

October 18, 2019

Shelly Billingsley, MBA, PE  
Director of Public Works  
City of Kenosha  
625 52nd Street, Room 305  
Kenosha, WI 53140

**Subject: August 2019 Groundwater Sampling Summary  
Former Gas Station, 704 75th, Kenosha, Wisconsin  
BRRTS # 03-30-532981**

Dear Ms. Billingsley,

AECOM conducted the third of four groundwater sampling events on August 14, 2019 as part of the quarterly groundwater monitoring plan for 2019 at the former gas station located at 704 75<sup>th</sup> St in Kenosha, WI (Property). The sampling was conducted as described in Task Order 136-011619 for the City of Kenosha (authorized January 24, 2019). The purpose of this letter is to transmit the results of the August 2019 sampling event.

Site History

The Property is approximately 0.35 acres located at 704 75<sup>th</sup> Street, at the intersection of 75<sup>th</sup> Street and 7<sup>th</sup> Avenue in Kenosha, WI. The Property was formerly a gas station and convenience store. The Property is bordered to the north and west by residential properties, to the south across 75<sup>th</sup> Street by a convenience store, and to the east across 7<sup>th</sup> Avenue by a dentist office. The site location is depicted in Figure 1.

The Property previously had five underground storage tanks (USTs), one was removed in 2001 and the remaining four were removed in 2014. Following the tank removals, a site investigation was performed and a report dated November 2018 described the results of soil and groundwater sampling. Petroleum impact to soil above residual contaminant levels (RCLs) was observed at the water table (9-10' bgs [below ground surface]) but was not found in shallower soil samples (0-4' bgs). Additionally, petroleum impacts were detected in groundwater above the PAL (preventative action limit). Groundwater monitoring is being conducted to further evaluate the identified groundwater impact.

Groundwater Sampling

During the August 2019 sampling event, all four of the groundwater monitoring wells were sampled. The observation well (TP-OBS) located near the east Property boundary was not sampled during this time. Figure 2 depicts the site layout and monitoring well locations.

Prior to sample collection, depth to groundwater measurements were collected from the monitoring wells. Depth to groundwater measurements and calculated elevations are provided in Table 1. Groundwater samples were then collected from the monitoring wells using a new disposable bailer at each location. Wells were purged dry (3-5 gallons) and allowed to recover prior to sampling. Purge water was disposed in a local sanitary sewer. Field parameters, including pH, conductivity, oxygen reducing potential, dissolved oxygen, and temperature, were measured directly at the time the well was sampled. The field parameter measurements are included in Table 2.

Groundwater samples from the 4 wells were submitted to Pace Analytical Services, Inc. (Pace), in Green Bay, Wisconsin, and analyzed for volatile organic compounds (VOCs - SW846 Method 8260B) and polycyclic aromatic hydrocarbons (PAHs - SW846 Method 8270C SIM).

## Groundwater Results

Contoured groundwater elevations from the August 2019 measurements depict groundwater flow to the east-southeast toward Lake Michigan (Figure 3). The observed flow direction remains consistent with the flow direction determined by AECOM in prior sampling events.

The groundwater analytical results were compared to Wisconsin Administrative Code Ch. NR 140.10, Table 1, Public Health Groundwater Quality Standards, and are summarized in Table 3 and depicted on Figure 4. Laboratory analytical reports are also attached.

Groundwater analytical concentrations detected in the August 2019 sampling event are lower than the February and May 2019 detected groundwater concentrations. Preventive Action Limit (PAL) or Enforcement Standard (ES) exceedances were not detected in monitoring wells MW-1, MW-3 or MW-4. MW-4 had a PAL and an ES exceedance in February 2019 that were no longer detected in May or August 2019. Down gradient well MW-2 had the fewer PAL and ES exceedances compared to earlier in 2019, and all detected analytes decreased significantly. The only ES exceedance in August 2019 was benzene in MW-2 and the only PAL exceedance was methyl-tert-butyl ether (MTBE) in MW-2.

## Conclusions

The overall groundwater plume appears to be decreasing although there was still an ES and PAL exceedance in one of the four monitoring wells (MW-2). Further evaluation will be conducted with the next groundwater sampling event to confirm the decreasing trend.

Please contact us if you have questions about this letter.

Yours sincerely,

**AECOM Technical Services, Inc.**



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In conformance with NR 712.09 submittal certification requirements:

"I, Lanette Altenbach, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code, or licensed in accordance with the requirements of ch. GHSS 3, Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."



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## Attachments

### Tables

Table 1 – Groundwater Measurements and Elevations

Table 2 – Measured Field Parameters in Groundwater

Table 3 – Detected VOCs in Groundwater

Table 4 – Detected PAHs in Groundwater

### Figures

Figure 1 – Site Location

Figure 2 – Site Layout

Figure 3 – Water Table Contour Map – August 2019

Figure 4 – Groundwater Analytical Summary Exceedances – August 2019

Laboratory Analytical Report

Cc: Lee Delcore, WDNR Project Manager

**Table 1**  
**Groundwater Measurements and Elevations**  
**704 75th Street, Kenosha, Wisconsin**

Well Number	MW-1		MW-2		MW-3		MW-4		TP-OBS	
Ground Elevation (ft)	607.60		607.36		609.06		610.54		606.83	
Top of PVC Casing (TOC) Elevation (ft)	607.03		606.80		608.66		610.1		607.03	
Top of Screen Elevation (ft)	600.32		599.89		602.2		603.25		--	
Screen Length (ft)	10		10		10		10		--	
TOC to Bottom of Well (ft) <sup>A</sup>	16.71		16.91		16.46		16.85		12.76	
Date	Depth to GW from TOC (ft)	Groundwater Elevation (ft)	Depth to GW from TOC (ft)	Groundwater Elevation (ft)	Depth to GW from TOC (ft)	Groundwater Elevation (ft)	Depth to GW from TOC (ft)	Groundwater Elevation (ft)	Depth to GW from TOC (ft)	Groundwater Elevation (ft)
8/9/2018	9.85	597.18	9.75	597.05	10.46	598.20	9.92	600.18	9.22	597.81
2/13/2019	9.12	597.91	9.51	597.29	10.05	598.61	7.90	602.20	NM	--
5/23/2019	8.94	598.09	9.17	597.63	9.81	598.85	8.78	601.32	8.51	598.52
8/14/2019	10.27	596.76	9.84	596.96	10.61	598.05	10.58	599.52	9.47	597.56

NOTES:

ft = feet

<sup>A</sup> = as measured inside well

-- No Elevation

**Table 2**  
**Measured Field Parameters in Groundwater**  
**704 75th Street, Kenosha, Wisconsin**

Well Name	Sample Date	pH Units	Dissolved Oxygen (mg/l)	ORP (Millivolts)	Conductivity (ms/cm)	Temperature (° Celcius)	Groundwater Elevation (feet msl)
<b>MW-1</b>	8/9/2018	7.14	7.08	201.10	1.128	20.98	597.18
	2/13/2019	6.19	11.6	30.70	0.692	8.67	597.91
	5/23/2019	6.79	7.22	101.1	0.738	20.49	598.09
	8/14/2019	7.05	5.04	93.6	0.588	17.38	596.76
<b>MW-2</b>	8/9/2018	6.55	5.85	159.90	1.073	21.45	597.05
	2/13/2019	6.61	9.16	26.50	0.875	7.39	597.29
	5/23/2019	7.15	7.31	94.40	0.960	20.91	597.63
	8/14/2019	7.17	6.03	95.90	0.720	20.25	596.96
<b>MW-3</b>	8/9/2018	6.90	6.64	140.60	0.607	20.74	598.20
	2/13/2019	6.59	10.02	32.00	0.377	6.46	598.61
	5/23/2019	6.56	7.15	110.60	0.521	18.71	598.85
	8/14/2019	6.85	6.33	112.40	0.419	18.49	598.05
<b>MW-4</b>	8/9/2018	7.33	6.81	124.20	0.503	25.53	600.18
	2/13/2019	5.78	9.36	81.70	0.220	5.91	602.20
	5/23/2019	6.30	6.92	91.90	0.308	23.24	601.32
	8/14/2019	7.34	6.46	85.00	0.459	17.73	599.52

mg/l = milligrams per liter

ms/cm - microsiemens per centimeter

msl = mean seal level

° = degrees

**Table 3**  
**Detected Volatile Organic Compounds in Groundwater**  
**704 75th Street, Kenosha, Wisconsin**

Field ID	Sample Date	1,2,4-Trimethyl benzene (ug/L)	1,3,5-Trimethyl benzene (ug/L)	Benzene (ug/L)	sec-Butyl benzene (ug/L)	Bromo dichloro methane (ug/L)	Bromo methane (ug/L)	Chloroform (ug/L)	Chloro methane (ug/L)	Ethylbenzene (ug/L)	Isopropyl benzene (Cumene) (ug/L)	p-Isopropyl toluene (ug/L)	Methyl-tert-butyl ether (ug/L)	Naphthalene (ug/L)	n-Propyl benzene (ug/L)	Toluene (ug/L)	Total Xylenes (ug/L)
MW-1	8/9/2018	< 0.84	< 0.87	< 0.25	< 0.85	< 0.36	<u>2.2</u> <sup>J</sup>	< 1.3	<b>34.7</b>	< 0.22	< 0.39	< 0.80	< 1.2	< 1.2	< 0.81	< 0.17	< 1.5
MW-1	2/15/2019	< 0.84	< 0.87	< 0.25	< 0.85	< 0.36	< 0.97	< 1.3	< 2.2	< 0.22	< 0.39	< 0.80	< 1.2	< 1.2	< 0.81	< 0.17	< 1.5
MW-1	5/23/2019	< 0.84	< 0.87	< 0.25	< 0.85	< 0.36	< 0.97	< 1.3	< 2.2	< 0.22	< 0.39	< 0.80	< 1.2	< 1.2	< 0.81	< 0.17	< 1.5
MW-1	8/14/2019	< 0.84	< 0.87	< 0.25	< 0.85	< 0.36	< 0.97	< 1.3	< 2.2	< 0.22	< 0.39	< 0.80	< 1.2	< 1.2	< 0.81	< 0.17	< 1.5
MW-2	8/9/2018	<b>8.2</b>	<u>1.5</u> <sup>J</sup>	<u>3.3</u>	< 0.85	< 0.36	<u>2.4</u> <sup>J</sup>	< 1.3	<b>44.6</b>	<b>4.8</b>	<u>2.1</u> <sup>J</sup>	< 0.80	<u>17.4</u>	<u>3.0</u> <sup>J</sup>	<u>1.2</u> <sup>J</sup>	< 0.17	<b>6.4</b>
MW-2	2/15/2019	<u>344</u>	<u>42.2</u>	<b>30.0</b>	<u>2.1</u> <sup>J</sup>	< 0.36	< 0.97	< 1.3	< 2.2	<u>206</u>	<u>66.5</u>	<u>1.1</u> <sup>J</sup>	<u>18.9</u>	<u>98.5</u>	<u>103</u>	<u>0.48</u> <sup>J</sup>	<u>692</u>
MW-2	5/23/2019	<u>248</u>	<u>37.1</u>	<b>17.1</b>	<u>1.8</u> <sup>J</sup>	< 0.36	< 0.97	< 1.3	< 2.2	<u>185</u>	<u>49.8</u>	<u>1.0</u> <sup>J</sup>	<u>18.3</u>	<u>77.9</u>	<u>87.4</u>	<u>0.26</u> <sup>J</sup>	<u>624</u>
MW-2	8/14/2019	< 0.84	< 0.87	<b>5.6</b>	< 0.85	< 0.36	< 0.97	< 1.3	< 2.2	<u>0.27</u> <sup>J</sup>	<u>0.47</u> <sup>J</sup>	< 0.80	<u>19.5</u>	< 1.2	<u>0.94</u> <sup>J</sup>	< 0.17	< 1.5
MW-3	8/9/2018	< 0.84	< 0.87	< 0.25	< 0.85	< 0.36	<u>2.4</u> <sup>J</sup>	< 1.3	<b>39.1</b>	< 0.22	< 0.39	< 0.80	< 1.2	< 1.2	< 0.81	< 0.17	< 1.5
MW-3	2/15/2019	< 0.84	< 0.87	< 0.25	< 0.85	< 0.36	< 0.97	< 1.3	< 2.2	< 0.22	< 0.39	< 0.80	< 1.2	< 1.2	< 0.81	< 0.17	< 1.5
MW-3	5/23/2019	< 0.84	< 0.87	< 0.25	< 0.85	< 0.36	< 0.97	< 1.3	< 2.2	< 0.22	< 0.39	< 0.80	< 1.2	< 1.2	< 0.81	< 0.17	< 1.5
MW-3	8/14/2019	< 0.84	< 0.87	< 0.25	< 0.85	< 0.36	< 0.97	< 1.3	< 2.2	< 0.22	< 0.39	< 0.80	< 1.2	< 1.2	< 0.81	< 0.17	< 1.5
MW-4	8/9/2018	< 0.84	< 0.87	< 0.25	< 0.85	<u>0.58</u> <sup>J</sup>	< 0.97	<u>3.0</u> <sup>J</sup>	<u>25.5</u>	< 0.22	< 0.39	< 0.80	< 1.2	< 1.2	< 0.81	< 0.17	< 1.5
MW-4	2/15/2019	< 0.84	< 0.87	< 0.25	< 0.85	<b>0.94</b> <sup>J</sup>	< 0.97	<u>4.2</u> <sup>J</sup>	< 2.2	< 0.22	< 0.39	< 0.80	< 1.2	< 1.2	< 0.81	< 0.17	< 1.5
MW-4	5/23/2019	< 0.84	< 0.87	< 0.25	< 0.85	< 0.36	< 0.97	< 1.3	< 2.2	< 0.22	< 0.39	< 0.80	< 1.2	< 1.2	< 0.81	< 0.17	< 1.5
MW-4	8/14/2019	< 0.84	< 0.87	< 0.25	< 0.85	< 0.36	< 0.97	< 1.3	< 2.2	< 0.22	< 0.39	< 0.80	< 1.2	< 1.2	< 0.81	< 0.17	< 1.5
MW-4 DUP	8/9/2018	< 0.84	< 0.87	< 0.25	< 0.85	<u>0.51</u> <sup>J</sup>	<u>1.6</u> <sup>J</sup>	<u>3.0</u> <sup>J</sup>	<b>71.2</b>	< 0.22	< 0.39	< 0.80	< 1.2	< 1.2	< 0.81	< 0.17	< 1.5
MW-4 DUP	2/15/2019	< 0.84	< 0.87	< 0.25	< 0.85	<b>0.86</b> <sup>J</sup>	< 0.97	<u>4.1</u> <sup>J</sup>	< 2.2	< 0.22	< 0.39	< 0.80	< 1.2	< 1.2	< 0.81	< 0.17	< 1.5
MW-4 DUP	5/23/2019	< 0.84	< 0.87	< 0.25	< 0.85	< 0.36	< 0.97	< 1.3	< 2.2	< 0.22	< 0.39	< 0.80	< 1.2	< 1.2	< 0.81	< 0.17	< 1.5
MW-4 DUP	8/14/2019	< 0.84	< 0.87	< 0.25	< 0.85	< 0.36	< 0.97	< 1.3	< 2.2	< 0.22	< 0.39	< 0.80	< 1.2	< 1.2	< 0.81	< 0.17	< 1.5
<b>PAL:</b>		96 <sup>a</sup>		0.5	--	0.06	1	0.6	3	140	--	--	12	10	--	160	400
<b>ES:</b>		480 <sup>a</sup>		5	--	0.6	10	6	30	700	--	--	60	100	--	800	2,000

