



# Meridian Environmental Consulting, LLC

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July 11, 2019

Carrie Stoltz  
Wisconsin Department of Natural Resources  
107 Sutliff Avenue  
Rhinelander, Wisconsin 54501

Subject:      **Progress Report:**

- **Install Monitoring Wells (MW-10A, 10B, 11A, 11B)**
- **Ground Water Sampling**

Olson & Goodman, Inc  
328 S. Hwy 13  
Stetsonville, Wisconsin 54480  
PECFA No. 54480-9742-28  
DNR BRRTS No. 03-61-563926  
Meridian No. 05F807

Dear Carrie:

This Progress Report describes recent work completed at the above referenced site.

This included:

- Install additional monitoring wells (MW-10A, -10B, -11A, -11B) to define the extent of impacted ground water
- Sample monitoring well network (October 25, 2018, May 22, 2019)

The results of this work are described in this report. Based on these results, we recommend two more ground water sampling events (August & November, 2019).

## BACKGROUND INFORMATION

The reader is referred to file reports for more detail regarding the site and previous work. A brief summary is provided below for reference.

The site is a commercial property located at 328 South State Hwy. 13 in the Village of Stetsonville, Wisconsin (Taylor County)(Figures 1 and 2). There was a buried underground storage tank (500 gallon gasoline) in use at the south end of the parking area (Figure 2). This tank was removed November 12, 1992.

There are reports that a diesel tank was buried along the south side of the property. The tank was believed to have been removed in the late 1960's/early 1970's. No further information has been found regarding this tank.

A remedial excavation (595.52 tons) of the former gasoline tank area was completed in fall 2016.

A vapor intrusion investigation was completed for the adjacent residence (108 Mink Ave). DNR Action Levels for Vapor Intrusion were not exceeded in these air samples. No further investigation is recommended with respect to vapor intrusion.

A ground water monitoring well network was installed to determine the extent of impacted ground water. This network included four wells (MW-7, MW-7P, MW-9, MW-9P) installed during the nearby Ed's Service (BRRTS No. 03-61-183093) Site Investigation. These wells are now considered part of the Olson Goodman monitoring well network.

Ground water sampling of the monitoring well network identified MTBE concentrations in MW-9P above the NR140 Preventative Action Limit (PAL). The DNR Closure Committee recommended the extent of MTBE above PALs be defined with additional monitoring wells.

## RECENT SITE INVESTIGATION WORK

### Install Monitoring Wells

Monitoring wells MW-10A, -10B, -11A, -11B were installed October 8 & 9, 2018 in the locations shown on Figure 2. The soil boring logs, monitoring well forms, and well development forms are provided in Appendix A.

The location and screened interval of the wells was chosen to investigate the extent of MTBE which was found above the NR140 PAL in MW-9P. The wells designated ‘A’ are water table wells (i.e., intersects the water table) and the wells designated ‘B’ are piezometers. Monitoring wells MW-7P and MW-9P are piezometers.

The monitoring well locations and elevations were surveyed relative to the local monitoring well network.

### Ground Water Sampling

The monitoring well network was sampled twice: October 25, 2018 and May 16, 2019. The analytical reports are provided in Appendix B and summarized in Table 1.

The depth to ground water (Table 2) and natural attenuation parameters (e.g., dissolved oxygen, temperature, pH, conductivity, ORP) (Table 3) were measured during each sampling event.

### Monitoring Well Repair and “Frost-heaving”

The PVC casing in monitoring wells MW-2A, -2B, -3A, -7, -9, and MW-9P had “frost-heaved” and had to be cut down to allow the lid to be re-attached to the manway. The lid and well plug on monitoring well MW-3A were loose and surface water was observed running into the well. The PVC casing was cut down and the lid re-attached.

The frost damage may explain the benzene impacts measured in the May 22, 2019 ground water samples (Table 1) from MW-2A and MW-3A. We recommend these wells be sampled again to confirm the ground water quality. The PVC casings will also need to be re-surveyed to reflect the current elevation.

The manway for monitoring well MW-7P was replaced May 22, 2019. This was scheduled last year but was delayed due to coordination with the current business operation.

## DATA EVALUATION

### Hydrogeology

Stetsonville is located at a drainage divide between the Black River watershed (to the north and west) and the Big Eau Pleine River watershed (to the south). Wetlands are located south and east of the village connecting to the West Branch of the Big Eau Pleine River which drains to the south (see Figure 1). The surface topography around Stetsonville is relatively flat with a gentle slope to the south at the site.

Based on nearby well logs, the site is underlain by 50 - 60 feet of glacial sediments resting on granite bedrock. The glacial sediments are fine-grained silts with sand and clay layers.

Ground water is typically within 5 feet of grade with a southerly flow direction. There is a downward vertical gradient measured in well nests (see Table 2).

There was a dewatering sump located adjacent to a loading ramp on the south side of the Olson Goodman building (see Figure 2). The loading ramp sloped downward about 5 feet below grade to allow trucks to be off-loaded into the building. The dewatering sump kept the loading ramp dry. This dewatering action likely influenced shallow ground water flow patterns within the immediate vicinity of the sump.

The ramp and sump were filled in the fall of 2018. This will likely affect ground water measurements somewhat and allow ground water to flow more naturally to the south.

### Extent of Impacted Ground Water

MTBE concentrations above NR140 Enforcement Standards and/or Preventative Action Limits (PALs) were measured repeatedly in monitoring well MW-9P (Table 1) which was installed as part of the nearby Ed's Service investigation. The source of the MTBE was originally interpreted to be from the nearby (upgradient) Ed's Service site but the data from MW-1 (Table 1) indicates the former Olson Goodman gasoline tank is the likely source of the MTBE in MW-9P.

The MTBE concentrations steadily decreased in MW-1R and MW-9P after the remedial excavation and the NR140 PAL exceedance for MTBE is no longer measured in any of the monitoring wells.

Benzene concentrations above the NR140 ES or PAL were measured in the May 16, 2019 ground water samples from MW-2A, MW-3A, and MW-5 (see Table 1). The concentrations may be due to several factors including the frost-heaving and manway damage observed in MW-2A and MW-3A. The recent filling of the loading ramp and adjacent dewatering sump may have also influenced ground water quality and flow locally.

The benzene concentrations should be confirmed with additional sampling. And the monitoring well PVC casing elevations should be re-surveyed to provide better ground water elevation data.

## CONCLUSIONS AND RECOMMENDATIONS

The extent of MTBE above NR140 PAL has been defined. No PAL exceedances were measured in the May 16, 2019 ground water sampling event.

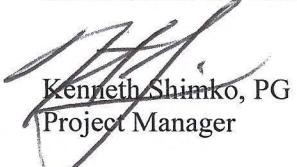
However, benzene concentrations above NR140 ES and/or PAL were measured in MW-2A and MW-3A. This may be due to frost-heaving and manway damage allowing surface street water to contaminate the well.

We recommend the following actions:

- Resurvey the elevation(s) of the monitoring well PVC casings which were cut down in response to the frost-heaving
- Repair monitoring well manways as necessary to assure the integrity of the wellhead.
- Sample the monitoring well network twice more (quarterly) to confirm the ground water quality is defined adequately to achieve Closure with GIS Registry for Soil and Ground Water.
- Prepare a Letter Report with the results of the ground water sampling.

A Change Order will be prepared for the above recommendations.

Sincerely,  
**MERIDIAN ENVIRONMENTAL CONSULTING, LLC**



Kenneth Shimko, PG  
Project Manager

C: Gary Gilbert – Project Engineer

## **TABLES**

**Table 1: Ground Water Analytical Data**

Olson Goodman/Stetsonville

Sample	Benzene	Ethylbenzene	MTBE	Naphthalene	Toluene	1,2,4-TMB	1,3,5-TMB	Total TMBs	m,p-xylenes	o-xylenes	Xylene (Total)
Units	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l			ug/l
NR140 ES	5	700	60	100	800			480			2000
NR140 PAL	0.5	140	12	10	160			96			400
<b>MW-1</b>	<i>Installed 10/16/15</i>										
11/5/2015	22200	2670	890	709	37600	2300	704	3004			18100
3/30/2016	22900	5240	201	4960	61800	6740	1850	8590			30000
6/14/2016	27200	9590	<485	3130	81400	15400	5060	20460			53200
	<i>Abandoned October 2016 for Remedial Excavation</i>										
<b>MW-1R</b>	<i>Installed 4/26/17</i>										
5/24/2017	<.5	<.5	4	<2.5	<.5	<.5	<.5	<.5	<1	<.5	<1
8/29/2017	6.3	<.39	1.7	2.4	<.39	<.42	<.42	<.84			<1.2
11/13/2017	1	<.39	.66J	<.42	<.39	<.42	<.42	<.84			<1.2
5/7/2018	.37J	<.33	<.32	<.51	<.49	<.34	<.33	<.67			<.97
10/25/2018	<.31	<.33	<.32	<.51	<.49	<.34	<.33	<.67			<.97
5/16/2019	<.25	<.22	<1.2	<1.2	<.17	<.84	<.87	<1.71	<.47	<.26	<.73
<b>MW-2A</b>	<i>Installed 4/24/2017</i>										
5/24/2017	<.5	<.5	1.8	<2.5	<.5	<.5	<.5	<.5	<1	<.5	<1
8/29/2017	<.4	<.39	1.8	<.42	<.39	<.42	<.42	<.42			<1.2
11/13/2017	<.4	<.39	1.1	<.42	<.39	<.42	<.42	<.42			<1.2
5/7/2018	<.31	<.33	.85J	<.51	<.49	<.34	<.33	<.34			<.97
10/25/2018	<.31	<.33	.82J	<.51	<.49	<.34	<.33	<.34			<.97
5/16/2019	.78J	<.22	1.7J	<1.2	<.17	<.84	<.87	<1.71	<.47	<.26	<.73
<b>MW-2B</b>	<i>Installed 4/24/2017</i>										
5/24/2017	<.5	<.5	<.17	<2.5	<.5	<.5	<.5	<.5	<1	<.5	<1
8/29/2017	<.4	<.39	.48	<.42	<.39	<.42	<.42	<.42			<1.2
11/13/2017	<.4	<.39	.48	<.42	<.39	<.42	<.42	<.42			<1.2
5/7/2018	<.31	<.33	<.32	<.51	<.49	<.34	<.33	<.34			<.97
10/25/2018	<.31	<.33	<.32	<.51	<.49	<.34	<.33	<.34			<.97
5/16/2019	<.25	<.22	<1.2	<1.2	<.17	<.84	<.87	<1.71	<.47	<.26	<.73
<b>MW-3A</b>	<i>Installed 4/25/2017</i>										
5/24/2017	<.5	<.5	.57J	<2.5	<.5	<.5	<.5	<.5	<1	<.5	<1
8/29/2017	<.4	<.39	1.1	<.42	<.39	<.42	<.42	<.42			<1.2
11/13/2017	<.4	<.39	.89J	<.42	<.39	<.42	<.42	<.42			<1.2
5/7/2018	<.31	<.33	1.0J	<.51	<.49	<.34	<.33	<.34			<.97
10/25/2018	<.31	<.33	3.1	<.51	<.49	<.34	<.33	<.34			<.97
5/16/2019	8.2	<.22	4.2	<1.2	<.17	<.84	<.87	<1.71	<.47	<.26	<.73
<b>MW-3B</b>	<i>Installed 4/25/2017</i>										
5/24/2017	<.5	<.5	<.17	<2.5	<.5	<.5	<.5	<.5	<1	<.5	<1
8/29/2017	<.4	<.39	.48	<.42	<.39	<.42	<.42	<.42			<1.2
11/13/2017	<.4	<.39	.48	<.42	<.39	<.42	<.42	<.42			<1.2
5/7/2018	<.31	<.33	<.32	<.51	<.49	<.34	<.33	<.34			<.97
10/25/2018	<.31	<.33	<.32	<.51	<.49	<.34	<.33	<.34			<.97
5/16/2019	<.25	<.22	<1.2	<1.2	<.17	<.84	<.87	<1.71	<.47	<.26	<.73
<b>MW-4</b>	<i>Installed 4/26/2017</i>										
5/24/2017	<.5	<.5	<.17	<2.5	<.5	<.5	<.5	<.5	<1	<.5	<1
8/29/2017	<.4	<.39	.48	<.42	<.39	<.42	<.42	<.42			<1.2
11/13/2017	<.4	<.39	.48	<.42	<.39	<.42	<.42	<.42			<1.2
5/7/2018	<.31	<.33	<.32	<.51	<.49	<.34	<.33	<.34			<.97
10/25/2018	<.31	<.33	<.32	<.51	<.49	<.34	<.33	<.34			<.97
5/16/2019	<.25	<.22	<1.2	<1.2	<.17	<.84	<.87	<1.71	<.47	<.26	<.73
<b>MW-5</b>	<i>Installed 4/26/2017</i>										
5/24/2017	<.5	.57J	<.17	<2.5	<.5	<.5	<.5	<.5	<1	<.5	<1
8/29/2017	.88J	<.39	.48	.71J	<.39	<.42	<.42	<.42			<1.2
11/13/2017	<.4	<.39	.48	.59J	<.39	<.42	<.42	<.42			<1.2
5/7/2018	2.3	4.1	.87J	<.51	<.49	.37J	.44J	.81J			.99J
10/25/2018	.31J	.68J	<.32	.63J	<.49	<.34	<.33	<.34			<.97
5/16/2019	2.5	1.1	<1.2	<1.2	<.17	<.84	<.87	<1.71	<.47	<.26	<.73

