoDA	ppt	NC												
PFTTrDA	ppt	NC												
PFTeDA	ppt	NC												
11Cl-PF3OUdS	ppt	NC	Oct 2019	Jan 2020	Apr 2020	Jul 2020	Oct 2020	Jan 2021						
9Cl-PF3ONS	ppt	NC												
ADONA	ppt	NC												
HFPO-DA	ppt	<b>370</b>												
PFDS	ppt	NC												
PFBS	ppt	<b>420</b>												
PFPeS	ppt	NC												
PFHxS	ppt	<b>51</b>												
PFHpS	ppt	NC												
PFOS	ppt	<b>16</b>												
PFNS	ppt	NC												
FOSA	ppt	NC												
4:2 FTS	ppt	NC												
6:2 FTS	ppt	NC												
8:2 FTS	ppt	NC												
NEtFOSAA	ppt	NC												
NMeFOSAA	ppt	NC												
Total PFAS	ppt	NC												

Footnotes:  
1. bgs - Below ground surface  
2. ft = feet  
3. ND - Result below detection limit  
4. ppt - Parts Per Trillion  
5. < 2.05 - Result below detection limit  
6. --- = Analyte not included in analysis.  
7. **BOLD** - Analyte above detection  
8. **Highlight** - Above Michigan Part 201 Criteria  
9. **GRAY** = Not Sampled  
10. NC - No Criteria