Notes:

ug/L = micrograms per liter

<sup>J</sup> = Estimated value

PAL - Preventive Action Limit, Wisconsin Administrative Code NR 140.10 Table 1, February 2017 exceedances are underlined italics.

ES - Enforcement Standard, Wisconsin Administrative Code NR 140.10 Table 1, February 2017 exceedances are **bold**.

<sup>a</sup> PAL and ES are for 1,2,4- and 1,3,5-trimethylbenzenes combined

**Table 4**  
**Polycyclic Aromatic Hydrocarbons in Groundwater**  
**704 75th Street, Kenosha, Wisconsin**

Location/ Field ID	Sample Date	1-Methyl naphthalene (ug/L)	2-Methyl naphthalene (ug/L)	Ace- naphthene (ug/L)	Ace- naphthylene (ug/L)	Anthracene (ug/L)	Benzo(a) anthracene (ug/L)	Benzo(a) pyrene (ug/L)	Benzo(b) fluoranthene (ug/L)	Benzo (g,h,i) perylene (ug/L)	Benzo(k) fluoranthene (ug/L)	Chrysene (ug/L)	Dibenz (a,h) anthracene (ug/L)	Fluoranthene (ug/L)	Fluorene (ug/L)	Indeno (1,2,3-cd) pyrene (ug/L)	Naphthalene (ug/L)	Phenanthrene (ug/L)	Pyrene (ug/L)
MW-1	8/9/2018	0.0082 <sup>Jb</sup>	0.0077 <sup>Jb</sup>	< 0.0060	< 0.0049	< 0.010	< 0.0074	< 0.010	< 0.0056	< 0.0066	< 0.0074	< 0.013	< 0.0098	< 0.010	< 0.0078	< 0.017	< 0.018	0.022 <sup>Jb</sup>	< 0.0075
MW-1	2/15/2019	0.0065 <sup>J</sup>	0.0063 <sup>J</sup>	< 0.0055	< 0.0045	< 0.0094	< 0.0068	< 0.0095	0.0060 <sup>J</sup>	< 0.0061	< 0.0068	< 0.012	< 0.0090	0.015 <sup>J</sup>	< 0.0072	< 0.016	< 0.017	0.022 <sup>J</sup>	0.014 <sup>J</sup>
MW-1	5/23/2019	< 0.0063	< 0.0053	< 0.0065	< 0.0054	< 0.011	< 0.0081	< 0.011	< 0.0062	< 0.0073	< 0.0081	< 0.014	< 0.011	< 0.011	< 0.0086	< 0.019	< 0.020	< 0.015	< 0.0082
MW-1	8/14/2019	< 0.0066	< 0.0055	< 0.0068	< 0.0056	< 0.012	< 0.0085	< 0.012	< 0.0064	< 0.0076	< 0.0085	< 0.015	< 0.011	< 0.012	< 0.0090	< 0.020	< 0.021	< 0.015	< 0.0086
MW-2	8/9/2018	0.048 <sup>b</sup>	0.026 <sup>b</sup>	< 0.0061	< 0.0050	< 0.010	< 0.0076	< 0.011	< 0.0057	< 0.0068	< 0.0076	< 0.013	< 0.010	< 0.011	< 0.0080	< 0.018	0.065 <sup>Jb</sup>	0.058 <sup>Jb</sup>	< 0.0076
MW-2	2/15/2019	5.0	1.1	0.013 <sup>J</sup>	< 0.0045	0.047 <sup>J</sup>	0.016 <sup>J</sup>	< 0.0096	0.015 <sup>J</sup>	< 0.0062	0.0078 <sup>J</sup>	0.026 <sup>J</sup>	< 0.0091	0.064	0.013 <sup>J</sup>	< 0.016	<u>27.0</u>	0.027 <sup>J</sup>	0.060
MW-2	5/23/2019	13.5	4.6	< 0.13	< 0.11	< 0.23	< 0.17	< 0.23	< 0.13	< 0.15	< 0.17	< 0.29	< 0.22	< 0.23	< 0.18	< 0.39	<u>80.3</u>	< 0.30	< 0.17
MW-2	8/14/2019	0.024 <sup>J</sup>	0.027 <sup>J</sup>	< 0.0075	< 0.0061	< 0.013	< 0.0093	< 0.013	< 0.0071	< 0.0084	< 0.0093	< 0.016	< 0.012	< 0.013	< 0.0098	< 0.022	< 0.023	< 0.017	< 0.0094
MW-3	8/9/2018	< 0.0059	< 0.0049	< 0.0061	< 0.0050	< 0.010	< 0.0076	< 0.011	< 0.0057	< 0.0068	< 0.0076	< 0.013	< 0.010	< 0.011	< 0.0080	< 0.018	< 0.018	0.014 <sup>Jb</sup>	< 0.0076
MW-3	2/15/2019	< 0.0054	< 0.0045	< 0.0056	< 0.0046	< 0.0096	< 0.0069	< 0.0097	0.012 <sup>J</sup>	0.0093 <sup>J</sup>	0.0081 <sup>J</sup>	0.017 <sup>J</sup>	< 0.0092	0.025 <sup>J</sup>	< 0.0073	< 0.016	< 0.017	0.026 <sup>J</sup>	0.026 <sup>J</sup>
MW-3	5/23/2019	< 0.0059	< 0.0049	< 0.0061	< 0.0050	< 0.010	< 0.0076	< 0.011	< 0.0057	< 0.0068	< 0.0076	< 0.013	< 0.010	< 0.011	< 0.0080	< 0.018	< 0.018	< 0.014	< 0.0076
MW-3	8/14/2019	< 0.0066	< 0.0055	< 0.0068	< 0.0056	< 0.012	< 0.0085	< 0.012	< 0.0064	< 0.0076	< 0.0085	< 0.015	< 0.011	< 0.012	< 0.0090	< 0.020	< 0.021	< 0.015	< 0.0086
MW-4	8/9/2018	< 0.0055	< 0.0045	< 0.0056	< 0.0046	< 0.0097	< 0.0070	< 0.0098	< 0.0053	< 0.0063	< 0.0070	< 0.012	< 0.0093	< 0.0099	< 0.0074	< 0.016	< 0.017	< 0.013	< 0.0071
MW-4	2/15/2019	0.0073 <sup>J</sup>	0.0071 <sup>J</sup>	< 0.0055	< 0.0045	< 0.0094	< 0.0068	< 0.0095	< 0.0052	< 0.0061	< 0.0068	< 0.012	< 0.0090	< 0.0096	< 0.0072	< 0.016	< 0.017	0.013 <sup>J</sup>	< 0.0069
MW-4	5/23/2019	< 0.0062	< 0.0052	< 0.0064	< 0.0052	< 0.011	< 0.0079	< 0.011	< 0.0060	< 0.0071	0.0088 <sup>J</sup>	< 0.014	< 0.011	< 0.011	< 0.0084	< 0.019	< 0.019	< 0.015	< 0.0081
MW-4	8/14/2019	< 0.0064	< 0.0053	< 0.0066	< 0.0054	< 0.011	0.015 <sup>J</sup>	< 0.011	0.013 <sup>J</sup>	0.011 <sup>J</sup>	0.012 <sup>J</sup>	< 0.014	< 0.011	< 0.012	< 0.0087	< 0.019	< 0.020	< 0.015	0.010 <sup>J</sup>
MW-4 DUP	8/9/2018	< 0.0057	< 0.0048	< 0.0059	< 0.0048	< 0.010	< 0.0073	< 0.010	< 0.0056	< 0.0066	< 0.0073	< 0.013	< 0.0097	< 0.010	< 0.0077	< 0.017	< 0.018	< 0.013	< 0.0074
MW-4 DUP	2/15/2019	< 0.0053	< 0.0044	< 0.0055	< 0.0045	< 0.0094	< 0.0068	< 0.0095	< 0.0052	< 0.0061	< 0.0068	< 0.12	< 0.0090	< 0.0096	< 0.0072	< 0.016	< 0.017	< 0.012	< 0.0069
MW-4 DUP	5/23/2019	< 0.0059	< 0.0049	< 0.0061	< 0.0050	< 0.010	< 0.0076	< 0.011	< 0.0057	< 0.0068	< 0.0076	< 0.013	< 0.010	< 0.011	< 0.0080	< 0.018	< 0.018	< 0.014	< 0.0076
MW-4 DUP	8/14/2019	< 0.0069	< 0.0058	< 0.0071	< 0.0059	< 0.012	< 0.0089	< 0.012	0.0095 <sup>J</sup>	< 0.0080	< 0.0089	< 0.015	< 0.012	< 0.013	< 0.0094	< 0.021	< 0.022	< 0.016	0.011 <sup>J</sup>
	<b>PAL:</b>	--	--	--	--	600	--	0.02	0.02	--	--	0.02	--	80	80	--	10	--	50
	<b>ES:</b>	--	--	--	--	3,000	--	0.2	0.2	--	--	0.2	--	400	400	--	100	--	250

Notes:

ug/L = micrograms per liter

<sup>J</sup> = Estimated value

<sup>b</sup> = Detected in laboratory blank

-- PAL or ES has not been established

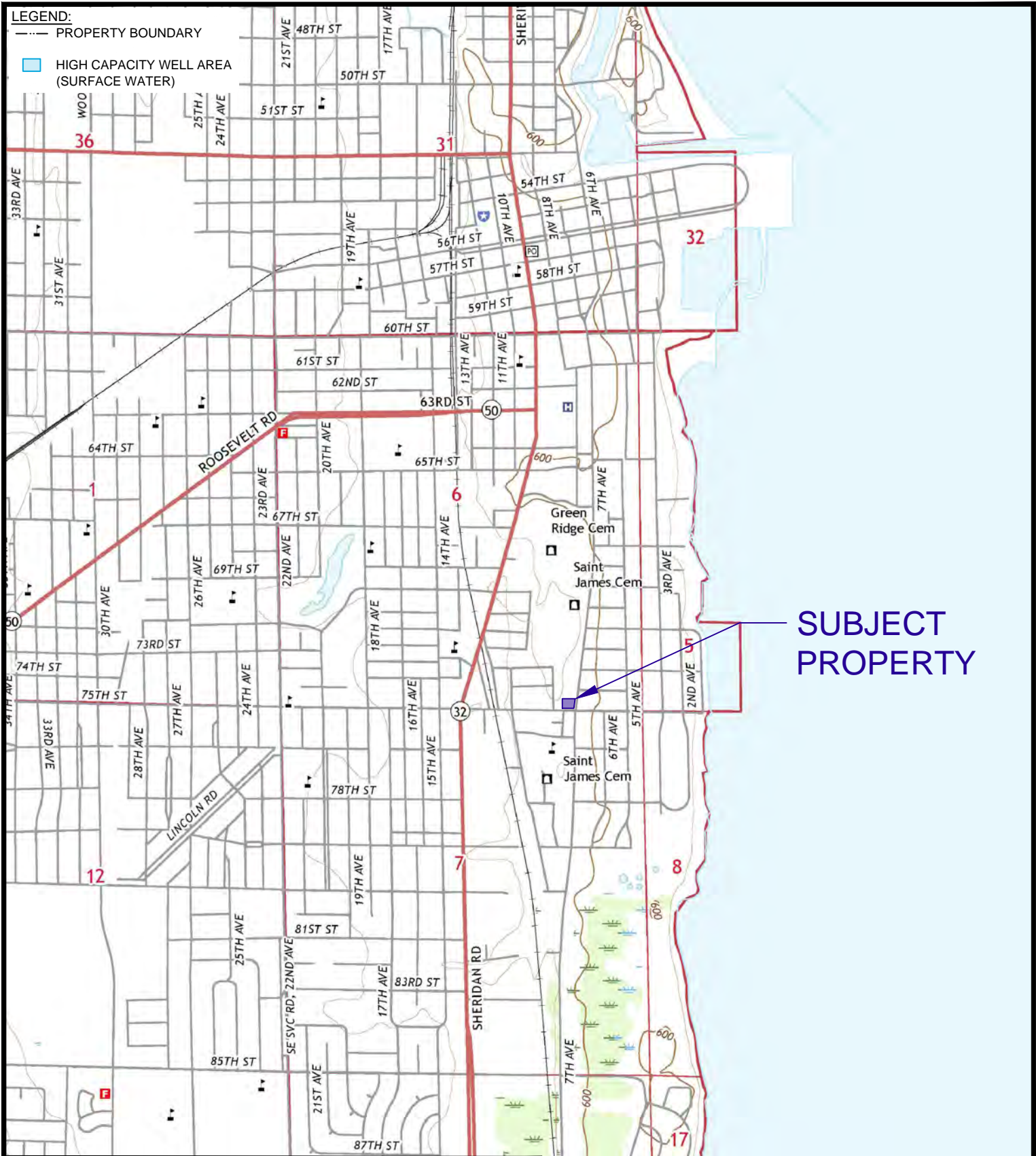
PAL - Preventive Action Limit, Wisconsin Administrative Code NR 140.10 Table 1, February 2017 exceedances are underlined italics.