**Table 1: Ground Water Analytical Data**

Olson Goodman/Stetsonville

Sample	Benzene	Ethylbenzene	MTBE	Naphthalene	Toluene	1,2,4-TMB	1,3,5-TMB	Total TMBs	m,p-xylenes	o-xylenes	Xylene (Total)
Units	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l			ug/l
NR140 ES	5	700	60	100	800			480			2000
NR140 PAL	0.5	140	12	10	160			96			400
<b>MW-7</b>	<i>Installed 2/20/2008 (as part of Ed's Service site)</i>										
5/24/2017	<.4	<.39	<.48	<.42	<.39	<.42	<.42	<.42			<1.2
8/29/2017	<.4	<.39	<.48	<.42	<.39	<.42	<.42	<.42			<1.2
11/13/2017	<.4	<.39	<.48	<.42	<.39	<.42	<.42	<.42			<1.2
5/7/2018	<.31	<.33	<.32	<.51	<.49	<.34	<.33	<.34			<.97
10/25/2018	<.31	<.33	<.32	<.51	<.49	<.34	<.33	<.34			<.97
5/16/2019	<.25	<.22	<1.2	<1.2	<.17	<.84	<.87	<1.71	<.47	<.26	<.73
<b>MW-7P</b>	<i>Installed 1/23/2010 (as part of Ed's Service site)</i>										
5/24/2017	<.4	<.39	<.48	<.42	<.39	<.42	<.42	<.42			<1.2
8/29/2017	<.4	<.39	<.48	<.42	<.39	<.42	<.42	<.42			<1.2
11/13/2017	<.4	<.39	<.48	<.42	<.39	<.42	<.42	<.42			<1.2
5/7/2018	<.31	.76J	<.32	<.51	<.49	.35J	<.33	.35J			2.4J
10/25/2018	Vehicle over well										
5/16/2019	<.25	<.22	<1.2	<1.2	<.17	<.84	<.87	<1.71	<.47	<.26	<.73
<b>MW-9</b>	<i>Installed 1/22/2010 (as part of Ed's Service site)</i>										
<i>(samples collected as part of Ed's Service site)</i>											
3/24/2010	<.2	<.2	<.5	<1	<.4	<.2	<.2	<.2	<.4	<.2	<.4
6/21/2010	<.2	<.2	<.5	<1	<.4	<.2	<.2	<.2	<.4	<.2	<.4
9/20/2010	<.2	<.2	<.5	<1	<.4	<.2	<.2	<.2	<.4	<.2	<.4
12/7/2010	<.2	<.2	<.5	<1	<.4	<.2	<.2	<.2	<.4	<.2	<.4
11/8/2011	<.2	<.2	<.5	NA	<.4	<.2	<.2	<.2	<.4	<.2	<.4
5/10/2012	.87	<.2	<.5	NA	<.4	<.2	<.2	<.2	<.4	<.2	<.4
6/20/2014	<.5	<.5	<.17	NA	<.5	<.5	<.5	<.5			<1.5
9/23/2014	<.5	<.5	<.17	NA	<.5	<.5	<.5	<.5			<1.5
6/14/2016	<.4	<.39	<.48	NA	<.48	<.42	<.42	<.42			<1.2
<i>(samples collected as part of Olson Goodman site)</i>											
5/24/2017	<.4	<.39	<.48	<.42	<.39	<.42	<.42	<.42			<1.2
8/29/2017	<.4	<.39	<.48	<.42	<.39	<.42	<.42	<.42			<1.2
11/13/2017	<.4	<.39	<.48	<.42	<.39	<.42	<.42	<.42			<1.2
5/7/2018	<.31	<.33	<.32	<.51	<.49	<.34	<.33	<.34			<.97
10/25/2018	<.31	<.33	<.32	<.51	<.49	<.34	<.33	<.34			<.97
5/16/2019	<.25	<.22	<1.2	<1.2	<.17	<.84	<.87	<1.71	<.47	<.26	<.73
<b>MW-9P</b>	<i>Installed 1/22/2010 (as part of Ed's Service site)</i>										
<i>(samples collected as part of Ed's Service site)</i>											
3/24/2010	0.54	<.2	88.8	<1	<.4	<.2	<.2	<.2	<.4	<.2	<.4
6/21/2010	<.2	<.2	142	<1	<.4	<.2	<.2	<.2	<.4	<.2	<.4
9/20/2010	<.2	<.2	99.7	<1	<.4	<.2	<.2	<.2	<.4	<.2	<.4
12/7/2010	<.2	<.2	111	<1	<.4	<.2	<.2	<.2	<.4	<.2	<.4
11/8/2011	<.2	<.2	69.5	NA	<.4	<.2	<.2	<.2	<.4	<.2	<.4
5/10/2012	0.49	<.2	171	NA	<.4	<.2	<.2	<.2	<.4	<.2	<.4
6/20/2014	<.5	<.5	141	NA	<.5	<.5	<.5	<.5			<1.5
9/23/2014	<.5	<.5	146	NA	<.5	<.5	<.5	<.5			<1.5
3/30/2016	<.4	<.39	106	<.42	<.39	<.42	<.42	<.42			<1.2
6/14/2016	<.4	<.39	83.3	NA	<.39	<.42	<.42	<.42			<1.2
<i>(samples collected as part of Olson Goodman site) (excavation completed October 2016)</i>											
5/24/2017	<.4	<.39	31.2	<.42	<.39	<.42	<.42	<.42			<1.2
8/29/2017	.53J	<.39	44.2	<.42	<.39	<.42	<.42	<.42			<1.2
11/13/2017	.67J	<.39	39.2	<.42	<.39	<.42	<.42	<.42			<1.2
5/7/2018	<.31	<.33	29.5	<.51	<.49	<.34	<.33	<.34			<.97
10/25/2018	<.31	<.33	26.5	<.51	<.49	<.34	<.33	<.34			<.97
5/16/2019	<.25	<.22	<1.2	<1.2	<.17	<.84	<.87	<1.71	<.47	<.26	<.73
<b>MW-10A</b>	<i>Installed 10/8/18</i>										
10/25/2018	<.31	<.33	.48J	<.51	<.49	<.34	<.33	<.34			<.97
5/16/2019	<.25	<.22	<1.2	<1.2	<.17	<.84	<.87	<1.71	<.47	<.26	<.73
<b>MW-10B</b>	<i>Installed 10/8/18</i>										
10/25/2018	<.31	<.33	6.9	<.51	<.49	<.34	<.33	<.34			<.97
5/16/2019	<.25	<.22	2.8J	<1.2	<.17	<.84	<.87	<1.71	<.47	<.26	<.73
<b>MW-11A</b>	<i>Installed 10/9/18</i>										
10/25/2018	<.31	<.33	<.32	<.51	<.49	<.34	<.33	<.34			<.97
5/16/2019	<.25	<.22	<1.2	<1.2	<.17	<.84	<.87	<1.71	<.47	<.26	<.73
<b>MW-11B</b>	<i>Installed 10/9/18</i>										
10/25/2018	<.31	<.33	<.32	<.51	<.49	<.34	<.33	<.34			<.97
5/16/2019	<.25	<.22	<1.2	<1.2	<.17	<.84	<.87	<1.71	<.47	<.26	<.73

**Table 2: Ground Water Elevations**

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Olson Goodman/Stetsonville

<b>MW-1 (installed October 16, 2015)</b>				<b>MW-1R (installed April 26, 2017)</b>		
Surface Elevation (ft)		98	Surface Elevation (ft)		101.75	
Top of Casing elevation (ft)		97.73	Top of Casing elevation (ft)		101.66	
Top of Screen Elevation (ft)		92.73	Top of Screen Elevation (ft)		96.75	
Bottom of Screen Elevation (ft)		82.73	Bottom of Screen Elevation (ft)		86.75	
Measurement Date	DTW (ft)	GW Elev (ft)	Measurement Date	DTW (ft)	GW Elev (ft)	
11/5/2015	4.42	93.31				
3/30/2016	3.78	93.95				
6/14/2016 (1 inch LNAPL)	3.1	94.63				
<b>10/31/16 Abandoned due to remedial excavation</b>			5/24/2017	0.74	100.92	
			8/29/2017	2.48	99.18	
			11/13/2017	2.58	99.08	
			Resurvey 5/7/18		101.44	
			5/7/2018	1.08	100.36	
			10/25/2018	2.11	99.33	
			5/16/2019	2.1	99.34	

<b>MW-2A (installed 4/24/17)</b>				<b>MW-2B (installed 4/24/17)</b>		
Surface Elevation (ft)		100.25	Surface Elevation (ft)		100.25	
Top of Casing elevation (ft)		100	Top of Casing elevation (ft)		99.96	
Top of Screen Elevation (ft)		95.25	Top of Screen Elevation (ft)		70.25	
Bottom of Screen Elevation (ft)		85.25	Bottom of Screen Elevation (ft)		65.25	
Measurement Date	DTW (ft)	GW Elev (ft)	Measurement Date	DTW (ft)	GW Elev (ft)	
5/24/2017	0.82	99.18	5/24/2017	1.71	98.25	
8/29/2017	2.46	97.54	8/29/2017	3.95	96.01	
11/13/2017	2.55	97.45	11/13/2017	3.3	96.66	
Resurvey 5/7/18		100	Resurvey 5/7/18		99.99	
5/7/2018	1.23	98.77	5/7/2018	2.7	97.29	
Resurvey 10/25/18		100	Resurvey 10/25/18		100	
10/25/2018	1.71	98.29	10/25/2018	2.87	97.13	
5/16/2019	1.22	98.78	5/16/2019	2.62	97.38	