ES - Enforcement Standard, Wisconsin Administrative Code NR 140.10 Table 1, February 2017 exceedances are **bold**.

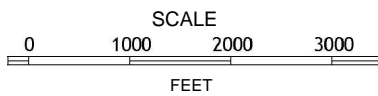
**LEGEND:**

--- PROPERTY BOUNDARY

□ HIGH CAPACITY WELL AREA (SURFACE WATER)



**SUBJECT PROPERTY**



QUADRANGLE LOCATION

**Notes:**  
1. USGS 7.5 MINUTE TOPOGRAPHIC MAPS: KENOSHA, WI QUADRANGLE (2016)

AECOM  
Milwaukee Office  
1555 RiverCenter Dr  
Milwaukee, WI  
414.944.6080

Former Gas Station  
704 75th Street  
Kenosha, WI 53143

LOCATION MAP



Project Number:  
60578411

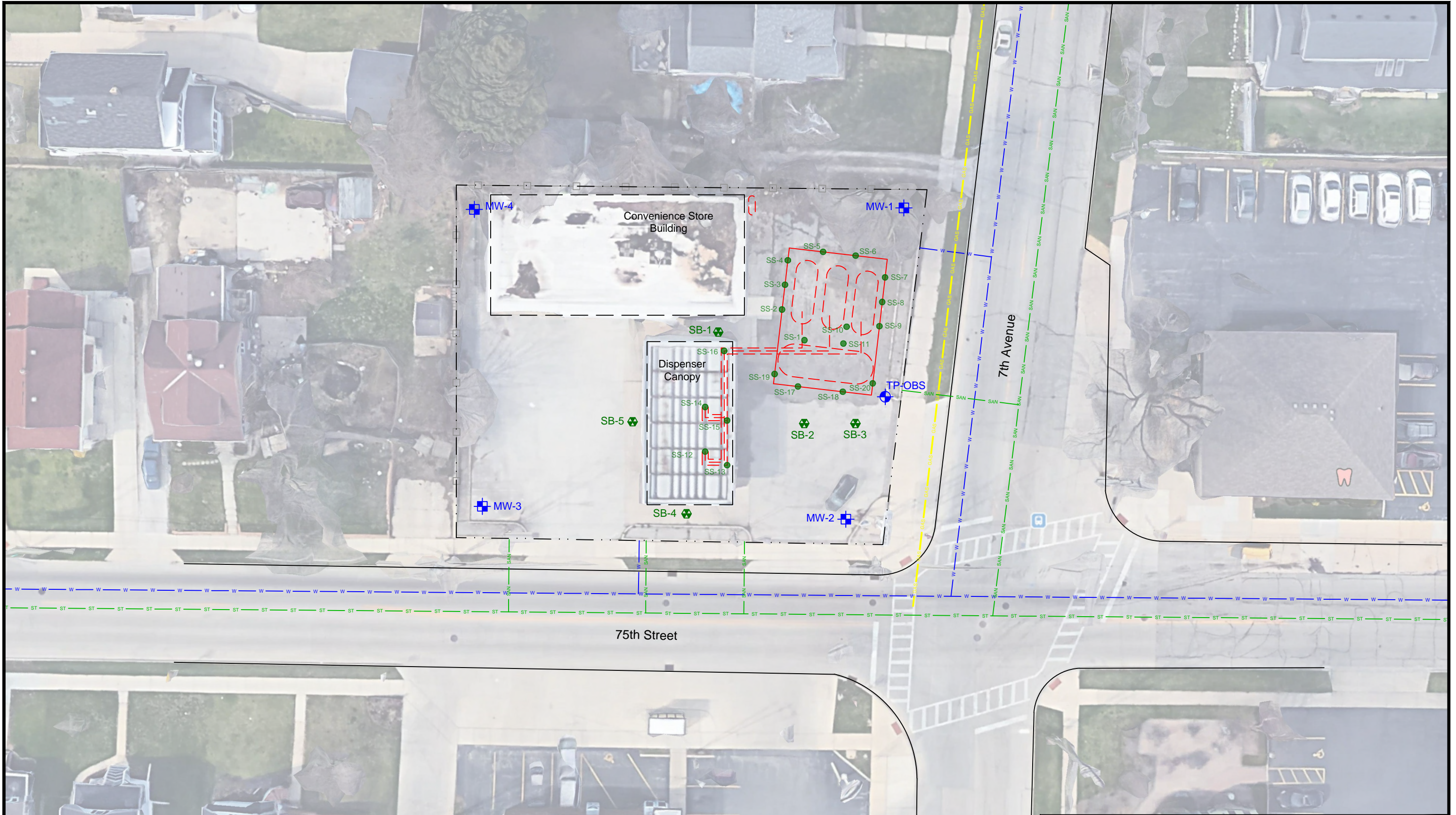
Drawn By:  
SAE/USM

Date:  
6/3/2019

Figure No. 1



File: \\USM\W\FS001\Prod\Data\Projects\6057841\1900\_Work\CADD\704 75th St\_2019\_May - Quarterly Monitoring.dwg; USER: MACKINNEY, JOEL; PLOTTED: June 4, 2019 - 9:14 AM



- LEGEND:**
- - - - PROPERTY BOUNDARY
  - - - - FENCE
  - ROADS
  - - - - FORMER BUILDING & CANOPY
  - - - - FORMER UST
  - - - - FORMER UNDERGROUND PIPING
  - GAS — UTILITY - GAS
  - W — UTILITY - WATER
  - SAN — UTILITY - SANITARY SEWER

- ⊕ MONITORING WELL
- ⊕ OBSERVATION WELL
- TSSA SOIL SAMPLE LOCATION
- ⊕ SITE INVESTIGATION SOIL BORING

- NOTES:**
- AERIAL PHOTOGRAPH FROM GOOGLE EARTH PRO, IMAGE DATED 4/6/2017; DOWNLOADED ON 6/12/2018.



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Former Gas Station  
704 75th Street  
Kenosha, WI 53143

DETAILED SITE MAP

Project Number:  
60578411

Drawn By:  
SAE/JSM

Date:  
6/3/2019

Figure No. 2





**NOTES:**

1. AERIAL PHOTOGRAPH FROM GOOGLE EARTH PRO, IMAGE DATED 4/6/2017; DOWNLOADED ON 6/12/2018.

**LEGEND:**

- - - - PROPERTY BOUNDARY
- - - - FENCE
- - - - ROADS
- ◆ MONITORING WELL
- 602 GROUNDWATER ELEVATION
- GROUNDWATER CONTOUR
- GROUNDWATER FLOW

AECOM  
 Milwaukee Office  
 1555 RiverCenter Dr  
 Milwaukee, WI  
 414.944.6080



Former Gas Station  
 704 75th Street  
 Kenosha, WI 53143

**POTENTIOMETRIC SURFACE  
 MONITORING WELLS - AUGUST 2019**

Project Number:  
 60578411

Drawn By:  
 JSM

Date:  
 8/16/2019

Figure No. 3



**NOTES:**

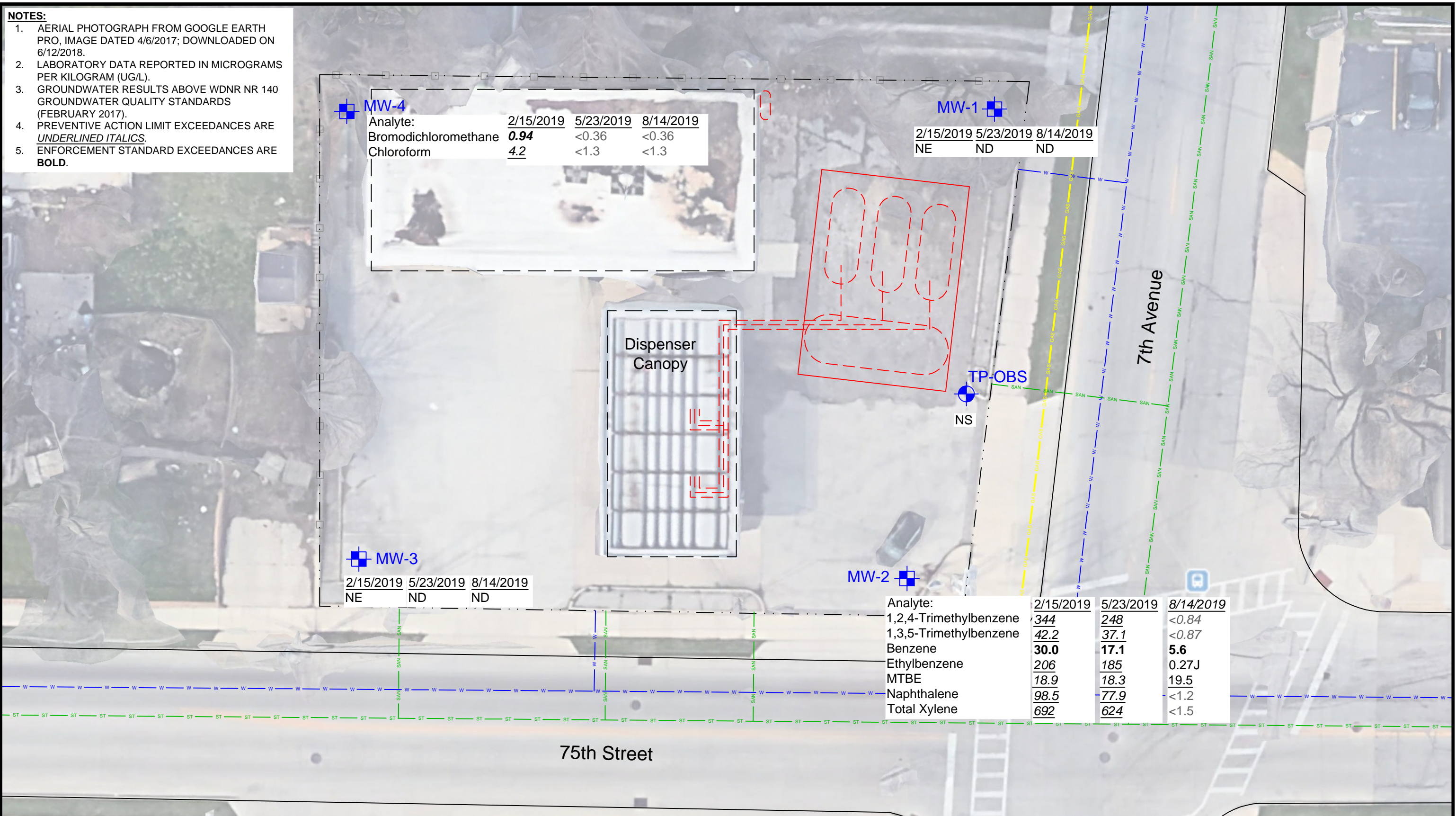
1. AERIAL PHOTOGRAPH FROM GOOGLE EARTH PRO, IMAGE DATED 4/6/2017; DOWNLOADED ON 6/12/2018.
2. LABORATORY DATA REPORTED IN MICROGRAMS PER KILOGRAM (UG/L).
3. GROUNDWATER RESULTS ABOVE WDNR NR 140 GROUNDWATER QUALITY STANDARDS (FEBRUARY 2017).
4. PREVENTIVE ACTION LIMIT EXCEEDANCES ARE *UNDERLINED ITALICS*.
5. ENFORCEMENT STANDARD EXCEEDANCES ARE **BOLD**.

Analyte:	2/15/2019	5/23/2019	8/14/2019
Bromodichloromethane	<u><b>0.94</b></u>	<0.36	<0.36
Chloroform	<u><b>4.2</b></u>	<1.3	<1.3

	2/15/2019	5/23/2019	8/14/2019
NE	ND	ND	ND

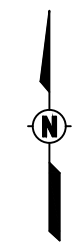
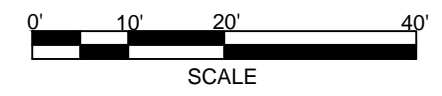
	2/15/2019	5/23/2019	8/14/2019
NE	ND	ND	ND

Analyte:	2/15/2019	5/23/2019	8/14/2019
1,2,4-Trimethylbenzene	<u><b>344</b></u>	<u><b>248</b></u>	<0.84
1,3,5-Trimethylbenzene	<u><b>42.2</b></u>	<u><b>37.1</b></u>	<0.87
Benzene	<u><b>30.0</b></u>	<u><b>17.1</b></u>	<u><b>5.6</b></u>
Ethylbenzene	<u><b>206</b></u>	<u><b>185</b></u>	0.27J
MTBE	<u><b>18.9</b></u>	<u><b>18.3</b></u>	<u><b>19.5</b></u>
Naphthalene	<u><b>98.5</b></u>	<u><b>77.9</b></u>	<1.2
Total Xylene	<u><b>692</b></u>	<u><b>624</b></u>	<1.5



- LEGEND:**
- PROPERTY BOUNDARY
  - FENCE
  - ROADS
  - - - FORMER BUILDING & CANOPY
  - ⬭ FORMER UST
  - - - FORMER UNDERGROUND PIPING
  - GAS — UTILITY - GAS
  - W — UTILITY - WATER
  - SAN — UTILITY - SANITARY SEWER

- ⊕ MONITORING WELL
- ⊕ OBSERVATION WELL
- NE NO EXCEEDANCES
- ND NO DETECTS
- NS NOT SAMPLED



AECOM  
Milwaukee Office  
1555 RiverCenter Dr  
Milwaukee, WI  
414.944.6080

Former Gas Station  
704 75th Street  
Kenosha, WI 53143

**GROUNDWATER QUALITY EXCEEDANCES  
AUGUST 2019**

Project Number: 60578411  
Date: 8/27/2019

Drawn By: JSM

**Figure No. 4**



August 22, 2019

Lanette Altenbach  
AECOM, Inc.  
1555 N River Center Drive  
Suite 214  
Milwaukee, WI 53212

RE: Project: 60578411 704 7TH STREET  
Pace Project No.: 40193123

Dear Lanette Altenbach:

Enclosed are the analytical results for sample(s) received by the laboratory on August 16, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Christopher Hyska  
christopher.hyska@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures

cc: Joel Mackinney, AECOM



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 60578411 704 7TH STREET

Pace Project No.: 40193123

---

### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 60578411 704 7TH STREET

Pace Project No.: 40193123

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40193123001	TRIP BLANK	Water	08/14/19 12:00	08/16/19 08:55
40193123002	MW-3	Water	08/14/19 12:20	08/16/19 08:55
40193123003	MW-4	Water	08/14/19 12:40	08/16/19 08:55
40193123004	MW-4 DUP	Water	08/14/19 12:40	08/16/19 08:55
40193123005	MW-1	Water	08/14/19 13:30	08/16/19 08:55
40193123006	MW-2	Water	08/14/19 14:00	08/16/19 08:55

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 60578411 704 7TH STREET

Pace Project No.: 40193123

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40193123001	TRIP BLANK	EPA 8260	HNW	63	PASI-G
40193123002	MW-3	EPA 8270 by HVI	RJN	20	PASI-G
		EPA 8260	HNW	63	PASI-G
40193123003	MW-4	EPA 8270 by HVI	RJN	20	PASI-G
		EPA 8260	HNW	63	PASI-G
40193123004	MW-4 DUP	EPA 8270 by HVI	RJN	20	PASI-G
		EPA 8260	HNW	63	PASI-G
40193123005	MW-1	EPA 8270 by HVI	RJN	20	PASI-G
		EPA 8260	HNW	63	PASI-G
40193123006	MW-2	EPA 8270 by HVI	RJN	20	PASI-G
		EPA 8260	HNW	63	PASI-G

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 60578411 704 7TH STREET

Pace Project No.: 40193123

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>40193123003</b>	<b>MW-4</b>					
EPA 8270 by HVI	Benzo(a)anthracene	0.015J	ug/L	0.041	08/20/19 18:56	
EPA 8270 by HVI	Benzo(b)fluoranthene	0.013J	ug/L	0.031	08/20/19 18:56	
EPA 8270 by HVI	Benzo(g,h,i)perylene	0.011J	ug/L	0.037	08/20/19 18:56	
EPA 8270 by HVI	Benzo(k)fluoranthene	0.012J	ug/L	0.041	08/20/19 18:56	
EPA 8270 by HVI	Pyrene	0.010J	ug/L	0.042	08/20/19 18:56	
<b>40193123004</b>	<b>MW-4 DUP</b>					
EPA 8270 by HVI	Benzo(b)fluoranthene	0.0095J	ug/L	0.034	08/21/19 08:10	
EPA 8270 by HVI	Pyrene	0.011J	ug/L	0.045	08/21/19 08:10	
<b>40193123006</b>	<b>MW-2</b>					
EPA 8270 by HVI	1-Methylnaphthalene	0.024J	ug/L	0.036	08/21/19 08:47	
EPA 8270 by HVI	2-Methylnaphthalene	0.027J	ug/L	0.030	08/21/19 08:47	
EPA 8260	Benzene	5.6	ug/L	1.0	08/19/19 23:31	
EPA 8260	Ethylbenzene	0.27J	ug/L	1.0	08/19/19 23:31	
EPA 8260	Isopropylbenzene (Cumene)	0.47J	ug/L	5.0	08/19/19 23:31	
EPA 8260	Methyl-tert-butyl ether	19.5	ug/L	4.2	08/19/19 23:31	
EPA 8260	n-Propylbenzene	0.94J	ug/L	5.0	08/19/19 23:31	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 60578411 704 7TH STREET

Pace Project No.: 40193123

**Sample: TRIP BLANK**      **Lab ID: 40193123001**      Collected: 08/14/19 12:00      Received: 08/16/19 08:55      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
Benzene	<0.25	ug/L	1.0	0.25	1		08/19/19 21:38	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		08/19/19 21:38	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		08/19/19 21:38	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		08/19/19 21:38	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		08/19/19 21:38	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		08/19/19 21:38	74-83-9	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		08/19/19 21:38	104-51-8	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		08/19/19 21:38	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		08/19/19 21:38	98-06-6	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		08/19/19 21:38	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		08/19/19 21:38	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		08/19/19 21:38	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		08/19/19 21:38	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		08/19/19 21:38	74-87-3	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		08/19/19 21:38	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		08/19/19 21:38	106-43-4	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		08/19/19 21:38	96-12-8	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		08/19/19 21:38	124-48-1	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		08/19/19 21:38	106-93-4	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		08/19/19 21:38	74-95-3	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		08/19/19 21:38	95-50-1	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		08/19/19 21:38	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		08/19/19 21:38	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		08/19/19 21:38	75-71-8	
1,1-Dichloroethane	<0.27	ug/L	1.0	0.27	1		08/19/19 21:38	75-34-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		08/19/19 21:38	107-06-2	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		08/19/19 21:38	75-35-4	
cis-1,2-Dichloroethene	<0.27	ug/L	1.0	0.27	1		08/19/19 21:38	156-59-2	
trans-1,2-Dichloroethene	<1.1	ug/L	3.6	1.1	1		08/19/19 21:38	156-60-5	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		08/19/19 21:38	78-87-5	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		08/19/19 21:38	142-28-9	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		08/19/19 21:38	594-20-7	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		08/19/19 21:38	563-58-6	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		08/19/19 21:38	10061-01-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		08/19/19 21:38	10061-02-6	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		08/19/19 21:38	108-20-3	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		08/19/19 21:38	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		08/19/19 21:38	87-68-3	
Isopropylbenzene (Cumene)	<0.39	ug/L	5.0	0.39	1		08/19/19 21:38	98-82-8	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		08/19/19 21:38	99-87-6	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		08/19/19 21:38	75-09-2	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		08/19/19 21:38	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		08/19/19 21:38	91-20-3	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		08/19/19 21:38	103-65-1	
Styrene	<0.47	ug/L	1.6	0.47	1		08/19/19 21:38	100-42-5	
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		08/19/19 21:38	630-20-6	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 60578411 704 7TH STREET

Pace Project No.: 40193123

**Sample: TRIP BLANK**      **Lab ID: 40193123001**      Collected: 08/14/19 12:00      Received: 08/16/19 08:55      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		08/19/19 21:38	79-34-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		08/19/19 21:38	127-18-4	
Toluene	<0.17	ug/L	5.0	0.17	1		08/19/19 21:38	108-88-3	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		08/19/19 21:38	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		08/19/19 21:38	120-82-1	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		08/19/19 21:38	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		08/19/19 21:38	79-00-5	
Trichloroethene	<0.26	ug/L	1.0	0.26	1		08/19/19 21:38	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		08/19/19 21:38	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		08/19/19 21:38	96-18-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		08/19/19 21:38	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		08/19/19 21:38	108-67-8	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		08/19/19 21:38	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		08/19/19 21:38	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	85	%	70-130		1		08/19/19 21:38	460-00-4	
Dibromofluoromethane (S)	108	%	70-130		1		08/19/19 21:38	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		08/19/19 21:38	2037-26-5	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 60578411 704 7TH STREET

Pace Project No.: 40193123

Sample: MW-3 Lab ID: 40193123002 Collected: 08/14/19 12:20 Received: 08/16/19 08:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by HVI</b>									
Analytical Method: EPA 8270 by HVI Preparation Method: EPA 3510									
Acenaphthene	<0.0068	ug/L	0.034	0.0068	1	08/19/19 08:32	08/20/19 18:38	83-32-9	
Acenaphthylene	<0.0056	ug/L	0.028	0.0056	1	08/19/19 08:32	08/20/19 18:38	208-96-8	
Anthracene	<0.012	ug/L	0.059	0.012	1	08/19/19 08:32	08/20/19 18:38	120-12-7	
Benzo(a)anthracene	<0.0085	ug/L	0.042	0.0085	1	08/19/19 08:32	08/20/19 18:38	56-55-3	
Benzo(a)pyrene	<0.012	ug/L	0.059	0.012	1	08/19/19 08:32	08/20/19 18:38	50-32-8	
Benzo(b)fluoranthene	<0.0064	ug/L	0.032	0.0064	1	08/19/19 08:32	08/20/19 18:38	205-99-2	
Benzo(g,h,i)perylene	<0.0076	ug/L	0.038	0.0076	1	08/19/19 08:32	08/20/19 18:38	191-24-2	
Benzo(k)fluoranthene	<0.0085	ug/L	0.042	0.0085	1	08/19/19 08:32	08/20/19 18:38	207-08-9	
Chrysene	<0.015	ug/L	0.073	0.015	1	08/19/19 08:32	08/20/19 18:38	218-01-9	
Dibenz(a,h)anthracene	<0.011	ug/L	0.056	0.011	1	08/19/19 08:32	08/20/19 18:38	53-70-3	
Fluoranthene	<0.012	ug/L	0.060	0.012	1	08/19/19 08:32	08/20/19 18:38	206-44-0	
Fluorene	<0.0090	ug/L	0.045	0.0090	1	08/19/19 08:32	08/20/19 18:38	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.020	ug/L	0.099	0.020	1	08/19/19 08:32	08/20/19 18:38	193-39-5	
1-Methylnaphthalene	<0.0066	ug/L	0.033	0.0066	1	08/19/19 08:32	08/20/19 18:38	90-12-0	
2-Methylnaphthalene	<0.0055	ug/L	0.028	0.0055	1	08/19/19 08:32	08/20/19 18:38	91-57-6	
Naphthalene	<0.021	ug/L	0.10	0.021	1	08/19/19 08:32	08/20/19 18:38	91-20-3	
Phenanthrene	<0.015	ug/L	0.077	0.015	1	08/19/19 08:32	08/20/19 18:38	85-01-8	
Pyrene	<0.0086	ug/L	0.043	0.0086	1	08/19/19 08:32	08/20/19 18:38	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	48	%	30-85		1	08/19/19 08:32	08/20/19 18:38	321-60-8	
Terphenyl-d14 (S)	73	%	10-120		1	08/19/19 08:32	08/20/19 18:38	1718-51-0	
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Benzene	<0.25	ug/L	1.0	0.25	1		08/19/19 22:00	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		08/19/19 22:00	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		08/19/19 22:00	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		08/19/19 22:00	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		08/19/19 22:00	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		08/19/19 22:00	74-83-9	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		08/19/19 22:00	104-51-8	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		08/19/19 22:00	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		08/19/19 22:00	98-06-6	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		08/19/19 22:00	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		08/19/19 22:00	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		08/19/19 22:00	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		08/19/19 22:00	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		08/19/19 22:00	74-87-3	M1
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		08/19/19 22:00	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		08/19/19 22:00	106-43-4	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		08/19/19 22:00	96-12-8	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		08/19/19 22:00	124-48-1	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		08/19/19 22:00	106-93-4	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		08/19/19 22:00	74-95-3	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		08/19/19 22:00	95-50-1	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		08/19/19 22:00	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		08/19/19 22:00	106-46-7	