<b>MW-3A (installed 4/25/17)</b>				<b>MW-3B (installed 4/25/17)</b>		
Surface Elevation (ft)		100.5	Surface Elevation (ft)		100.5	
Top of Casing elevation (ft)		100.22	Top of Casing elevation (ft)		99.02	
Top of Screen Elevation (ft)		95.5	Top of Screen Elevation (ft)		70.5	
Bottom of Screen Elevation (ft)		85.5	Bottom of Screen Elevation (ft)		65.5	
Measurement Date	DTW (ft)	GW Elev (ft)	Measurement Date	DTW (ft)	GW Elev (ft)	
5/24/2017	1.52	98.7	5/24/2017	1.74	97.28	
8/29/2017	3.37	96.85	8/29/2017	3.88	95.14	
11/13/2017	3.17	97.05	11/13/2017	3.3	95.72	
Resurvey 5/7/18		100.19	Resurvey 5/7/18		100.17	
5/7/2018	2.01	98.18	5/7/2018	2.54	97.63	
10/25/2018	2.51	97.68	10/25/2018	2.75	97.42	
5/16/2019	2.15	98.04	5/16/2019	2.51	97.66	

**Table 2: Ground Water Elevations**

Olson Goodman/Stetsonville

<b>MW-4 (installed 4/26/17)</b>			<b>MW-5 (installed 4/26/17)</b>		
Surface Elevation (ft)		101.25	Surface Elevation (ft)		100.75
Top of Casing elevation (ft)		100.94	Top of Casing elevation (ft)		100.46
Top of Screen Elevation (ft)		96.25	Top of Screen Elevation (ft)		95.75
Bottom of Screen Elevation (ft)		86.25	Bottom of Screen Elevation (ft)		85.75
Measurement Date	DTW (ft)	GW Elev (ft)	Measurement Date	DTW (ft)	GW Elev (ft)
5/24/2017	1.69	99.25	5/24/2017	0.48	99.98
8/29/2017	5.35	95.59	8/29/2017	1.42	99.04
11/13/2017	2.72	98.22	11/13/2017	1.6	98.86
Resurvey 5/7/18		100.85	Resurvey 5/7/18		100.27
5/7/2018	2.54	98.31	5/7/2018	1.53	98.74
10/25/2018	2.12	98.73	10/25/2018	1.38	98.89
5/16/2019	1.6	99.25	5/16/2019	1.45	98.82

<b>MW-7 (installed Feb. 20, 2008)(transferred from adjacent site - Ed's Service)</b>			<b>MW-7P (installed Jan. 22, 2010)(transferred from adjacent site - Ed's Service)</b>		
Surface Elevation (ft)		102.75	Surface Elevation (ft)		unsurveyed
Top of Casing elevation (ft)		102.47	Top of Casing elevation (ft)		
Top of Screen Elevation (ft)		97.75	Top of Screen Elevation (ft)		
Bottom of Screen Elevation (ft)		82.75	Bottom of Screen Elevation (ft)		
Measurement Date	DTW (ft)	GW Elev (ft)	Measurement Date	DTW (ft)	GW Elev (ft)
5/24/2017	1.06	101.41	5/24/2017	0.58	-0.58
8/29/2017	2.6	99.87	8/29/2017		
11/13/2017	2.54	99.93	11/13/2017		inaccessible
Resurvey 5/7/18		102.52	Resurvey 5/7/18		101.58
5/7/2018	1.6	100.92	5/7/2018	0.76	100.82
10/25/2018	2.07	100.45	10/25/2018		vehicle over well
5/16/2019	1.25	101.27	5/16/2019	0.54	101.04

<b>MW-9 (installed Jan. 22, 2010)(transferred from adjacent site - Ed's Service)</b>			<b>MW-9P (installed Jan. 22, 2010)(transferred from adjacent site - Ed's Service)</b>		
Surface Elevation (ft)		101	Surface Elevation (ft)		101
Top of Casing elevation (ft)		100.58	Top of Casing elevation (ft)		100.51
Top of Screen Elevation (ft)		96	Top of Screen Elevation (ft)		71
Bottom of Screen Elevation (ft)		81	Bottom of Screen Elevation (ft)		66
Measurement Date	DTW (ft)	GW Elev (ft)	Measurement Date	DTW (ft)	GW Elev (ft)
5/24/2017	1.81	98.77	5/24/2017	2.3	98.21
8/29/2017	3.96	96.62	8/29/2017	4.73	95.78
11/13/2017	3.23	97.35	11/13/2017	3.91	96.6
Resurvey 5/7/18		100.38	Resurvey 5/7/18		100.32
5/7/2018	2.41	97.97	5/7/2018	3.09	97.23
Resurvey 5/7/18		100.38	Resurvey 5/7/18		100.32
10/25/2018	2.66	97.72	10/25/2018	3.24	97.08
5/16/2019	2.29	98.09	5/16/2019	2.85	97.47

**Table 2: Ground Water Elevations**

Page 3 of 3

Olson Goodman/Stetsonville

<b>MW-10A (installed 10/8/18)</b>		<b>MW-10b (installed 10/8/18)</b>			
Surface Elevation (ft)	99.5	Surface Elevation (ft)	99.5		
Top of Casing elevation (ft)	99.37	Top of Casing elevation (ft)	99.42		
Top of Screen Elevation (ft)	94.5	Top of Screen Elevation (ft)	70.5		
Bottom of Screen Elevation (ft)	84.5	Bottom of Screen Elevation (ft)	65.5		
Measurement Date	DTW (ft)	GW Elev (ft)	Measurement Date		
10/25/2018	2.06	97.31	10/25/2018	2.57	96.85
5/16/2019	0.96	98.41	5/16/2019	2.22	97.2

<b>MW-11A (installed 10/9/18)</b>		<b>MW-11B (installed 10/9/18)</b>			
Surface Elevation (ft)	99.5	Surface Elevation (ft)	99.25		
Top of Casing elevation (ft)	99.37	Top of Casing elevation (ft)	99.17		
Top of Screen Elevation (ft)	94.5	Top of Screen Elevation (ft)	69		
Bottom of Screen Elevation (ft)	84.5	Bottom of Screen Elevation (ft)	64		
Measurement Date	DTW (ft)	GW Elev (ft)	Measurement Date		
10/25/2018	1.22	98.15	10/25/2018	2.25	96.92
5/16/2019	1.1	98.27	5/16/2019	2.25	96.92

**Table 3: Natural Attenuation Field Measurement**

Page 1 of 2

Olson Goodman/Stetsonville

Well	Date	DO	pH	Temp	Conductivity	ORP
		mg/l		°C	us	
<b>MW-1R</b>						
	5/24/2017	4	7.4	9.5	1214	-40
	8/29/2017	<<1	7.09	16.2	1188	-56
	11/13/2017	<<1	6.72	10.7	928	-66
	5/7/2018	1	7.45	10.7	1837	-77
	10/25/2018	<1	7.53	12.3	1362	12
	5/16/2019	1	7.28	10.9	902	-79
<b>MW-2A</b>						
	5/24/2017	<1	7.79	10.6	898	-22
	8/29/2017	<<1	7.13	18.8	805	-54
	11/13/2017	1	7.28	11.1	848	-77
	5/7/2018	<1	7.8	8	972	-127
	10/25/2018	1	7.3	13.2	839	18
	5/16/2019	2	7.71	10.3	827	-98
<b>MW-2B</b>						
	5/24/2017	<<1	7.55	10.9	681	-37
	8/29/2017	1	7.21	12.5	724	-49
	11/13/2017	1	7.37	10.2	694	-90
	5/7/2018	1	7.63	12	686	-107
	10/25/2018	1	7.41	10.8	706	59
	5/16/2019	4	7.68	12.3	689	-111
<b>MW-3A</b>						
	5/24/2017	2	7.58	10.9	584	-37
	8/29/2017	<<1	7.27	18.5	598	-56
	11/13/2017	<1	7.43	11.5	598	-68
	5/7/2018	1	8.2	11.4	621	-100
	10/25/2018	1	7.55	14.1	646	-52
	5/16/2019	<1	7.63	11	677	-92
<b>MW-3B</b>						
	5/24/2017	<<1	7.46	10.5	808	-33
	8/29/2017	1	7.25	13.7	834	-42
	11/13/2017	0	6.92	11.3	776	-128
	5/7/2018	1	7.67	13	784	-25
	10/25/2018	2	7.43	11.2	788	-45
	5/16/2019	1	7.61	12.5	815	-82
<b>MW-4</b>						
	5/24/2017	4	7.9	10.9	337	-33
	8/29/2017	0	7.41	17.8	419	-52
	11/13/2017	<<1	7.41	11.8	428	-133
	5/7/2018	1	8.13	10.8	382	-108
	10/25/2018	<1	7.42	13.1	453	62
	5/16/2019	<1	7.73	11.8	445	-84