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### ANALYTICAL RESULTS

Project: 60578411 704 7TH STREET

Pace Project No.: 40193123

**Sample: MW-3**      **Lab ID: 40193123002**      Collected: 08/14/19 12:20      Received: 08/16/19 08:55      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		08/19/19 22:00	75-71-8	
1,1-Dichloroethane	<0.27	ug/L	1.0	0.27	1		08/19/19 22:00	75-34-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		08/19/19 22:00	107-06-2	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		08/19/19 22:00	75-35-4	
cis-1,2-Dichloroethene	<0.27	ug/L	1.0	0.27	1		08/19/19 22:00	156-59-2	
trans-1,2-Dichloroethene	<1.1	ug/L	3.6	1.1	1		08/19/19 22:00	156-60-5	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		08/19/19 22:00	78-87-5	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		08/19/19 22:00	142-28-9	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		08/19/19 22:00	594-20-7	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		08/19/19 22:00	563-58-6	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		08/19/19 22:00	10061-01-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		08/19/19 22:00	10061-02-6	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		08/19/19 22:00	108-20-3	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		08/19/19 22:00	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		08/19/19 22:00	87-68-3	
Isopropylbenzene (Cumene)	<0.39	ug/L	5.0	0.39	1		08/19/19 22:00	98-82-8	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		08/19/19 22:00	99-87-6	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		08/19/19 22:00	75-09-2	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		08/19/19 22:00	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		08/19/19 22:00	91-20-3	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		08/19/19 22:00	103-65-1	
Styrene	<0.47	ug/L	1.6	0.47	1		08/19/19 22:00	100-42-5	
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		08/19/19 22:00	630-20-6	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		08/19/19 22:00	79-34-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		08/19/19 22:00	127-18-4	
Toluene	<0.17	ug/L	5.0	0.17	1		08/19/19 22:00	108-88-3	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		08/19/19 22:00	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		08/19/19 22:00	120-82-1	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		08/19/19 22:00	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		08/19/19 22:00	79-00-5	
Trichloroethene	<0.26	ug/L	1.0	0.26	1		08/19/19 22:00	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		08/19/19 22:00	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		08/19/19 22:00	96-18-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		08/19/19 22:00	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		08/19/19 22:00	108-67-8	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		08/19/19 22:00	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		08/19/19 22:00	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	84	%	70-130		1		08/19/19 22:00	460-00-4	
Dibromofluoromethane (S)	107	%	70-130		1		08/19/19 22:00	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		08/19/19 22:00	2037-26-5	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 60578411 704 7TH STREET

Pace Project No.: 40193123

**Sample: MW-4**      **Lab ID: 40193123003**      Collected: 08/14/19 12:40      Received: 08/16/19 08:55      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by HVI</b>		Analytical Method: EPA 8270 by HVI      Preparation Method: EPA 3510							
Acenaphthene	<0.0066	ug/L	0.033	0.0066	1	08/19/19 08:32	08/20/19 18:56	83-32-9	
Acenaphthylene	<0.0054	ug/L	0.027	0.0054	1	08/19/19 08:32	08/20/19 18:56	208-96-8	
Anthracene	<0.011	ug/L	0.057	0.011	1	08/19/19 08:32	08/20/19 18:56	120-12-7	
Benzo(a)anthracene	0.015J	ug/L	0.041	0.0082	1	08/19/19 08:32	08/20/19 18:56	56-55-3	
Benzo(a)pyrene	<0.011	ug/L	0.057	0.011	1	08/19/19 08:32	08/20/19 18:56	50-32-8	
Benzo(b)fluoranthene	0.013J	ug/L	0.031	0.0062	1	08/19/19 08:32	08/20/19 18:56	205-99-2	
Benzo(g,h,i)perylene	0.011J	ug/L	0.037	0.0074	1	08/19/19 08:32	08/20/19 18:56	191-24-2	
Benzo(k)fluoranthene	0.012J	ug/L	0.041	0.0082	1	08/19/19 08:32	08/20/19 18:56	207-08-9	
Chrysene	<0.014	ug/L	0.071	0.014	1	08/19/19 08:32	08/20/19 18:56	218-01-9	
Dibenz(a,h)anthracene	<0.011	ug/L	0.054	0.011	1	08/19/19 08:32	08/20/19 18:56	53-70-3	
Fluoranthene	<0.012	ug/L	0.058	0.012	1	08/19/19 08:32	08/20/19 18:56	206-44-0	
Fluorene	<0.0087	ug/L	0.043	0.0087	1	08/19/19 08:32	08/20/19 18:56	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.019	ug/L	0.096	0.019	1	08/19/19 08:32	08/20/19 18:56	193-39-5	
1-Methylnaphthalene	<0.0064	ug/L	0.032	0.0064	1	08/19/19 08:32	08/20/19 18:56	90-12-0	
2-Methylnaphthalene	<0.0053	ug/L	0.027	0.0053	1	08/19/19 08:32	08/20/19 18:56	91-57-6	
Naphthalene	<0.020	ug/L	0.10	0.020	1	08/19/19 08:32	08/20/19 18:56	91-20-3	
Phenanthrene	<0.015	ug/L	0.075	0.015	1	08/19/19 08:32	08/20/19 18:56	85-01-8	
Pyrene	0.010J	ug/L	0.042	0.0083	1	08/19/19 08:32	08/20/19 18:56	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	50	%	30-85		1	08/19/19 08:32	08/20/19 18:56	321-60-8	
Terphenyl-d14 (S)	65	%	10-120		1	08/19/19 08:32	08/20/19 18:56	1718-51-0	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Benzene	<0.25	ug/L	1.0	0.25	1		08/19/19 22:23	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		08/19/19 22:23	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		08/19/19 22:23	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		08/19/19 22:23	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		08/19/19 22:23	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		08/19/19 22:23	74-83-9	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		08/19/19 22:23	104-51-8	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		08/19/19 22:23	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		08/19/19 22:23	98-06-6	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		08/19/19 22:23	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		08/19/19 22:23	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		08/19/19 22:23	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		08/19/19 22:23	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		08/19/19 22:23	74-87-3	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		08/19/19 22:23	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		08/19/19 22:23	106-43-4	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		08/19/19 22:23	96-12-8	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		08/19/19 22:23	124-48-1	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		08/19/19 22:23	106-93-4	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		08/19/19 22:23	74-95-3	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		08/19/19 22:23	95-50-1	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		08/19/19 22:23	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		08/19/19 22:23	106-46-7	

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## ANALYTICAL RESULTS

Project: 60578411 704 7TH STREET

Pace Project No.: 40193123

**Sample: MW-4**      **Lab ID: 40193123003**      Collected: 08/14/19 12:40      Received: 08/16/19 08:55      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		08/19/19 22:23	75-71-8	
1,1-Dichloroethane	<0.27	ug/L	1.0	0.27	1		08/19/19 22:23	75-34-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		08/19/19 22:23	107-06-2	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		08/19/19 22:23	75-35-4	
cis-1,2-Dichloroethene	<0.27	ug/L	1.0	0.27	1		08/19/19 22:23	156-59-2	
trans-1,2-Dichloroethene	<1.1	ug/L	3.6	1.1	1		08/19/19 22:23	156-60-5	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		08/19/19 22:23	78-87-5	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		08/19/19 22:23	142-28-9	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		08/19/19 22:23	594-20-7	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		08/19/19 22:23	563-58-6	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		08/19/19 22:23	10061-01-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		08/19/19 22:23	10061-02-6	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		08/19/19 22:23	108-20-3	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		08/19/19 22:23	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		08/19/19 22:23	87-68-3	
Isopropylbenzene (Cumene)	<0.39	ug/L	5.0	0.39	1		08/19/19 22:23	98-82-8	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		08/19/19 22:23	99-87-6	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		08/19/19 22:23	75-09-2	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		08/19/19 22:23	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		08/19/19 22:23	91-20-3	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		08/19/19 22:23	103-65-1	
Styrene	<0.47	ug/L	1.6	0.47	1		08/19/19 22:23	100-42-5	
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		08/19/19 22:23	630-20-6	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		08/19/19 22:23	79-34-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		08/19/19 22:23	127-18-4	
Toluene	<0.17	ug/L	5.0	0.17	1		08/19/19 22:23	108-88-3	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		08/19/19 22:23	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		08/19/19 22:23	120-82-1	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		08/19/19 22:23	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		08/19/19 22:23	79-00-5	
Trichloroethene	<0.26	ug/L	1.0	0.26	1		08/19/19 22:23	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		08/19/19 22:23	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		08/19/19 22:23	96-18-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		08/19/19 22:23	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		08/19/19 22:23	108-67-8	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		08/19/19 22:23	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		08/19/19 22:23	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	85	%	70-130		1		08/19/19 22:23	460-00-4	
Dibromofluoromethane (S)	108	%	70-130		1		08/19/19 22:23	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		08/19/19 22:23	2037-26-5	

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### ANALYTICAL RESULTS

Project: 60578411 704 7TH STREET  
Pace Project No.: 40193123

**Sample: MW-4 DUP**      **Lab ID: 40193123004**      Collected: 08/14/19 12:40      Received: 08/16/19 08:55      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by HVI</b>									
Analytical Method: EPA 8270 by HVI      Preparation Method: EPA 3510									
Acenaphthene	<0.0071	ug/L	0.036	0.0071	1	08/20/19 08:19	08/21/19 08:10	83-32-9	
Acenaphthylene	<0.0059	ug/L	0.029	0.0059	1	08/20/19 08:19	08/21/19 08:10	208-96-8	
Anthracene	<0.012	ug/L	0.061	0.012	1	08/20/19 08:19	08/21/19 08:10	120-12-7	
Benzo(a)anthracene	<0.0089	ug/L	0.044	0.0089	1	08/20/19 08:19	08/21/19 08:10	56-55-3	
Benzo(a)pyrene	<0.012	ug/L	0.062	0.012	1	08/20/19 08:19	08/21/19 08:10	50-32-8	
Benzo(b)fluoranthene	0.0095J	ug/L	0.034	0.0068	1	08/20/19 08:19	08/21/19 08:10	205-99-2	
Benzo(g,h,i)perylene	<0.0080	ug/L	0.040	0.0080	1	08/20/19 08:19	08/21/19 08:10	191-24-2	
Benzo(k)fluoranthene	<0.0089	ug/L	0.044	0.0089	1	08/20/19 08:19	08/21/19 08:10	207-08-9	
Chrysene	<0.015	ug/L	0.077	0.015	1	08/20/19 08:19	08/21/19 08:10	218-01-9	
Dibenz(a,h)anthracene	<0.012	ug/L	0.059	0.012	1	08/20/19 08:19	08/21/19 08:10	53-70-3	
Fluoranthene	<0.013	ug/L	0.063	0.013	1	08/20/19 08:19	08/21/19 08:10	206-44-0	
Fluorene	<0.0094	ug/L	0.047	0.0094	1	08/20/19 08:19	08/21/19 08:10	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.021	ug/L	0.10	0.021	1	08/20/19 08:19	08/21/19 08:10	193-39-5	
1-Methylnaphthalene	<0.0069	ug/L	0.035	0.0069	1	08/20/19 08:19	08/21/19 08:10	90-12-0	
2-Methylnaphthalene	<0.0058	ug/L	0.029	0.0058	1	08/20/19 08:19	08/21/19 08:10	91-57-6	
Naphthalene	<0.022	ug/L	0.11	0.022	1	08/20/19 08:19	08/21/19 08:10	91-20-3	
Phenanthrene	<0.016	ug/L	0.081	0.016	1	08/20/19 08:19	08/21/19 08:10	85-01-8	
Pyrene	0.011J	ug/L	0.045	0.0090	1	08/20/19 08:19	08/21/19 08:10	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	51	%	30-85		1	08/20/19 08:19	08/21/19 08:10	321-60-8	
Terphenyl-d14 (S)	74	%	10-120		1	08/20/19 08:19	08/21/19 08:10	1718-51-0	
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Benzene	<0.25	ug/L	1.0	0.25	1		08/19/19 22:45	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		08/19/19 22:45	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		08/19/19 22:45	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		08/19/19 22:45	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		08/19/19 22:45	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		08/19/19 22:45	74-83-9	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		08/19/19 22:45	104-51-8	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		08/19/19 22:45	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		08/19/19 22:45	98-06-6	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		08/19/19 22:45	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		08/19/19 22:45	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		08/19/19 22:45	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		08/19/19 22:45	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		08/19/19 22:45	74-87-3	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		08/19/19 22:45	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		08/19/19 22:45	106-43-4	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		08/19/19 22:45	96-12-8	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		08/19/19 22:45	124-48-1	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		08/19/19 22:45	106-93-4	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		08/19/19 22:45	74-95-3	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		08/19/19 22:45	95-50-1	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		08/19/19 22:45	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		08/19/19 22:45	106-46-7	

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## ANALYTICAL RESULTS

Project: 60578411 704 7TH STREET

Pace Project No.: 40193123

**Sample: MW-4 DUP**      **Lab ID: 40193123004**      Collected: 08/14/19 12:40      Received: 08/16/19 08:55      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		08/19/19 22:45	75-71-8	
1,1-Dichloroethane	<0.27	ug/L	1.0	0.27	1		08/19/19 22:45	75-34-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		08/19/19 22:45	107-06-2	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		08/19/19 22:45	75-35-4	
cis-1,2-Dichloroethene	<0.27	ug/L	1.0	0.27	1		08/19/19 22:45	156-59-2	
trans-1,2-Dichloroethene	<1.1	ug/L	3.6	1.1	1		08/19/19 22:45	156-60-5	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		08/19/19 22:45	78-87-5	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		08/19/19 22:45	142-28-9	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		08/19/19 22:45	594-20-7	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		08/19/19 22:45	563-58-6	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		08/19/19 22:45	10061-01-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		08/19/19 22:45	10061-02-6	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		08/19/19 22:45	108-20-3	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		08/19/19 22:45	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		08/19/19 22:45	87-68-3	
Isopropylbenzene (Cumene)	<0.39	ug/L	5.0	0.39	1		08/19/19 22:45	98-82-8	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		08/19/19 22:45	99-87-6	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		08/19/19 22:45	75-09-2	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		08/19/19 22:45	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		08/19/19 22:45	91-20-3	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		08/19/19 22:45	103-65-1	
Styrene	<0.47	ug/L	1.6	0.47	1		08/19/19 22:45	100-42-5	
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		08/19/19 22:45	630-20-6	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		08/19/19 22:45	79-34-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		08/19/19 22:45	127-18-4	
Toluene	<0.17	ug/L	5.0	0.17	1		08/19/19 22:45	108-88-3	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		08/19/19 22:45	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		08/19/19 22:45	120-82-1	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		08/19/19 22:45	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		08/19/19 22:45	79-00-5	
Trichloroethene	<0.26	ug/L	1.0	0.26	1		08/19/19 22:45	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		08/19/19 22:45	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		08/19/19 22:45	96-18-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		08/19/19 22:45	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		08/19/19 22:45	108-67-8	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		08/19/19 22:45	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		08/19/19 22:45	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	86	%	70-130		1		08/19/19 22:45	460-00-4	
Dibromofluoromethane (S)	110	%	70-130		1		08/19/19 22:45	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		08/19/19 22:45	2037-26-5	

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## ANALYTICAL RESULTS

Project: 60578411 704 7TH STREET

Pace Project No.: 40193123

**Sample: MW-1**      **Lab ID: 40193123005**      Collected: 08/14/19 13:30      Received: 08/16/19 08:55      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by HVI</b>									
Analytical Method: EPA 8270 by HVI    Preparation Method: EPA 3510									
Acenaphthene	<0.0068	ug/L	0.034	0.0068	1	08/20/19 08:19	08/21/19 08:28	83-32-9	
Acenaphthylene	<0.0056	ug/L	0.028	0.0056	1	08/20/19 08:19	08/21/19 08:28	208-96-8	
Anthracene	<0.012	ug/L	0.059	0.012	1	08/20/19 08:19	08/21/19 08:28	120-12-7	
Benzo(a)anthracene	<0.0085	ug/L	0.042	0.0085	1	08/20/19 08:19	08/21/19 08:28	56-55-3	
Benzo(a)pyrene	<0.012	ug/L	0.059	0.012	1	08/20/19 08:19	08/21/19 08:28	50-32-8	
Benzo(b)fluoranthene	<0.0064	ug/L	0.032	0.0064	1	08/20/19 08:19	08/21/19 08:28	205-99-2	
Benzo(g,h,i)perylene	<0.0076	ug/L	0.038	0.0076	1	08/20/19 08:19	08/21/19 08:28	191-24-2	
Benzo(k)fluoranthene	<0.0085	ug/L	0.042	0.0085	1	08/20/19 08:19	08/21/19 08:28	207-08-9	
Chrysene	<0.015	ug/L	0.073	0.015	1	08/20/19 08:19	08/21/19 08:28	218-01-9	
Dibenz(a,h)anthracene	<0.011	ug/L	0.056	0.011	1	08/20/19 08:19	08/21/19 08:28	53-70-3	
Fluoranthene	<0.012	ug/L	0.060	0.012	1	08/20/19 08:19	08/21/19 08:28	206-44-0	
Fluorene	<0.0090	ug/L	0.045	0.0090	1	08/20/19 08:19	08/21/19 08:28	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.020	ug/L	0.099	0.020	1	08/20/19 08:19	08/21/19 08:28	193-39-5	
1-Methylnaphthalene	<0.0066	ug/L	0.033	0.0066	1	08/20/19 08:19	08/21/19 08:28	90-12-0	
2-Methylnaphthalene	<0.0055	ug/L	0.028	0.0055	1	08/20/19 08:19	08/21/19 08:28	91-57-6	
Naphthalene	<0.021	ug/L	0.10	0.021	1	08/20/19 08:19	08/21/19 08:28	91-20-3	
Phenanthrene	<0.015	ug/L	0.077	0.015	1	08/20/19 08:19	08/21/19 08:28	85-01-8	
Pyrene	<0.0086	ug/L	0.043	0.0086	1	08/20/19 08:19	08/21/19 08:28	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	50	%	30-85		1	08/20/19 08:19	08/21/19 08:28	321-60-8	
Terphenyl-d14 (S)	68	%	10-120		1	08/20/19 08:19	08/21/19 08:28	1718-51-0	
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Benzene	<0.25	ug/L	1.0	0.25	1		08/19/19 23:08	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		08/19/19 23:08	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		08/19/19 23:08	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		08/19/19 23:08	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		08/19/19 23:08	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		08/19/19 23:08	74-83-9	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		08/19/19 23:08	104-51-8	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		08/19/19 23:08	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		08/19/19 23:08	98-06-6	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		08/19/19 23:08	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		08/19/19 23:08	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		08/19/19 23:08	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		08/19/19 23:08	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		08/19/19 23:08	74-87-3	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		08/19/19 23:08	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		08/19/19 23:08	106-43-4	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		08/19/19 23:08	96-12-8	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		08/19/19 23:08	124-48-1	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		08/19/19 23:08	106-93-4	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		08/19/19 23:08	74-95-3	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		08/19/19 23:08	95-50-1	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		08/19/19 23:08	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		08/19/19 23:08	106-46-7	

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## ANALYTICAL RESULTS

Project: 60578411 704 7TH STREET

Pace Project No.: 40193123

**Sample: MW-1**      **Lab ID: 40193123005**      Collected: 08/14/19 13:30      Received: 08/16/19 08:55      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		08/19/19 23:08	75-71-8	
1,1-Dichloroethane	<0.27	ug/L	1.0	0.27	1		08/19/19 23:08	75-34-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		08/19/19 23:08	107-06-2	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		08/19/19 23:08	75-35-4	
cis-1,2-Dichloroethene	<0.27	ug/L	1.0	0.27	1		08/19/19 23:08	156-59-2	
trans-1,2-Dichloroethene	<1.1	ug/L	3.6	1.1	1		08/19/19 23:08	156-60-5	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		08/19/19 23:08	78-87-5	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		08/19/19 23:08	142-28-9	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		08/19/19 23:08	594-20-7	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		08/19/19 23:08	563-58-6	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		08/19/19 23:08	10061-01-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		08/19/19 23:08	10061-02-6	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		08/19/19 23:08	108-20-3	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		08/19/19 23:08	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		08/19/19 23:08	87-68-3	
Isopropylbenzene (Cumene)	<0.39	ug/L	5.0	0.39	1		08/19/19 23:08	98-82-8	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		08/19/19 23:08	99-87-6	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		08/19/19 23:08	75-09-2	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		08/19/19 23:08	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		08/19/19 23:08	91-20-3	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		08/19/19 23:08	103-65-1	
Styrene	<0.47	ug/L	1.6	0.47	1		08/19/19 23:08	100-42-5	
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		08/19/19 23:08	630-20-6	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		08/19/19 23:08	79-34-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		08/19/19 23:08	127-18-4	
Toluene	<0.17	ug/L	5.0	0.17	1		08/19/19 23:08	108-88-3	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		08/19/19 23:08	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		08/19/19 23:08	120-82-1	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		08/19/19 23:08	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		08/19/19 23:08	79-00-5	
Trichloroethene	<0.26	ug/L	1.0	0.26	1		08/19/19 23:08	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		08/19/19 23:08	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		08/19/19 23:08	96-18-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		08/19/19 23:08	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		08/19/19 23:08	108-67-8	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		08/19/19 23:08	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		08/19/19 23:08	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	85	%	70-130		1		08/19/19 23:08	460-00-4	
Dibromofluoromethane (S)	110	%	70-130		1		08/19/19 23:08	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		08/19/19 23:08	2037-26-5	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 60578411 704 7TH STREET

Pace Project No.: 40193123

**Sample: MW-2**      **Lab ID: 40193123006**      Collected: 08/14/19 14:00      Received: 08/16/19 08:55      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270 MSSV PAH by HVI</b>									
Analytical Method: EPA 8270 by HVI    Preparation Method: EPA 3510									
Acenaphthene	<0.0075	ug/L	0.037	0.0075	1	08/20/19 08:19	08/21/19 08:47	83-32-9	
Acenaphthylene	<0.0061	ug/L	0.031	0.0061	1	08/20/19 08:19	08/21/19 08:47	208-96-8	
Anthracene	<0.013	ug/L	0.065	0.013	1	08/20/19 08:19	08/21/19 08:47	120-12-7	
Benzo(a)anthracene	<0.0093	ug/L	0.047	0.0093	1	08/20/19 08:19	08/21/19 08:47	56-55-3	
Benzo(a)pyrene	<0.013	ug/L	0.065	0.013	1	08/20/19 08:19	08/21/19 08:47	50-32-8	
Benzo(b)fluoranthene	<0.0071	ug/L	0.035	0.0071	1	08/20/19 08:19	08/21/19 08:47	205-99-2	
Benzo(g,h,i)perylene	<0.0084	ug/L	0.042	0.0084	1	08/20/19 08:19	08/21/19 08:47	191-24-2	
Benzo(k)fluoranthene	<0.0093	ug/L	0.047	0.0093	1	08/20/19 08:19	08/21/19 08:47	207-08-9	
Chrysene	<0.016	ug/L	0.081	0.016	1	08/20/19 08:19	08/21/19 08:47	218-01-9	
Dibenz(a,h)anthracene	<0.012	ug/L	0.062	0.012	1	08/20/19 08:19	08/21/19 08:47	53-70-3	
Fluoranthene	<0.013	ug/L	0.066	0.013	1	08/20/19 08:19	08/21/19 08:47	206-44-0	
Fluorene	<0.0098	ug/L	0.049	0.0098	1	08/20/19 08:19	08/21/19 08:47	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.022	ug/L	0.11	0.022	1	08/20/19 08:19	08/21/19 08:47	193-39-5	
1-Methylnaphthalene	0.024J	ug/L	0.036	0.0073	1	08/20/19 08:19	08/21/19 08:47	90-12-0	
2-Methylnaphthalene	0.027J	ug/L	0.030	0.0060	1	08/20/19 08:19	08/21/19 08:47	91-57-6	
Naphthalene	<0.023	ug/L	0.11	0.023	1	08/20/19 08:19	08/21/19 08:47	91-20-3	
Phenanthrene	<0.017	ug/L	0.085	0.017	1	08/20/19 08:19	08/21/19 08:47	85-01-8	
Pyrene	<0.0094	ug/L	0.047	0.0094	1	08/20/19 08:19	08/21/19 08:47	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	50	%	30-85		1	08/20/19 08:19	08/21/19 08:47	321-60-8	
Terphenyl-d14 (S)	64	%	10-120		1	08/20/19 08:19	08/21/19 08:47	1718-51-0	
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Benzene	5.6	ug/L	1.0	0.25	1		08/19/19 23:31	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		08/19/19 23:31	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		08/19/19 23:31	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		08/19/19 23:31	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		08/19/19 23:31	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		08/19/19 23:31	74-83-9	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		08/19/19 23:31	104-51-8	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		08/19/19 23:31	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		08/19/19 23:31	98-06-6	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		08/19/19 23:31	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		08/19/19 23:31	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		08/19/19 23:31	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		08/19/19 23:31	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		08/19/19 23:31	74-87-3	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		08/19/19 23:31	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		08/19/19 23:31	106-43-4	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		08/19/19 23:31	96-12-8	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		08/19/19 23:31	124-48-1	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		08/19/19 23:31	106-93-4	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		08/19/19 23:31	74-95-3	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		08/19/19 23:31	95-50-1	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		08/19/19 23:31	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		08/19/19 23:31	106-46-7	

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## ANALYTICAL RESULTS

Project: 60578411 704 7TH STREET

Pace Project No.: 40193123

**Sample: MW-2**      **Lab ID: 40193123006**      Collected: 08/14/19 14:00      Received: 08/16/19 08:55      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		08/19/19 23:31	75-71-8	
1,1-Dichloroethane	<0.27	ug/L	1.0	0.27	1		08/19/19 23:31	75-34-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		08/19/19 23:31	107-06-2	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		08/19/19 23:31	75-35-4	
cis-1,2-Dichloroethene	<0.27	ug/L	1.0	0.27	1		08/19/19 23:31	156-59-2	
trans-1,2-Dichloroethene	<1.1	ug/L	3.6	1.1	1		08/19/19 23:31	156-60-5	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		08/19/19 23:31	78-87-5	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		08/19/19 23:31	142-28-9	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		08/19/19 23:31	594-20-7	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		08/19/19 23:31	563-58-6	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		08/19/19 23:31	10061-01-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		08/19/19 23:31	10061-02-6	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		08/19/19 23:31	108-20-3	
Ethylbenzene	0.27J	ug/L	1.0	0.22	1		08/19/19 23:31	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		08/19/19 23:31	87-68-3	
Isopropylbenzene (Cumene)	0.47J	ug/L	5.0	0.39	1		08/19/19 23:31	98-82-8	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		08/19/19 23:31	99-87-6	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		08/19/19 23:31	75-09-2	
Methyl-tert-butyl ether	19.5	ug/L	4.2	1.2	1		08/19/19 23:31	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		08/19/19 23:31	91-20-3	
n-Propylbenzene	0.94J	ug/L	5.0	0.81	1		08/19/19 23:31	103-65-1	
Styrene	<0.47	ug/L	1.6	0.47	1		08/19/19 23:31	100-42-5	
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		08/19/19 23:31	630-20-6	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		08/19/19 23:31	79-34-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		08/19/19 23:31	127-18-4	
Toluene	<0.17	ug/L	5.0	0.17	1		08/19/19 23:31	108-88-3	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		08/19/19 23:31	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		08/19/19 23:31	120-82-1	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		08/19/19 23:31	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		08/19/19 23:31	79-00-5	
Trichloroethene	<0.26	ug/L	1.0	0.26	1		08/19/19 23:31	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		08/19/19 23:31	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		08/19/19 23:31	96-18-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		08/19/19 23:31	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		08/19/19 23:31	108-67-8	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		08/19/19 23:31	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		08/19/19 23:31	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	85	%	70-130		1		08/19/19 23:31	460-00-4	
Dibromofluoromethane (S)	107	%	70-130		1		08/19/19 23:31	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		08/19/19 23:31	2037-26-5	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 60578411 704 7TH STREET