**Table 3: Natural Attenuation Field Measurement**

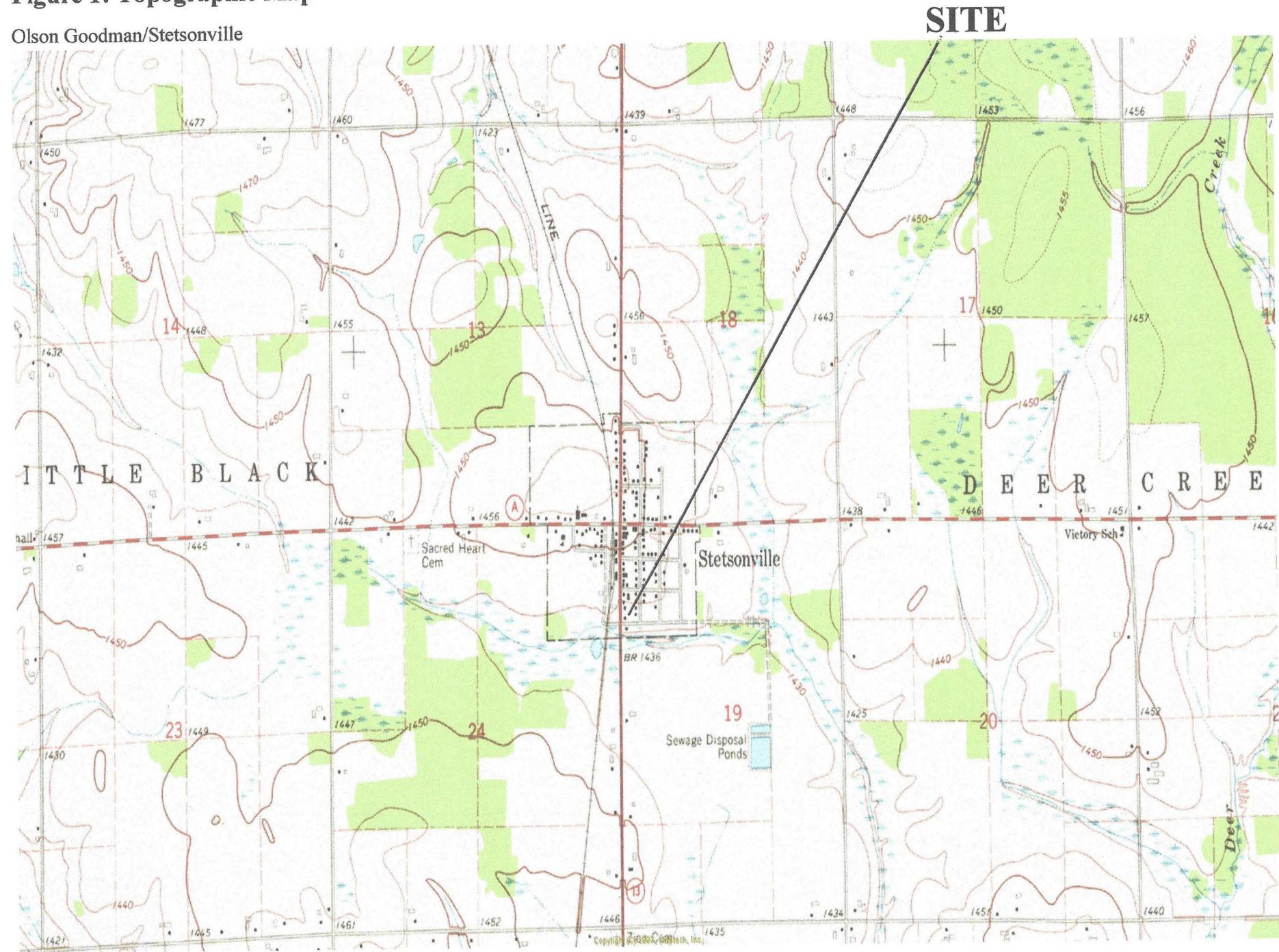
Olson Goodman/Stetsonville

Well	Date	DO	pH	Temp	Conductivity	ORP
		mg/l		°C	µS	
<b>MW-5</b>						
	5/24/2017	2	8.81	10.6	450	-66
	8/29/2017	2	6.82	20.2	523	-45
	11/13/2017	<<1	7.44	12.7	532	-132
	5/7/2018	2	7.77	9.7	528	-170
	10/25/2018	<1	7.63	12.4	543	-134
	5/16/2019	0	7.46	10.6	462	-114
<b>MW-7</b>						
	5/24/2017	<<1	7.17	11.3	1034	-29
	8/29/2017	1	6.77	18.2	1025	-31
	11/13/2017	<1	6.48	11.9	1108	-57
	5/7/2018	1	7.53	9.9	1097	-104
	10/25/2018	1	7.49	12.8	1039	-71
	5/16/2019	<1	7.29	8.8	1061	-122
<b>MW-7P</b>						
	5/24/2017	0	7.19	9.8	663	-49
	8/29/2017	vehicle parked over well				
	11/13/2017	vehicle parked over well				
	5/7/2018	1	7.87	11.4	1620	-135
	10/25/2018	vehicle over well				
	5/16/2019	2	7.82	13.3	764	-210
<b>MW-9</b>						
	5/24/2017	2	8.22	10.2	468	-38
	8/29/2017	<1	7.52	15.9	503	-84
	11/13/2017	<1	7.46	11.4	438	-95
	5/7/2018	2	7.91	10.7	494	-123
	10/25/2018	3	7.19	12.7	373	76
	5/16/2019	0	7.72	10.1	410	-99
<b>MW-9P</b>						
	5/24/2017	1	7.51	9.7	763	-7
	8/29/2017	<<1	7.44	13.8	774	-50
	11/13/2017	2	6.85	10.1	730	-54
	5/7/2018	1	7.93	13.3	732	-123
	10/25/2018	3	7.3	10.2	754	20
	5/16/2019	0	7.63	13	402	-89
<b>MW-10A</b>						
	10/25/2018	3	7.47	13	568	-122
	5/16/2019	2	7.64	10.6	574	-42
<b>MW-10B</b>						
	10/25/2018	2	7.6	10.6	769	37
	5/16/2019	1	7.31	15.2	764	-103
<b>MW-11A</b>						
	10/25/2018	1	7.56	12.3	514	33
	5/16/2019	1	8.04	10.7	553	-112
<b>MW-11B</b>						
	10/25/2018	<1	7.44	10.3	332	-125
	5/16/2019	1	7.82	12.4	325	-92

## **FIGURES**

**Figure 1: Topographic Map**

Olson Goodman/Stetsonville



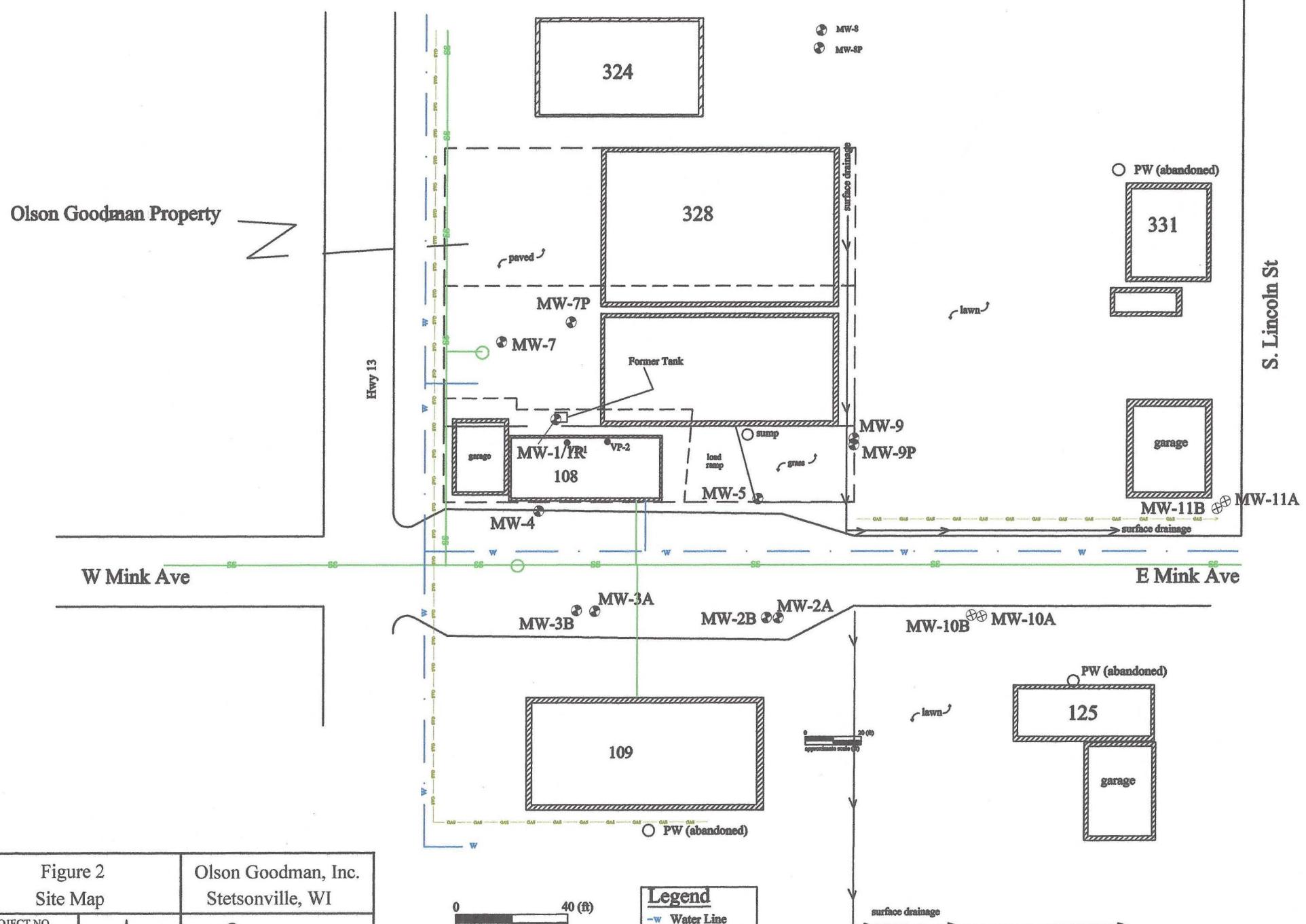


Figure 2  
Site Map

Olson Goodman, Inc.  
Stetsonville, WI

PROJECT NO.	05F807
DATE	7/10/19



## **APPENDIX A**

### **Monitoring Well Forms**

Facility/Project Name <i>Wilson Goodwin</i>	Local Grid Location of Well ft. N. <input type="checkbox"/> E. <input type="checkbox"/> ft. S. <input type="checkbox"/> W.	Well Name <b>MW-10A</b>
Facility License, Permit or Monitoring No.	Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/> Lat. _____ " Long. _____ "	Wis. Unique Well No. _____ DNR Well ID No. _____
Facility ID	St. Plane ft. N. _____ ft. E. _____ S/C/N _____	Date Well Installed <b>7/8/2018</b> m m d d y y y y
Type of Well	Section Location of Waste/Source 1/4 of _____ 1/4 of Sec. _____ T. _____ N. R. <input type="checkbox"/> E. <input type="checkbox"/> u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	Well Installed By: Name (first, last) and Firm <b>Joe Black</b> <b>PSI</b>
Distance from Waste/ Source ft.	Enf. Stds. Apply <input type="checkbox"/>	
A. Protective pipe, top elevation	0 ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation	0 ft. MSL	2. Protective cover pipe: a. Inside diameter: 3 in. b. Length: 1 ft. c. Material: Steel <input checked="" type="checkbox"/> 0.4 Other <input type="checkbox"/>
C. Land surface elevation	0 ft. MSL	d. Additional protection? If yes, describe: _____
D. Surface seal, bottom	ft. MSL or 1 ft.	3. Surfacc seal: Bentonite <input type="checkbox"/> 3.0 Concrete <input checked="" type="checkbox"/> 0.1 Other <input type="checkbox"/>
12. USCS classification of soil near screen:	GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input checked="" type="checkbox"/> MH <input type="checkbox"/> CL <input checked="" type="checkbox"/> CH <input type="checkbox"/> Bedrock <input type="checkbox"/>	4. Material between well casing and protective pipe: Bentonite <input checked="" type="checkbox"/> 3.0 Other <input type="checkbox"/>
13. Sieve analysis performed?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: a. Granular/Chipped Bentonite <input checked="" type="checkbox"/> 3.3 b. _____ Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 3.5 c. _____ Lbs/gal mud weight ..... Bentonite slurry <input type="checkbox"/> 3.1 d. _____ % Bentonite ..... Bentonite-cement grout <input type="checkbox"/> 5.0 e. _____ ft <sup>3</sup> volume added for any of the above
14. Drilling method used:	Rotary <input type="checkbox"/> 5.0 Hollow Stem Auger <input checked="" type="checkbox"/> 4.1 Other <input type="checkbox"/>	f. How installed: Tremie <input type="checkbox"/> 0.1 Tremie pumped <input type="checkbox"/> 0.2 Gravity <input checked="" type="checkbox"/> 0.8
15. Drilling fluid used: Water <input type="checkbox"/> 0.2 Air <input type="checkbox"/> 0.1 Drilling Mud <input type="checkbox"/> 0.3 None <input checked="" type="checkbox"/> 9.9	6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 3.3 b. <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite chips <input checked="" type="checkbox"/> 3.2 c. _____ Other <input type="checkbox"/>	
16. Drilling additives used?	<input type="checkbox"/> Yes <input type="checkbox"/> No	7. Fine sand material: Manufacturer, product name & mesh size a. _____ b. Volume added _____ ft <sup>3</sup>
Describe _____		8. Filter pack material: Manufacturer, product name & mesh size a. _____ b. Volume added _____ ft <sup>3</sup>
E. Bentonite seal, top	ft. MSL or 3 ft.	9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 2.3 Flush threaded PVC schedule 80 <input type="checkbox"/> 2.4 Other <input type="checkbox"/>
F. Fine sand, top	ft. MSL or 3 ft.	10. Screen material: a. Screen type: Factory cut <input checked="" type="checkbox"/> 1.1 Continuous slot <input type="checkbox"/> 0.1 Other <input type="checkbox"/>
G. Filter pack, top	ft. MSL or 4 ft.	
H. Screen joint, top	ft. MSL or 5 ft.	
I. Well bottom	ft. MSL or 15 ft.	
J. Filter pack, bottom	ft. MSL or 15 ft.	
K. Borehole, bottom	ft. MSL or 15 ft.	
L. Borehole, diameter	3 in.	
M. O.D. well casing	2 in.	
N. I.D. well casing	2 in.	