Pace Project No.: 40193123

QC Batch: 331005 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV  
Associated Lab Samples: 40193123001, 40193123002, 40193123003, 40193123004, 40193123005, 40193123006

METHOD BLANK: 1921212 Matrix: Water  
Associated Lab Samples: 40193123001, 40193123002, 40193123003, 40193123004, 40193123005, 40193123006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.27	1.0	08/19/19 17:08	
1,1,1-Trichloroethane	ug/L	<0.24	1.0	08/19/19 17:08	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	1.0	08/19/19 17:08	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	08/19/19 17:08	
1,1-Dichloroethane	ug/L	<0.27	1.0	08/19/19 17:08	
1,1-Dichloroethene	ug/L	<0.24	1.0	08/19/19 17:08	
1,1-Dichloropropene	ug/L	<0.54	1.8	08/19/19 17:08	
1,2,3-Trichlorobenzene	ug/L	<0.63	5.0	08/19/19 17:08	
1,2,3-Trichloropropane	ug/L	<0.59	5.0	08/19/19 17:08	
1,2,4-Trichlorobenzene	ug/L	<0.95	5.0	08/19/19 17:08	
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	08/19/19 17:08	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	08/19/19 17:08	
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	08/19/19 17:08	
1,2-Dichlorobenzene	ug/L	<0.71	2.4	08/19/19 17:08	
1,2-Dichloroethane	ug/L	<0.28	1.0	08/19/19 17:08	
1,2-Dichloropropane	ug/L	<0.28	1.0	08/19/19 17:08	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	08/19/19 17:08	
1,3-Dichlorobenzene	ug/L	<0.63	2.1	08/19/19 17:08	
1,3-Dichloropropane	ug/L	<0.83	2.8	08/19/19 17:08	
1,4-Dichlorobenzene	ug/L	<0.94	3.1	08/19/19 17:08	
2,2-Dichloropropane	ug/L	<2.3	7.6	08/19/19 17:08	
2-Chlorotoluene	ug/L	<0.93	5.0	08/19/19 17:08	
4-Chlorotoluene	ug/L	<0.76	2.5	08/19/19 17:08	
Benzene	ug/L	<0.25	1.0	08/19/19 17:08	
Bromobenzene	ug/L	<0.24	1.0	08/19/19 17:08	
Bromochloromethane	ug/L	<0.36	5.0	08/19/19 17:08	
Bromodichloromethane	ug/L	<0.36	1.2	08/19/19 17:08	
Bromoform	ug/L	<4.0	13.2	08/19/19 17:08	
Bromomethane	ug/L	<0.97	5.0	08/19/19 17:08	
Carbon tetrachloride	ug/L	<0.17	1.0	08/19/19 17:08	
Chlorobenzene	ug/L	<0.71	2.4	08/19/19 17:08	
Chloroethane	ug/L	<1.3	5.0	08/19/19 17:08	
Chloroform	ug/L	<1.3	5.0	08/19/19 17:08	
Chloromethane	ug/L	<2.2	7.3	08/19/19 17:08	
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	08/19/19 17:08	
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	08/19/19 17:08	
Dibromochloromethane	ug/L	<2.6	8.7	08/19/19 17:08	
Dibromomethane	ug/L	<0.94	3.1	08/19/19 17:08	
Dichlorodifluoromethane	ug/L	<0.50	5.0	08/19/19 17:08	
Diisopropyl ether	ug/L	<1.9	6.3	08/19/19 17:08	
Ethylbenzene	ug/L	<0.22	1.0	08/19/19 17:08	

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### QUALITY CONTROL DATA

Project: 60578411 704 7TH STREET

Pace Project No.: 40193123

METHOD BLANK: 1921212

Matrix: Water

Associated Lab Samples: 40193123001, 40193123002, 40193123003, 40193123004, 40193123005, 40193123006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<1.2	5.0	08/19/19 17:08	
Isopropylbenzene (Cumene)	ug/L	<0.39	5.0	08/19/19 17:08	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	08/19/19 17:08	
Methylene Chloride	ug/L	<0.58	5.0	08/19/19 17:08	
n-Butylbenzene	ug/L	<0.71	2.4	08/19/19 17:08	
n-Propylbenzene	ug/L	<0.81	5.0	08/19/19 17:08	
Naphthalene	ug/L	<1.2	5.0	08/19/19 17:08	
p-Isopropyltoluene	ug/L	<0.80	2.7	08/19/19 17:08	
sec-Butylbenzene	ug/L	<0.85	5.0	08/19/19 17:08	
Styrene	ug/L	<0.47	1.6	08/19/19 17:08	
tert-Butylbenzene	ug/L	<0.30	1.0	08/19/19 17:08	
Tetrachloroethene	ug/L	<0.33	1.1	08/19/19 17:08	
Toluene	ug/L	<0.17	5.0	08/19/19 17:08	
trans-1,2-Dichloroethene	ug/L	<1.1	3.6	08/19/19 17:08	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	08/19/19 17:08	
Trichloroethene	ug/L	<0.26	1.0	08/19/19 17:08	
Trichlorofluoromethane	ug/L	<0.21	1.0	08/19/19 17:08	
Vinyl chloride	ug/L	<0.17	1.0	08/19/19 17:08	
Xylene (Total)	ug/L	<1.5	3.0	08/19/19 17:08	
4-Bromofluorobenzene (S)	%	90	70-130	08/19/19 17:08	
Dibromofluoromethane (S)	%	103	70-130	08/19/19 17:08	
Toluene-d8 (S)	%	96	70-130	08/19/19 17:08	

LABORATORY CONTROL SAMPLE: 1921213

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	43.9	88	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	41.7	83	70-130	
1,1,2-Trichloroethane	ug/L	50	47.2	94	70-130	
1,1-Dichloroethane	ug/L	50	42.0	84	73-150	
1,1-Dichloroethene	ug/L	50	38.8	78	73-138	
1,2,4-Trichlorobenzene	ug/L	50	42.9	86	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	31.8	64	64-129	
1,2-Dibromoethane (EDB)	ug/L	50	45.3	91	70-130	
1,2-Dichlorobenzene	ug/L	50	46.6	93	70-130	
1,2-Dichloroethane	ug/L	50	44.5	89	75-140	
1,2-Dichloropropane	ug/L	50	53.0	106	73-135	
1,3-Dichlorobenzene	ug/L	50	46.4	93	70-130	
1,4-Dichlorobenzene	ug/L	50	48.6	97	70-130	
Benzene	ug/L	50	44.0	88	70-130	
Bromodichloromethane	ug/L	50	45.3	91	70-130	
Bromoform	ug/L	50	38.1	76	68-129	
Bromomethane	ug/L	50	17.8	36	18-159	
Carbon tetrachloride	ug/L	50	45.4	91	70-130	

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### QUALITY CONTROL DATA

Project: 60578411 704 7TH STREET

Pace Project No.: 40193123

LABORATORY CONTROL SAMPLE: 1921213

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chlorobenzene	ug/L	50	50.6	101	70-130	
Chloroethane	ug/L	50	33.4	67	53-147	
Chloroform	ug/L	50	43.1	86	74-136	
Chloromethane	ug/L	50	28.3	57	29-115	
cis-1,2-Dichloroethene	ug/L	50	49.2	98	70-130	
cis-1,3-Dichloropropene	ug/L	50	39.5	79	70-130	
Dibromochloromethane	ug/L	50	45.8	92	70-130	
Dichlorodifluoromethane	ug/L	50	11.5	23	10-130	
Ethylbenzene	ug/L	50	49.1	98	80-124	
Isopropylbenzene (Cumene)	ug/L	50	50.5	101	70-130	
Methyl-tert-butyl ether	ug/L	50	33.7	67	54-137	
Methylene Chloride	ug/L	50	39.2	78	73-138	
Styrene	ug/L	50	50.8	102	70-130	
Tetrachloroethene	ug/L	50	51.8	104	70-130	
Toluene	ug/L	50	49.7	99	80-126	
trans-1,2-Dichloroethene	ug/L	50	40.3	81	73-145	
trans-1,3-Dichloropropene	ug/L	50	37.8	76	70-130	
Trichloroethene	ug/L	50	49.1	98	70-130	
Trichlorofluoromethane	ug/L	50	41.9	84	76-147	
Vinyl chloride	ug/L	50	28.1	56	51-120	
Xylene (Total)	ug/L	150	153	102	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Dibromofluoromethane (S)	%			98	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1921454 1921455

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40193123002	Result	Spike Conc.	Conc.								
1,1,1-Trichloroethane	ug/L	<0.24	50	50	48.8	47.8	98	96	70-130	2	20		
1,1,2,2-Tetrachloroethane	ug/L	<0.28	50	50	46.9	45.6	94	91	70-130	3	20		
1,1,2-Trichloroethane	ug/L	<0.55	50	50	51.6	50.2	103	100	70-137	3	20		
1,1-Dichloroethane	ug/L	<0.27	50	50	45.1	44.3	90	89	73-153	2	20		
1,1-Dichloroethene	ug/L	<0.24	50	50	50.0	49.0	100	98	73-138	2	20		
1,2,4-Trichlorobenzene	ug/L	<0.95	50	50	49.3	48.0	99	96	70-130	3	20		
1,2-Dibromo-3-chloropropane	ug/L	<1.8	50	50	38.5	37.6	77	75	58-129	2	20		
1,2-Dibromoethane (EDB)	ug/L	<0.83	50	50	50.7	49.2	101	98	70-130	3	20		
1,2-Dichlorobenzene	ug/L	<0.71	50	50	52.0	50.3	104	101	70-130	3	20		
1,2-Dichloroethane	ug/L	<0.28	50	50	49.3	48.3	99	97	75-140	2	20		
1,2-Dichloropropane	ug/L	<0.28	50	50	55.7	54.5	111	109	71-138	2	20		
1,3-Dichlorobenzene	ug/L	<0.63	50	50	53.3	52.5	107	105	70-130	1	20		
1,4-Dichlorobenzene	ug/L	<0.94	50	50	53.4	52.2	107	104	70-130	2	20		
Benzene	ug/L	<0.25	50	50	50.6	50.0	101	100	70-130	1	20		
Bromodichloromethane	ug/L	<0.36	50	50	49.3	48.3	99	97	70-130	2	20		

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 60578411 704 7TH STREET  
Pace Project No.: 40193123

Parameter	Units	1921454		1921455		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40193123002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Bromoform	ug/L	<4.0	50	50	42.3	40.9	85	82	68-129	3	20		
Bromomethane	ug/L	<0.97	50	50	54.8	54.8	110	110	15-170	0	20		
Carbon tetrachloride	ug/L	<0.17	50	50	53.1	51.7	106	103	70-130	3	20		
Chlorobenzene	ug/L	<0.71	50	50	55.7	53.8	111	108	70-130	3	20		
Chloroethane	ug/L	<1.3	50	50	49.2	47.5	98	95	51-148	4	20		
Chloroform	ug/L	<1.3	50	50	48.9	48.0	98	96	74-136	2	20		
Chloromethane	ug/L	<2.2	50	50	65.7	64.5	130	127	23-115	2	20	M1	
cis-1,2-Dichloroethene	ug/L	<0.27	50	50	57.9	57.7	116	115	70-131	0	20		
cis-1,3-Dichloropropene	ug/L	<3.6	50	50	44.1	43.9	88	88	70-130	0	20		
Dibromochloromethane	ug/L	<2.6	50	50	51.7	49.9	103	100	70-130	4	20		
Dichlorodifluoromethane	ug/L	<0.50	50	50	51.4	50.1	103	100	10-132	3	20		
Ethylbenzene	ug/L	<0.22	50	50	55.1	54.0	110	108	80-125	2	20		
Isopropylbenzene (Cumene)	ug/L	<0.39	50	50	55.9	54.8	112	110	70-130	2	20		
Methyl-tert-butyl ether	ug/L	<1.2	50	50	39.7	39.0	79	78	51-145	2	20		
Methylene Chloride	ug/L	<0.58	50	50	45.4	44.6	91	89	73-140	2	20		
Styrene	ug/L	<0.47	50	50	55.6	53.6	111	107	70-130	4	20		
Tetrachloroethene	ug/L	<0.33	50	50	64.2	62.0	128	124	70-130	4	20		
Toluene	ug/L	<0.17	50	50	55.6	54.1	111	108	80-131	3	20		
trans-1,2-Dichloroethene	ug/L	<1.1	50	50	45.4	44.8	91	90	73-148	1	20		
trans-1,3-Dichloropropene	ug/L	<4.4	50	50	43.2	42.5	86	85	70-130	2	20		
Trichloroethene	ug/L	<0.26	50	50	52.5	51.4	105	103	70-130	2	20		
Trichlorofluoromethane	ug/L	<0.21	50	50	54.9	53.7	110	107	74-147	2	20		
Vinyl chloride	ug/L	<0.17	50	50	52.2	51.6	104	103	41-129	1	20		
Xylene (Total)	ug/L	<1.5	150	150	169	164	113	109	70-130	3	20		
4-Bromofluorobenzene (S)	%						100	99	70-130				
Dibromofluoromethane (S)	%						100	99	70-130				
Toluene-d8 (S)	%						101	100	70-130				