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

Signature *[Signature]* Firm *Mendan Environmental Consulting, LLC*

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

Route To: Watershed/Wastewater  Waste Management   
Remediation/Revitalization  Other  \_\_\_\_\_

Page 1 of 1

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

Signature

Firm

Meridian Environmental Assets, LLC

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

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

Facility/Project Name <i>Olson Goodman</i>	County Name <i>Taylor</i>	Well Name <i>MW-10A</i>
Facility License, Permit or Monitoring Number	County Code --	Wis. Unique Well Number --

1. Can this well be purged dry?  Yes  No

*bullets down*

2. Well development method

- surged with bailer and bailed  4 1
- surged with bailer and pumped  6 1
- surged with block and bailed  4 2
- surged with block and pumped  6 2
- surged with block, bailed and pumped  7 0
- compressed air  2 0
- bailed only  1 0
- pumped only  5 1
- pumped slowly  5 0
- Other \_\_\_\_\_

3. Time spent developing well

*~30* min.

4. Depth of well (from top of well casing)

*15* ft.

5. Inside diameter of well

*2* in.

6. Volume of water in filter pack and well casing

*~3* gal.

7. Volume of water removed from well

*10* gal.

8. Volume of water added (if any)

*—* gal.

9. Source of water added \_\_\_\_\_

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

17. Additional comments on development:

Before Development After Development

11. Depth to Water  
(from top of well casing)  
a. *0.83* ft. *13.6* ft.

Date *10/13/2018* b. *m m / d d / y y y y* *10/13/2018* *m m / d d / y y y y*

Time c. *— : —* a.m. *— : —* p.m. *— : —* a.m. *— : —* p.m.

12. Sediment in well bottom *0* inches *0* inches

13. Water clarity Clear  10 Turbid  15 (Describe) *cloudy*

Clear  20 Turbid  25 (Describe) *cloudy*

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

14. Total suspended *—* mg/l *—* mg/l solids

15. COD *—* mg/l *—* mg/l

16. Well developed by: Name (first, last) and Firm

First Name: *Ken* Last Name: *Shimko*

Firm: *Mendian Env. Ctg, LLC*

Name and Address of Facility Contact /Owner/Responsible Party  
First Name: *Ken* Last Name: *Shimko*

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

Facility/Firm: *Mendian Env. Ctg, LLC*

Signature: *JTJ*

Street: *2711 N. FELCO RD*

Print Name: *Ken Shimko*

City/State/Zip: *Fall Creek, WI 54742*

Firm: *Mendian Env. Ctg, LLC*

Facility/Project Name		Remediation/Redevelopment		Other	
<b>Olson Goodman</b>		Local Grid Location of Well ft. N. _____ ft. E. _____ ft. S. _____ ft. W. _____		Well Name <b>MW-10B</b>	
Facility License, Permit or Monitoring No.		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/> Lat. _____ Long. _____ or St. Plane _____ ft. N. _____ ft. E. S/C/N		Wis. Unique Well No. <b>101812015</b> DNR Well ID No. _____	
Facility ID		Section Location of Waste/Source 1/4 of _____ 1/4 of Sec. _____ T. _____ N. R. <input type="checkbox"/> E <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known		Date Well Installed <b>10/8/2015</b>	
Type of Well		Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known		Well Installed By: Name (first, last) and Firm <b>Joe Black</b> <b>PSI</b>	
Well Code _____ /		Gov. Lot Number _____			
Distance from Waste/Source _____ ft.		Enf. Stds. Apply <input type="checkbox"/>			
A. Protective pipe, top elevation _____ ft. MSL		1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
B. Well casing, top elevation _____ ft. MSL		2. Protective cover pipe: a. Inside diameter: <b>6</b> in. b. Length: <b>1</b> ft. c. Material: Steel <input checked="" type="checkbox"/> 0.4 Other <input type="checkbox"/>			
C. Land surface elevation _____ ft. MSL		d. Additional protection? If yes, describe: _____			
D. Surface seal, bottom _____ ft. MSL or _____ ft.		3. Surface seal: Bentonite <input type="checkbox"/> 3.0 Concrete <input checked="" type="checkbox"/> 0.1 Other <input type="checkbox"/>			
12. USCS classification of soil near screen: GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input checked="" type="checkbox"/> MH <input type="checkbox"/> CL <input checked="" type="checkbox"/> CH <input type="checkbox"/> Bedrock <input type="checkbox"/>		4. Material between well casing and protective pipe: Bentonite <input checked="" type="checkbox"/> 3.0 Other <input type="checkbox"/>			
13. Sieve analysis performed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		5. Annular space seal: a. Granular/Chipped Bentonite <input type="checkbox"/> 3.3 b. _____ Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 3.5 c. _____ Lbs/gal mud weight .... Bentonite slurry <input checked="" type="checkbox"/> 3.1 d. _____ % Bentonite ..... Bentonite-cement grout <input type="checkbox"/> 5.0 e. _____ ft <sup>3</sup> volume added for any of the above			
14. Drilling method used: Rotary <input type="checkbox"/> 5.1 Hollow Stem Auger <input checked="" type="checkbox"/> 4.1 Other <input type="checkbox"/>		f. How installed: Tremie <input type="checkbox"/> 0.1 Tremie pumped <input checked="" type="checkbox"/> 0.2 Gravity <input type="checkbox"/> 0.8 Other <input type="checkbox"/>			
15. Drilling fluid used: Water <input type="checkbox"/> 0.2 Air <input type="checkbox"/> 0.1 Drilling Mud <input type="checkbox"/> 0.3 None <input checked="" type="checkbox"/> 9.9		6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 3.3 b. <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite chips <input type="checkbox"/> 3.2 c. <u>Slurry</u> Other <input type="checkbox"/>			
16. Drilling additives used? <input type="checkbox"/> Yes <input type="checkbox"/> No  Describe _____		7. Fine sand material: Manufacturer, product name & mesh size a. _____ b. Volume added _____ ft <sup>3</sup>			
17. Source of water (attach analysis, if required):  _____		8. Filter pack material: Manufacturer, product name & mesh size a. _____ b. Volume added _____ ft <sup>3</sup>			
E. Bentonite seal, top _____ ft. MSL or <b>26</b> ft.		9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 2.3 Flush threaded PVC schedule 80 <input type="checkbox"/> 2.4 Other <input type="checkbox"/>			
F. Fine sand, top _____ ft. MSL or <b>26</b> ft.		10. Screen material: a. Screen type: Factory cut <input checked="" type="checkbox"/> 1.1 Continuous slot <input type="checkbox"/> 0.1 Other <input type="checkbox"/>			
G. Filter pack, top _____ ft. MSL or <b>27</b> ft.		b. Manufacturer _____ c. Slot size: _____ d. Slotted length: _____			
H. Screen joint, top _____ ft. MSL or <b>29</b> ft.		11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> 1.4 Other <input type="checkbox"/>			
I. Well bottom _____ ft. MSL or <b>34</b> ft.					
J. Filter pack, bottom _____ ft. MSL or <b>34</b> ft.					
K. Borehole, bottom _____ ft. MSL or <b>34</b> ft.					
L. Borehole, diameter _____ in.					
M. O.D. well casing _____ in.					
N. I.D. well casing <b>2 1/2</b> in.					

The diagram illustrates a vertical borehole with the following components and depths:

- A:** Protective pipe, top elevation at 0 ft. MSL.
- B:** Well casing, top elevation at 0 ft. MSL.
- C:** Land surface elevation at 0 ft. MSL.
- D:** Surface seal, bottom at 1 ft. MSL or 0 ft. MSL.
- E:** Bentonite seal, top at 26 ft. MSL or 0 ft. MSL.
- F:** Fine sand, top at 26 ft. MSL or 0 ft. MSL.
- G:** Filter pack, top at 27 ft. MSL or 0 ft. MSL.
- H:** Screen joint, top at 29 ft. MSL or 0 ft. MSL.
- I:** Well bottom at 34 ft. MSL or 0 ft. MSL.
- J:** Filter pack, bottom at 34 ft. MSL or 0 ft. MSL.
- K:** Borehole, bottom at 34 ft. MSL or 0 ft. MSL.
- L:** Borehole, diameter at 8 in.
- M:** O.D. well casing at 2 in.
- N:** I.D. well casing at 2 1/2 in.

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

Signature

Firm

<sup>im</sup>  
Men-dian Environmental Consulting, LLC

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

Route To: Watershed/Wastewater  Waste Management   
Remediation/Development  Other

Page 1 of 1

Facility/Project Name <u>Olson Goodman</u>			License/Permit/Monitoring Number		Boring Number <u>MW-10B</u>
Boring Drilled By: Name of crew chief (first, last) and Firm First Name: <u>JOE</u> Last Name: <u>BLACK</u> Firm: <u>PSI</u>			Date Drilling Started <u>10/8/2018</u>	Date Drilling Completed <u>10/8/2018</u>	Drilling Method <u>H.S.A</u>
WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level Feet MSL	Surface Elevation Feet MSL	Borehole Diameter inches
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/> State Plane _____ N, _____ E			Lat <u>0° 0' 0"</u>	Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E	Long <u>0° 0' 0"</u> Feet <input type="checkbox"/> S Feet <input type="checkbox"/> W
1/4 of _____	1/4 of Section _____	T _____ N, R _____			
Facility ID	County <u>Taylor</u>	County Code	Civil Town/City/ or Village <u>Setonville</u>		

Number and Type	Sample	Length Att. & Recovered (in)	Depth in Feet (Below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	Soil Properties				P 200	RQD/ Comments
								PID/FID	Compressive Strength	Moisture Content	Liquid Limit		
				gravel road base									
			0'	gray clay w/ f. sand, silt.						moist			
			10'	gray clay w/ silt & f. sand moist - wet						m/w			
			20'	gray Floc-med. sand well sorted, wet blowing in air						wet			
			30'	Clay w/ f. sand	29	1111	2" PVC						
				EOP = 34 ft.	34	1111							

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

Signature

Firm

Meridian Environmental Assets, LLC

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

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

Facility/Project Name <i>Olson Goodman</i>	County Name <i>Taylor</i>	Well Name <i>MW-10B</i>
Facility License, Permit or Monitoring Number	County Code —	Wis. Unique Well Number —