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### QUALITY CONTROL DATA

Project: 60578411 704 7TH STREET  
Pace Project No.: 40193123

QC Batch: 331009 Analysis Method: EPA 8270 by HVI  
QC Batch Method: EPA 3510 Analysis Description: 8270 Water PAH by HVI  
Associated Lab Samples: 40193123002, 40193123003

METHOD BLANK: 1921218 Matrix: Water  
Associated Lab Samples: 40193123002, 40193123003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/L	<0.0059	0.030	08/19/19 13:22	
2-Methylnaphthalene	ug/L	<0.0049	0.024	08/19/19 13:22	
Acenaphthene	ug/L	<0.0061	0.030	08/19/19 13:22	
Acenaphthylene	ug/L	<0.0050	0.025	08/19/19 13:22	
Anthracene	ug/L	<0.010	0.052	08/19/19 13:22	
Benzo(a)anthracene	ug/L	<0.0076	0.038	08/19/19 13:22	
Benzo(a)pyrene	ug/L	<0.011	0.053	08/19/19 13:22	
Benzo(b)fluoranthene	ug/L	<0.0057	0.029	08/19/19 13:22	
Benzo(g,h,i)perylene	ug/L	<0.0068	0.034	08/19/19 13:22	
Benzo(k)fluoranthene	ug/L	<0.0076	0.038	08/19/19 13:22	
Chrysene	ug/L	<0.013	0.065	08/19/19 13:22	
Dibenz(a,h)anthracene	ug/L	<0.010	0.050	08/19/19 13:22	
Fluoranthene	ug/L	<0.011	0.053	08/19/19 13:22	
Fluorene	ug/L	<0.0080	0.040	08/19/19 13:22	
Indeno(1,2,3-cd)pyrene	ug/L	<0.018	0.088	08/19/19 13:22	
Naphthalene	ug/L	<0.018	0.092	08/19/19 13:22	
Phenanthrene	ug/L	<0.014	0.069	08/19/19 13:22	
Pyrene	ug/L	<0.0076	0.038	08/19/19 13:22	
2-Fluorobiphenyl (S)	%	60	30-85	08/19/19 13:22	
Terphenyl-d14 (S)	%	99	10-120	08/19/19 13:22	

LABORATORY CONTROL SAMPLE: 1921219

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/L	2	1.0	50	39-88	
2-Methylnaphthalene	ug/L	2	1.1	53	40-93	
Acenaphthene	ug/L	2	1.2	60	43-102	
Acenaphthylene	ug/L	2	1.2	59	42-103	
Anthracene	ug/L	2	1.4	68	52-105	
Benzo(a)anthracene	ug/L	2	1.6	82	39-120	
Benzo(a)pyrene	ug/L	2	1.6	79	57-117	
Benzo(b)fluoranthene	ug/L	2	1.4	72	54-117	
Benzo(g,h,i)perylene	ug/L	2	0.87	44	32-82	
Benzo(k)fluoranthene	ug/L	2	1.7	86	56-123	
Chrysene	ug/L	2	1.9	94	63-122	
Dibenz(a,h)anthracene	ug/L	2	0.70	35	23-76	
Fluoranthene	ug/L	2	1.5	74	52-112	
Fluorene	ug/L	2	1.3	63	46-116	
Indeno(1,2,3-cd)pyrene	ug/L	2	1.3	67	49-110	
Naphthalene	ug/L	2	1.1	56	37-84	

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### QUALITY CONTROL DATA

Project: 60578411 704 7TH STREET

Pace Project No.: 40193123

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LABORATORY CONTROL SAMPLE: 1921219

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenanthrene	ug/L	2	1.4	69	50-104	
Pyrene	ug/L	2	1.6	82	57-123	
2-Fluorobiphenyl (S)	%			60	30-85	
Terphenyl-d14 (S)	%			99	10-120	

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### QUALITY CONTROL DATA

Project: 60578411 704 7TH STREET  
Pace Project No.: 40193123

QC Batch: 331117 Analysis Method: EPA 8270 by HVI  
QC Batch Method: EPA 3510 Analysis Description: 8270 Water PAH by HVI  
Associated Lab Samples: 40193123004, 40193123005, 40193123006

METHOD BLANK: 1921514 Matrix: Water  
Associated Lab Samples: 40193123004, 40193123005, 40193123006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/L	<0.0059	0.030	08/20/19 13:07	
2-Methylnaphthalene	ug/L	<0.0049	0.024	08/20/19 13:07	
Acenaphthene	ug/L	<0.0061	0.030	08/20/19 13:07	
Acenaphthylene	ug/L	<0.0050	0.025	08/20/19 13:07	
Anthracene	ug/L	<0.010	0.052	08/20/19 13:07	
Benzo(a)anthracene	ug/L	<0.0076	0.038	08/20/19 13:07	
Benzo(a)pyrene	ug/L	<0.011	0.053	08/20/19 13:07	
Benzo(b)fluoranthene	ug/L	<0.0057	0.029	08/20/19 13:07	
Benzo(g,h,i)perylene	ug/L	<0.0068	0.034	08/20/19 13:07	
Benzo(k)fluoranthene	ug/L	<0.0076	0.038	08/20/19 13:07	
Chrysene	ug/L	<0.013	0.065	08/20/19 13:07	
Dibenz(a,h)anthracene	ug/L	<0.010	0.050	08/20/19 13:07	
Fluoranthene	ug/L	<0.011	0.053	08/20/19 13:07	
Fluorene	ug/L	<0.0080	0.040	08/20/19 13:07	
Indeno(1,2,3-cd)pyrene	ug/L	<0.018	0.088	08/20/19 13:07	
Naphthalene	ug/L	<0.018	0.092	08/20/19 13:07	
Phenanthrene	ug/L	<0.014	0.069	08/20/19 13:07	
Pyrene	ug/L	<0.0076	0.038	08/20/19 13:07	
2-Fluorobiphenyl (S)	%	54	30-85	08/20/19 13:07	
Terphenyl-d14 (S)	%	96	10-120	08/20/19 13:07	

LABORATORY CONTROL SAMPLE: 1921515

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/L	2	0.95	48	39-88	
2-Methylnaphthalene	ug/L	2	1.0	50	40-93	
Acenaphthene	ug/L	2	1.1	57	43-102	
Acenaphthylene	ug/L	2	1.1	55	42-103	
Anthracene	ug/L	2	1.4	68	52-105	
Benzo(a)anthracene	ug/L	2	1.6	80	39-120	
Benzo(a)pyrene	ug/L	2	1.5	76	57-117	
Benzo(b)fluoranthene	ug/L	2	1.3	67	54-117	
Benzo(g,h,i)perylene	ug/L	2	0.65	32	32-82	
Benzo(k)fluoranthene	ug/L	2	1.7	83	56-123	
Chrysene	ug/L	2	1.7	87	63-122	
Dibenz(a,h)anthracene	ug/L	2	0.52	26	23-76	
Fluoranthene	ug/L	2	1.4	72	52-112	
Fluorene	ug/L	2	1.3	63	46-116	
Indeno(1,2,3-cd)pyrene	ug/L	2	1.3	63	49-110	
Naphthalene	ug/L	2	1.0	51	37-84	

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### QUALITY CONTROL DATA

Project: 60578411 704 7TH STREET

Pace Project No.: 40193123

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LABORATORY CONTROL SAMPLE: 1921515

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenanthrene	ug/L	2	1.4	70	50-104	
Pyrene	ug/L	2	1.6	82	57-123	
2-Fluorobiphenyl (S)	%			57	30-85	
Terphenyl-d14 (S)	%			96	10-120	

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## QUALIFIERS

Project: 60578411 704 7TH STREET

Pace Project No.: 40193123

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### DEFINITIONS

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

ND - Not Detected at or above LOD.

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

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

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### BATCH QUALIFIERS

Batch: 331072

[1] A MS/MSD was extracted with this batch but it is reported with a different analytical batch.

Batch: 331218

[1] A MS/MSD was extracted with this batch but it is reported with a different analytical batch

### ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 60578411 704 7TH STREET  
Pace Project No.: 40193123

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40193123002	MW-3	EPA 3510	331009	EPA 8270 by HVI	331072
40193123003	MW-4	EPA 3510	331009	EPA 8270 by HVI	331072
40193123004	MW-4 DUP	EPA 3510	331117	EPA 8270 by HVI	331218
40193123005	MW-1	EPA 3510	331117	EPA 8270 by HVI	331218
40193123006	MW-2	EPA 3510	331117	EPA 8270 by HVI	331218
40193123001	TRIP BLANK	EPA 8260	331005		
40193123002	MW-3	EPA 8260	331005		
40193123003	MW-4	EPA 8260	331005		
40193123004	MW-4 DUP	EPA 8260	331005		
40193123005	MW-1	EPA 8260	331005		
40193123006	MW-2	EPA 8260	331005		

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# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

40193523

<b>Section A</b> Required Client Information: Company: AECOM - Milwaukee Address: 1555 N. River Center Dr., Suite 214 Milwaukee, WI 53212 Email To: Lanette.Altenbach@aecom.com Phone: 414-577-1383		<b>Section B</b> Required Project Information: Report To: Lanette Altenbach Copy To: Joel Mackinney Purchase Order No.: N/A Project Name: 704 75th Street Project Number: 60378411		<b>Section C</b> Invoice Information: Attention: Accounts Payable/Finance Department Company Name: City of Kenosha Address: 652 52nd St., Kenosha, WI 53140 Pace Quote Reference: N/A Pace Project Manager: Chris Hyska Pace Profile #: (2430) Kenosha work	
<b>Section D</b> Required Client Information <b>SAMPLE ID</b> One Character per box. (A-Z, 0-9 / .) Samples IDs MUST BE UNIQUE		Valid Matrix Codes MATRIX: DRINKING WATER, WATER, WASTE WATER, PRODUCT, SOIL/SOLID, OIL, MISC, OTHER, ISSUE		CODE: DW, WT, PW, SL, OL, WP, OT, IS	
Requested Due Date/TAT: Standard		Matrix Code: WT G Sample Type: G+GRAB C-COMP Collected: DATE, TIME, COMPOSITE START, COMPOSITE END/GRAB, DATE, TIME Sample Temp at Collection: # OF CONTAINERS		Preservatives: Unpreserved, H <sub>2</sub> SO <sub>4</sub> , HNO <sub>3</sub> , HCl, NaOH, Na <sub>2</sub> S <sub>2</sub> O <sub>5</sub> , Methanol, Other	

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	PRESERVATIVES						Requested Ant	Residual Chlorine (Y/N)	Pace Project Number Lab I.D.
				DATE	TIME			COMPOSITE START	COMPOSITE END/GRAB	DATE	TIME	Unpreserved	H <sub>2</sub> SO <sub>4</sub>			
1	Trip Blank	WT G	G+GRAB C-COMP	8/14/19	12:00	8/14/19	12:00									001
2	MW-3	WT G	G+GRAB C-COMP	8/14/19	12:20	8/14/19	12:20	X								002
3	MW-4	WT G	G+GRAB C-COMP	8/14/19	12:40	8/14/19	12:40	X								003
4	MW-4 DUP	WT G	G+GRAB C-COMP	8/14/19	12:40	8/14/19	12:40	X								004
5	MW-1	WT G	G+GRAB C-COMP	8/14/19	13:30	8/14/19	13:30	X								005
6	MW-2	WT G	G+GRAB C-COMP	8/14/19	14:00	8/14/19	14:00	X								006
7																
8																
9																
10																
11																
12																

**Additional Comments:**

Joel Mackinney AECOM 8/15/19 08:30 Mary Gannon 8/15/19 12:50  
 Mary Gannon 8/15/19  
 C. Stoyanov 8/16/2019 Susan D. Lyle 8/16/2019 Ref: 0


RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Joel Mackinney AECOM	8/15/19	08:30	Mary Gannon	8/15/19	12:50	Received on Ice Y/N, Sealed Cooler Y/N, Custody Y/N, Samples Intact Y/N
Mary Gannon	8/15/19		Susan D. Lyle	8/16/2019		Received on Ice Y/N, Sealed Cooler Y/N, Custody Y/N, Samples Intact Y/N

**SAMPLER NAME AND SIGNATURE**  
 PRINT Name of SAMPLER: Joel Mackinney  
 SIGNATURE of SAMPLER: Joel Mackinney  
 DATE Signed (MM/DD/YY): 8/14/2019







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

### Sample Condition Upon Receipt Form (SCUR)

Client Name: AECOM Project #: \_\_\_\_\_

Courier:  CS Logistics  Fed Ex  Speedee  UPS  Walto  
 Client  Pace Other: \_\_\_\_\_

WO#: **40193123**



Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no  
 Custody Seal on Samples Present:  yes  no Seals intact:  yes  no  
 Packing Material:  Bubble Wrap  Bubble Bags  None  Other  
 Thermometer Used SR - N/A Type of Ice: Wet Blue Dry None  Samples on ice, cooling process has begun  
 Cooler Temperature Uncorr: ROE Corr: \_\_\_\_\_

Temp Blank Present:  yes  no Biological Tissue is Frozen:  yes  no

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

Person examining contents:  
 Date: 8-16-19  
 Initials: [Signature]

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time: _____
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:		8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): <u>427</u>		

Client Notification/ Resolution: \_\_\_\_\_ If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: [Signature] Date: 8/16/19