1. Can this well be purged dry?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	11. Depth to Water (from top of well casing)	Before Development a. <u>1.76</u> ft.	After Development a. <u>26.50</u> ft.
2. Well development method		Date	b. <u>10/13/2018</u>	<u>10/13/2018</u>
surged with bailer and bailed	<input checked="" type="checkbox"/> 41	m m d d y y y y	m m d d y y y y	
surged with bailer and pumped	<input type="checkbox"/> 61			
surged with block and bailed	<input type="checkbox"/> 42			
surged with block and pumped	<input type="checkbox"/> 62			
surged with block, bailed and pumped	<input type="checkbox"/> 70			
compressed air	<input type="checkbox"/> 20			
bailed only	<input type="checkbox"/> 10			
pumped only	<input type="checkbox"/> 51			
pumped slowly	<input type="checkbox"/> 50			
Other _____	<input type="checkbox"/> _____			
3. Time spent developing well	<u>130</u> min.	12. Sediment in well bottom	<u>0</u> inches	<u>0</u> inches
4. Depth of well (from top of well casisng)	<u>34</u> ft.	13. Water clarity	Clear <input type="checkbox"/> 1.0 Turbid <input checked="" type="checkbox"/> 1.5 (Describe) _____	Clear <input type="checkbox"/> 2.0 Turbid <input type="checkbox"/> 2.5 (Describe) <u>cloudy</u>
5. Inside diameter of well	<u>20</u> in.	Fill in if drilling fluids were used and well is at solid waste facility:		
6. Volume of water in filter pack and well casing	<u>16</u> gal.	14. Total suspended solids	<u>—</u> mg/l	<u>—</u> mg/l
7. Volume of water removed from well	<u>10</u> gal.	15. COD	<u>—</u> mg/l	<u>—</u> mg/l
8. Volume of water added (if any)	<u>—</u> gal.	16. Well developed by: Name (first, last) and Firm		
9. Source of water added _____		First Name: <u>Ken</u> Last Name: <u>Shimko</u>		
10. Analysis performed on water added? (If yes, attach results)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Firm: <u>Mendian Env. Ctlg, LLC</u>		
17. Additional comments on development:				

Name and Address of Facility Contact /Owner/Responsible Party First Name: <u>Ken</u> Last Name: <u>Shimko</u>	I hereby certify that the above information is true and correct to the best of my knowledge.
Facility/Firm: <u>Mendian Env. Ctlg, LLC</u>	Signature: <u>MJ</u>
Street: <u>2711 N. FELLO RD</u>	Print Name: <u>Ken Shimko</u>
City/State/Zip: <u>Fall Creek, WI 54742</u>	Firm: <u>Mendian Env. Ctlg, LLC</u>

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

Facility/Project Name <i>Wilson Goodman</i>	Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name <i>MW-11A</i>
Facility License, Permit or Monitoring No.	Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/> Lat. _____ " Long. _____ "	Wis. Unique Well No. _____ DNR Well ID No. _____
Facility ID	St. Plane ft. N. _____ ft. E. _____ S/C/N _____	Date Well Installed <i>9/1/2018</i> m m d d y y y y
Type of Well	Section Location of Waste/Source 1/4 of _____ 1/4 of Sec. _____ T. _____ N. R. <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: Name (first, last) and Firm <i>Joe Black</i> <i>PSI</i>
Distance from Waste/Source ft.	Enf. Stds. Apply <input type="checkbox"/>	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known Gov. Lot Number _____
A. Protective pipe, top elevation	0 ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation	0 ft. MSL	2. Protective cover pipe: a. Inside diameter: 3 in. b. Length: 1 ft. c. Material: Steel <input checked="" type="checkbox"/> 0.4 Other <input type="checkbox"/> <input type="checkbox"/> Yes <input type="checkbox"/> No
C. Land surface elevation	0 ft. MSL	3. Surface seal: Bentonite <input type="checkbox"/> 3.0 Concrete <input checked="" type="checkbox"/> 0.1 Other <input type="checkbox"/>
D. Surface seal, bottom	ft. MSL or 1 ft.	4. Material between well casing and protective pipe: Bentonite <input checked="" type="checkbox"/> 3.0 Other <input type="checkbox"/>
12. USCS classification of soil near screen: GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input checked="" type="checkbox"/> CL <input checked="" type="checkbox"/> CH <input type="checkbox"/> Bedrock <input type="checkbox"/>		5. Annular space seal: a. Granular/Chipped Bentonite <input checked="" type="checkbox"/> 3.3 b. ____ Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 3.5 c. ____ Lbs/gal mud weight ..... Bentonite slurry <input type="checkbox"/> 3.1 d. ____ % Bentonite ..... Bentonite-cement grout <input type="checkbox"/> 5.0 e. ____ Ft <sup>3</sup> volume added for any of the above f. How installed: Tremie <input type="checkbox"/> 0.1 Tremie pumped <input type="checkbox"/> 0.2 Gravity <input checked="" type="checkbox"/> 0.8
13. Sieve analysis performed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 3.3 b. <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite chips <input checked="" type="checkbox"/> 3.2 c. Other <input type="checkbox"/>
14. Drilling method used: Rotary <input type="checkbox"/> 5.0 Hollow Stem Auger <input checked="" type="checkbox"/> 4.1 Other <input type="checkbox"/>		7. Fine sand material: Manufacturer, product name & mesh size a. _____ b. Volume added _____ ft <sup>3</sup>
15. Drilling fluid used: Water <input type="checkbox"/> 0.2 Air <input type="checkbox"/> 0.1 Drilling Mud <input type="checkbox"/> 0.3 None <input checked="" type="checkbox"/> 9.9		8. Filter pack material: Manufacturer, product name & mesh size a. _____ b. Volume added _____ ft <sup>3</sup>
16. Drilling additives used? <input type="checkbox"/> Yes <input type="checkbox"/> No Describe _____		9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 2.3 Flush threaded PVC schedule 80 <input type="checkbox"/> 2.4 Other <input type="checkbox"/>
17. Source of water (attach analysis, if required): _____		10. Screen material: a. Screen type: Factory cut <input type="checkbox"/> 1.1 Continuous slot <input type="checkbox"/> 0.1 Other <input type="checkbox"/> b. Manufacturer _____ c. Slot size: 0.1 in. d. Slotted length: 10 ft.
E. Bentonite seal, top	ft. MSL or 3 ft.	11. Backfill material (below filter pack): Nonc <input checked="" type="checkbox"/> 1.4 Other <input type="checkbox"/>
F. Fine sand, top	ft. MSL or 3 ft.	
G. Filter pack, top	ft. MSL or 4 ft.	
H. Screen joint, top	ft. MSL or 5 ft.	
I. Well bottom	ft. MSL or 15 ft.	
J. Filter pack, bottom	ft. MSL or 15 ft.	
K. Borehole, bottom	ft. MSL or 15 ft.	
L. Borehole, diameter	8 in.	
M. O.D. well casing	2 in.	
N. I.D. well casing	2 in.	

The diagram illustrates a vertical monitoring well borehole. At the top, there is a protective pipe assembly consisting of a cap and lock, followed by a protective cover pipe (3 inches in diameter) and a well casing (1/2 inch thick). Below the well casing is a 1/4-inch annular space seal. The borehole contains a filter pack (4 feet thick), a screen joint (5 feet thick), and a well bottom (15 feet thick). The borehole has a diameter of 8 inches and is cased to a depth of 15 feet. The well casing is 2 inches in diameter and the inner diameter (I.D.) is 2 inches. The entire well is located at a land surface elevation of 0 ft. MSL.

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

Signature

Firm *Mandan Environmental Consulting, LLC*

Route To: Watershed/Wastewater  Waste Management   
Remediation/Development  Other

Page 1 of 1

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

Signature

Firm

<sup>™</sup> Meridian Environmental Group, LLC

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Route to: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other \_\_\_\_\_

Facility/Project Name <i>Olson Goodman</i>	County Name <i>Taylor</i>	Well Name <i>MW-11A</i>
Facility License, Permit or Monitoring Number	County Code ____	Wis. Unique Well Number ____

1. Can this well be purged dry?  Yes  No

2. Well development method

- surged with bailer and bailed
- surged with bailer and pumped
- surged with block and bailed
- surged with block and pumped
- surged with block, bailed and pumped
- compressed air
- bailed only
- pumped only
- pumped slowly
- Other \_\_\_\_\_

- 4 1
- 6 1
- 4 2
- 6 2
- 7 0
- 2 0
- 1 0
- 5 1
- 5 0
- Other \_\_\_\_\_

3. Time spent developing well 30 min.

4. Depth of well (from top of well casisng) 15 ft.

5. Inside diameter of well 2 in.

6. Volume of water in filter pack and well casing 13 gal.

7. Volume of water removed from well 12 gal.

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

9. Source of water added \_\_\_\_\_

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

17. Additional comments on development:

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. <u>0</u> . <u>83</u> ft.	<u>13</u> ft.
Date	b. <u>10</u> / <u>13</u> / <u>2018</u>	<u>10</u> / <u>13</u> / <u>2018</u>
Time	c. ____ : ____ a.m. <input type="checkbox"/> a.m. ____ : ____ p.m. <input type="checkbox"/> p.m.	____ : ____ a.m. <input type="checkbox"/> a.m. ____ : ____ p.m. <input type="checkbox"/> p.m.
12. Sediment in well bottom	<u>0</u> inches	<u>0</u> inches
13. Water clarity	Clear <input type="checkbox"/> 1 0 Turbid <input checked="" type="checkbox"/> 1 5 (Describe)	Clear <input type="checkbox"/> 2 0 Turbid <input type="checkbox"/> 2 5 (Describe) <u>cloudy</u>
14. Total suspended solids	— mg/l	— mg/l
15. COD	— mg/l	— mg/l
16. Well developed by: Name (first, last) and Firm	Fill in if drilling fluids were used and well is at solid waste facility:	
First Name: <u>Ken</u>	Last Name: <u>Shimko</u>	Firm: <u>Mendian Env. Ctry, LLC</u>

Name and Address of Facility Contact/Owner/Responsible Party
First Name: <u>Ken</u> Last Name: <u>Shimko</u>
Facility/Firm: <u>Mendian Env. Ctry, LLC</u>
Street: <u>2711 N. Fairo Rd</u>
City/State/Zip: <u>Fall Creek, WI 54742</u>

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

Signature: AJ  
Print Name: Ken Shimko  
Firm: Mendian Env. Ctry, LLC

Facility/Project Name <i>Wilson Goodwin</i>	Local Grid Location of Well ft. <input type="checkbox"/> N. _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> W.	Well Name <i>MW-11B</i>
Facility License, Permit or Monitoring No.	Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/> Lat. _____ " Long. _____ "	Wis. Unique Well No. _____ DNR Well ID No. _____
Facility ID	St. Plane _____ ft. N. _____ ft. E. S/C/N	Date Well Installed <i>10/9/2018</i>
Type of Well	Section Location of Waste/Source 1/4 of _____ 1/4 of Sec. _____ T. _____ N. R. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Installed By: Name (first, last) and Firm <i>Joe Black</i> <i>PSI</i>
Distance from Waste/ Source ft.	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	Gov. Lot Number _____
Enf. Stds. Apply <input type="checkbox"/>		
A. Protective pipe, top elevation	0 ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation	0 ft. MSL	2. Protective cover pipe: a. Inside diameter: <i>3</i> in. b. Length: <i>1</i> ft. c. Material: Steel <input checked="" type="checkbox"/> 0.4 Other <input type="checkbox"/>
C. Land surface elevation	0 ft. MSL	d. Additional protection? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: _____
D. Surface seal, bottom	1 ft. MSL or _____ ft.	3. Surface seal: Bentonite <input type="checkbox"/> 3.0 Concrete <input checked="" type="checkbox"/> 0.1 Other <input type="checkbox"/>
12. USCS classification of soil near screen: GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input checked="" type="checkbox"/> CL <input checked="" type="checkbox"/> CH <input type="checkbox"/> Bedrock <input type="checkbox"/>		4. Material between well casing and protective pipe: Bentonite <input checked="" type="checkbox"/> 3.0 Other <input type="checkbox"/>
13. Sieve analysis performed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		5. Annular space seal: a. Granular/Chipped Bentonite <input type="checkbox"/> 3.3 b. _____ Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 3.5 c. _____ Lbs/gal mud weight ..... Bentonite slurry <input checked="" type="checkbox"/> 3.1 d. _____ % Bentonite ..... Bentonite-cement grout <input type="checkbox"/> 5.0 e. _____ ft <sup>3</sup> volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 5.0 Hollow Stem Auger <input checked="" type="checkbox"/> 4.1 Other <input type="checkbox"/>		f. How installed: Tremie <input type="checkbox"/> 0.1 Tremie pumped <input checked="" type="checkbox"/> 0.2 Gravity <input type="checkbox"/> 0.8
15. Drilling fluid used: Water <input type="checkbox"/> 0.2 Air <input type="checkbox"/> 0.1 Drilling Mud <input type="checkbox"/> 0.3 None <input checked="" type="checkbox"/> 9.9		6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 3.3 b. <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite chips <input type="checkbox"/> 3.2 c. _____ Slurry <input checked="" type="checkbox"/> Other <input type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input type="checkbox"/> No Describe _____		7. Fine sand material: Manufacturer, product name & mesh size a. _____ b. Volume added _____ ft <sup>3</sup>
17. Source of water (attach analysis, if required): _____		8. Filter pack material: Manufacturer, product name & mesh size a. _____ b. Volume added _____ ft <sup>3</sup>
E. Bentonite seal, top _____ ft. MSL or <i>27</i> ft.		9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 2.3 Flush threaded PVC schedule 80 <input type="checkbox"/> 2.4 Other <input type="checkbox"/>
F. Fine sand, top _____ ft. MSL or <i>27</i> ft.		10. Screen material: a. Screen type: Factory cut <input checked="" type="checkbox"/> 1.1 Continuous slot <input type="checkbox"/> 0.1 Other <input type="checkbox"/>
G. Filter pack, top _____ ft. MSL or <i>28</i> ft.		b. Manufacturer _____ c. Slot size: <i>0.1</i> in. d. Slotted length: <i>5</i> ft.
H. Screen joint, top _____ ft. MSL or <i>30</i> ft.		
I. Well bottom _____ ft. MSL or <i>35</i> ft.		
J. Filter pack, bottom _____ ft. MSL or <i>35</i> ft.		
K. Borehole, bottom _____ ft. MSL or <i>35</i> ft.		
L. Borehole, diameter <i>8</i> in.		
M. O.D. well casing <i>2</i> in.		
N. I.D. well casing <i>2</i> in.		

The diagram illustrates the cross-section of a monitoring well. It shows a borehole with a diameter of 8 inches. At the bottom, there is a filter pack and a well screen. Above the screen, the borehole is sealed with bentonite. The well casing has an outside diameter of 2 inches and an inside diameter of 2 inches. The annular space between the borehole and the well casing is filled with fine sand. The top of the well is sealed with a bentonite seal. The entire well is surrounded by backfill material.

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

Signature *[Signature]*

Firm *Mendan Environmental Consulting, LLC*

Route To: Watershed/Wastewater  Waste Management   
Remediation/Development  Other

Page 1 of 1

Facility/Project Name <u>Wilson Goodman</u>			License/Permit/Monitoring Number		Boring Number <u>MW-11B</u>
Boring Drilled By: Name of crew chief (first, last) and Firm First Name: <u>JOE</u> Last Name: <u>BLACK</u> Firm: <u>PSI</u>			Date Drilling Started <u>10/9/2018</u> <u>m m d d y y y y</u>	Date Drilling Completed <u>10/9/2018</u> <u>m m d d y y y y</u>	Drilling Method <u>HSA</u>
WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level Feet MSL	Surface Elevation Feet MSL	Borehole Diameter inches
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/> State Plane _____ N. _____ E			Lat <u>0° 0' "</u>	Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E	
1/4 of _____ 1/4 of Section _____, T _____ N, R _____			Long <u>0° 0' "</u>	Feet <input type="checkbox"/> S <input type="checkbox"/> W	Feet <input type="checkbox"/> W
Facility ID	County <u>Taylor</u>	County Code	Civil Town/City/ or Village <u>Setsontowne</u>		

Number and Type	Sample	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (Below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log Well Diagram	P/LD/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
					<u>Lawn</u>									
				1'	brown silty sand w/ clay.									
				10'	gray clay w/ f. sand									
				1'	gray clay w/ f. sand 1" lens of sand									
				20'	gray clay w/ f. sand									
				1'	gray F-med. sand, blowing in air.									
				30'	gray clay w/ f. sand	30		2"						
				40'		35								
					EOB = 35 ft.									

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

Signature

Firm

Meridian Environmental Assets, LLC

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

Route to: Watershed/Wastewater  Waste Management

Remediation/Redevelopment  Other \_\_\_\_\_

Facility/Project Name <i>Olson Goodman</i>	County Name <i>Taylor</i>	Well Name <i>MW-11B</i>
Facility License, Permit or Monitoring Number	County Code --	Wis. Unique Well Number -----

1. Can this well be purged dry?  Yes  No

2. Well development method

- surged with bailer and bailed
- surged with bailer and pumped
- surged with block and bailed
- surged with block and pumped
- surged with block, bailed and pumped
- compressed air
- bailed only
- pumped only
- pumped slowly
- Other \_\_\_\_\_

3. Time spent developing well 30 min.

4. Depth of well (from top of well casing) 35 ft.

5. Inside diameter of well 2 in.

6. Volume of water in filter pack and well casing 16 gal.

7. Volume of water removed from well 15 gal.

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

9. Source of water added \_\_\_\_\_

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

17. Additional comments on development:

Before Development After Development

11. Depth to Water  
(from top of well casing)  
a. 1.87 ft. 29 ft.

Date b. 10/13/2018 10/13/2018  
m m d d y y y y m m d d y y y y

Time c. —:— a.m. —:— p.m. —:— a.m. —:— p.m.

12. Sediment in well bottom 0 inches 0 inches

13. Water clarity Clear  1.0  
Turbid  1.5  
(Describe) cloudy

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

14. Total suspended — mg/l — mg/l  
solids

15. COD — mg/l — mg/l

16. Well developed by: Name (first, last) and Firm

First Name: Ken Last Name: Shimko

Firm: Mendan Env. Ctg, LLC

Name and Address of Facility Contact /Owner/Responsible Party  
First Name: Ken Last Name: Shimko

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

Facility/Firm: Mendan Env. Ctg, LLC

Signature: KJ

Street: 2711 N. Fallow Rd

Print Name: Ken Shimko

City/State/Zip: Fall Creek, WI  
54742

Firm: Mendan Env. Ctg, LLC

## **APPENDIX B**

### **Laboratory Analytical Reports**

November 02, 2018

Kenneth Shimko  
Meridian Environmental Consulting, LLC  
2711 North Elco Rd  
Fall Creek, WI 54742

RE: Project: OLSON GOODMAN  
Pace Project No.: 40178634

Dear Kenneth Shimko:

Enclosed are the analytical results for sample(s) received by the laboratory on October 30, 2018. 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,



Brian Basten  
brian.basten@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: OLSON GOODMAN  
Pace Project No.: 40178634

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### 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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## SAMPLE SUMMARY

Project: OLSON GOODMAN  
Pace Project No.: 40178634

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40178634001	MW-1	Water	10/25/18 00:00	10/30/18 09:20
40178634002	MW-2A	Water	10/25/18 00:00	10/30/18 09:20
40178634003	MW-2B	Water	10/25/18 00:00	10/30/18 09:20
40178634004	MW-3A	Water	10/25/18 00:00	10/30/18 09:20
40178634005	MW-3B	Water	10/25/18 00:00	10/30/18 09:20
40178634006	MW-4	Water	10/25/18 00:00	10/30/18 09:20
40178634007	MW-5	Water	10/25/18 00:00	10/30/18 09:20
40178634008	MW-7	Water	10/25/18 00:00	10/30/18 09:20
40178634009	MW-9	Water	10/25/18 00:00	10/30/18 09:20
40178634010	MW-9P	Water	10/25/18 00:00	10/30/18 09:20
40178634011	MW-10A	Water	10/25/18 00:00	10/30/18 09:20
40178634012	MW-10B	Water	10/25/18 00:00	10/30/18 09:20
40178634013	MW-11A	Water	10/25/18 00:00	10/30/18 09:20
40178634014	MW-11B	Water	10/25/18 00:00	10/30/18 09:20
40178634015	TRIP BLANK	Water	10/25/18 00:00	10/30/18 09:20

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: OLSON GOODMAN  
Pace Project No.: 40178634

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40178634001	MW-1	WI MOD GRO	ALD	9	PASI-G
40178634002	MW-2A	WI MOD GRO	ALD	9	PASI-G
40178634003	MW-2B	WI MOD GRO	ALD	9	PASI-G
40178634004	MW-3A	WI MOD GRO	ALD	9	PASI-G
40178634005	MW-3B	WI MOD GRO	ALD	9	PASI-G
40178634006	MW-4	WI MOD GRO	ALD	9	PASI-G
40178634007	MW-5	WI MOD GRO	ALD	9	PASI-G
40178634008	MW-7	WI MOD GRO	ALD	9	PASI-G
40178634009	MW-9	WI MOD GRO	ALD	9	PASI-G
40178634010	MW-9P	WI MOD GRO	ALD	9	PASI-G
40178634011	MW-10A	WI MOD GRO	ALD	9	PASI-G
40178634012	MW-10B	WI MOD GRO	ALD	9	PASI-G
40178634013	MW-11A	WI MOD GRO	ALD	9	PASI-G
40178634014	MW-11B	WI MOD GRO	ALD	9	PASI-G
40178634015	TRIP BLANK	WI MOD GRO	ALD	9	PASI-G

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## PROJECT NARRATIVE

Project: OLSON GOODMAN  
Pace Project No.: 40178634

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**Method:** WI MOD GRO  
**Description:** WIGRO GCV  
**Client:** Meridian Environmental Consulting, LLC  
**Date:** November 02, 2018

**General Information:**

15 samples were analyzed for WI MOD GRO. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: OLSON GOODMAN  
Pace Project No.: 40178634

Sample: MW-1	Lab ID: 40178634001	Collected: 10/25/18 00:00	Received: 10/30/18 09:20	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO								
Benzene	<0.31	ug/L	1.0	0.31	1		10/31/18 10:55	71-43-2	
Ethylbenzene	<0.33	ug/L	1.1	0.33	1		10/31/18 10:55	100-41-4	
Methyl-tert-butyl ether	<0.32	ug/L	1.1	0.32	1		10/31/18 10:55	1634-04-4	
Naphthalene	<0.51	ug/L	1.7	0.51	1		10/31/18 10:55	91-20-3	
Toluene	<0.49	ug/L	1.6	0.49	1		10/31/18 10:55	108-88-3	
1,2,4-Trimethylbenzene	<0.34	ug/L	1.1	0.34	1		10/31/18 10:55	95-63-6	
1,3,5-Trimethylbenzene	<0.33	ug/L	1.1	0.33	1		10/31/18 10:55	108-67-8	
Xylene (Total)	<0.97	ug/L	3.2	0.97	1		10/31/18 10:55	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	101	%	80-120		1		10/31/18 10:55	98-08-8	
<hr/>									
Sample: MW-2A	Lab ID: 40178634002	Collected: 10/25/18 00:00	Received: 10/30/18 09:20	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO								
Benzene	<0.31	ug/L	1.0	0.31	1		10/31/18 11:20	71-43-2	
Ethylbenzene	<0.33	ug/L	1.1	0.33	1		10/31/18 11:20	100-41-4	
Methyl-tert-butyl ether	0.82J	ug/L	1.1	0.32	1		10/31/18 11:20	1634-04-4	
Naphthalene	<0.51	ug/L	1.7	0.51	1		10/31/18 11:20	91-20-3	
Toluene	<0.49	ug/L	1.6	0.49	1		10/31/18 11:20	108-88-3	
1,2,4-Trimethylbenzene	<0.34	ug/L	1.1	0.34	1		10/31/18 11:20	95-63-6	
1,3,5-Trimethylbenzene	<0.33	ug/L	1.1	0.33	1		10/31/18 11:20	108-67-8	
Xylene (Total)	<0.97	ug/L	3.2	0.97	1		10/31/18 11:20	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	101	%	80-120		1		10/31/18 11:20	98-08-8	
<hr/>									
Sample: MW-2B	Lab ID: 40178634003	Collected: 10/25/18 00:00	Received: 10/30/18 09:20	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO								
Benzene	<0.31	ug/L	1.0	0.31	1		10/31/18 11:46	71-43-2	
Ethylbenzene	<0.33	ug/L	1.1	0.33	1		10/31/18 11:46	100-41-4	
Methyl-tert-butyl ether	<0.32	ug/L	1.1	0.32	1		10/31/18 11:46	1634-04-4	
Naphthalene	<0.51	ug/L	1.7	0.51	1		10/31/18 11:46	91-20-3	
Toluene	<0.49	ug/L	1.6	0.49	1		10/31/18 11:46	108-88-3	
1,2,4-Trimethylbenzene	<0.34	ug/L	1.1	0.34	1		10/31/18 11:46	95-63-6	
1,3,5-Trimethylbenzene	<0.33	ug/L	1.1	0.33	1		10/31/18 11:46	108-67-8	
Xylene (Total)	<0.97	ug/L	3.2	0.97	1		10/31/18 11:46	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1		10/31/18 11:46	98-08-8	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: OLSON GOODMAN  
Pace Project No.: 40178634

Sample: MW-3A	Lab ID: 40178634004	Collected: 10/25/18 00:00	Received: 10/30/18 09:20	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO								
Benzene	<0.31	ug/L	1.0	0.31	1		10/31/18 12:11	71-43-2	
Ethylbenzene	<0.33	ug/L	1.1	0.33	1		10/31/18 12:11	100-41-4	
Methyl-tert-butyl ether	3.1	ug/L	1.1	0.32	1		10/31/18 12:11	1634-04-4	
Naphthalene	<0.51	ug/L	1.7	0.51	1		10/31/18 12:11	91-20-3	
Toluene	<0.49	ug/L	1.6	0.49	1		10/31/18 12:11	108-88-3	
1,2,4-Trimethylbenzene	<0.34	ug/L	1.1	0.34	1		10/31/18 12:11	95-63-6	
1,3,5-Trimethylbenzene	<0.33	ug/L	1.1	0.33	1		10/31/18 12:11	108-67-8	
Xylene (Total)	<0.97	ug/L	3.2	0.97	1		10/31/18 12:11	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	99	%	80-120		1		10/31/18 12:11	98-08-8	
<hr/>									
Sample: MW-3B	Lab ID: 40178634005	Collected: 10/25/18 00:00	Received: 10/30/18 09:20	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO								
Benzene	<0.31	ug/L	1.0	0.31	1		10/31/18 12:37	71-43-2	
Ethylbenzene	<0.33	ug/L	1.1	0.33	1		10/31/18 12:37	100-41-4	
Methyl-tert-butyl ether	<0.32	ug/L	1.1	0.32	1		10/31/18 12:37	1634-04-4	
Naphthalene	<0.51	ug/L	1.7	0.51	1		10/31/18 12:37	91-20-3	
Toluene	<0.49	ug/L	1.6	0.49	1		10/31/18 12:37	108-88-3	
1,2,4-Trimethylbenzene	<0.34	ug/L	1.1	0.34	1		10/31/18 12:37	95-63-6	
1,3,5-Trimethylbenzene	<0.33	ug/L	1.1	0.33	1		10/31/18 12:37	108-67-8	
Xylene (Total)	<0.97	ug/L	3.2	0.97	1		10/31/18 12:37	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	101	%	80-120		1		10/31/18 12:37	98-08-8	
<hr/>									
Sample: MW-4	Lab ID: 40178634006	Collected: 10/25/18 00:00	Received: 10/30/18 09:20	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO								
Benzene	<0.31	ug/L	1.0	0.31	1		10/31/18 13:02	71-43-2	
Ethylbenzene	<0.33	ug/L	1.1	0.33	1		10/31/18 13:02	100-41-4	
Methyl-tert-butyl ether	<0.32	ug/L	1.1	0.32	1		10/31/18 13:02	1634-04-4	
Naphthalene	<0.51	ug/L	1.7	0.51	1		10/31/18 13:02	91-20-3	
Toluene	<0.49	ug/L	1.6	0.49	1		10/31/18 13:02	108-88-3	
1,2,4-Trimethylbenzene	<0.34	ug/L	1.1	0.34	1		10/31/18 13:02	95-63-6	
1,3,5-Trimethylbenzene	<0.33	ug/L	1.1	0.33	1		10/31/18 13:02	108-67-8	
Xylene (Total)	<0.97	ug/L	3.2	0.97	1		10/31/18 13:02	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1		10/31/18 13:02	98-08-8	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: OLSON GOODMAN  
Pace Project No.: 40178634

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Sample: MW-5                    Lab ID: 40178634007            Collected: 10/25/18 00:00            Received: 10/30/18 09:20            Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO								
Benzene	<b>0.31J</b>	ug/L	1.0	0.31	1		10/31/18 13:28	71-43-2	
Ethylbenzene	<b>0.68J</b>	ug/L	1.1	0.33	1		10/31/18 13:28	100-41-4	
Methyl-tert-butyl ether	<b>&lt;0.32</b>	ug/L	1.1	0.32	1		10/31/18 13:28	1634-04-4	
Naphthalene	<b>0.63J</b>	ug/L	1.7	0.51	1		10/31/18 13:28	91-20-3	
Toluene	<b>&lt;0.49</b>	ug/L	1.6	0.49	1		10/31/18 13:28	108-88-3	
1,2,4-Trimethylbenzene	<b>&lt;0.34</b>	ug/L	1.1	0.34	1		10/31/18 13:28	95-63-6	
1,3,5-Trimethylbenzene	<b>&lt;0.33</b>	ug/L	1.1	0.33	1		10/31/18 13:28	108-67-8	
Xylene (Total)	<b>&lt;0.97</b>	ug/L	3.2	0.97	1		10/31/18 13:28	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	104	%	80-120		1		10/31/18 13:28	98-08-8	

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Sample: MW-7                    Lab ID: 40178634008            Collected: 10/25/18 00:00            Received: 10/30/18 09:20            Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO								
Benzene	<b>&lt;0.31</b>	ug/L	1.0	0.31	1		10/31/18 13:54	71-43-2	
Ethylbenzene	<b>&lt;0.33</b>	ug/L	1.1	0.33	1		10/31/18 13:54	100-41-4	
Methyl-tert-butyl ether	<b>&lt;0.32</b>	ug/L	1.1	0.32	1		10/31/18 13:54	1634-04-4	
Naphthalene	<b>&lt;0.51</b>	ug/L	1.7	0.51	1		10/31/18 13:54	91-20-3	
Toluene	<b>&lt;0.49</b>	ug/L	1.6	0.49	1		10/31/18 13:54	108-88-3	
1,2,4-Trimethylbenzene	<b>&lt;0.34</b>	ug/L	1.1	0.34	1		10/31/18 13:54	95-63-6	
1,3,5-Trimethylbenzene	<b>&lt;0.33</b>	ug/L	1.1	0.33	1		10/31/18 13:54	108-67-8	
Xylene (Total)	<b>&lt;0.97</b>	ug/L	3.2	0.97	1		10/31/18 13:54	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	99	%	80-120		1		10/31/18 13:54	98-08-8	

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Sample: MW-9                    Lab ID: 40178634009            Collected: 10/25/18 00:00            Received: 10/30/18 09:20            Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO								
Benzene	<b>&lt;0.31</b>	ug/L	1.0	0.31	1		10/31/18 14:19	71-43-2	
Ethylbenzene	<b>&lt;0.33</b>	ug/L	1.1	0.33	1		10/31/18 14:19	100-41-4	
Methyl-tert-butyl ether	<b>&lt;0.32</b>	ug/L	1.1	0.32	1		10/31/18 14:19	1634-04-4	
Naphthalene	<b>&lt;0.51</b>	ug/L	1.7	0.51	1		10/31/18 14:19	91-20-3	
Toluene	<b>&lt;0.49</b>	ug/L	1.6	0.49	1		10/31/18 14:19	108-88-3	
1,2,4-Trimethylbenzene	<b>&lt;0.34</b>	ug/L	1.1	0.34	1		10/31/18 14:19	95-63-6	
1,3,5-Trimethylbenzene	<b>&lt;0.33</b>	ug/L	1.1	0.33	1		10/31/18 14:19	108-67-8	
Xylene (Total)	<b>&lt;0.97</b>	ug/L	3.2	0.97	1		10/31/18 14:19	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	99	%	80-120		1		10/31/18 14:19	98-08-8	

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## ANALYTICAL RESULTS

Project: OLSON GOODMAN  
Pace Project No.: 40178634

**Sample: MW-9P**      Lab ID: 40178634010      Collected: 10/25/18 00:00      Received: 10/30/18 09:20      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO								
Benzene	<0.31	ug/L	1.0	0.31	1		10/31/18 17:18	71-43-2	
Ethylbenzene	<0.33	ug/L	1.1	0.33	1		10/31/18 17:18	100-41-4	
Methyl-tert-butyl ether	26.5	ug/L	1.1	0.32	1		10/31/18 17:18	1634-04-4	
Naphthalene	<0.51	ug/L	1.7	0.51	1		10/31/18 17:18	91-20-3	
Toluene	<0.49	ug/L	1.6	0.49	1		10/31/18 17:18	108-88-3	
1,2,4-Trimethylbenzene	<0.34	ug/L	1.1	0.34	1		10/31/18 17:18	95-63-6	
1,3,5-Trimethylbenzene	<0.33	ug/L	1.1	0.33	1		10/31/18 17:18	108-67-8	
Xylene (Total)	<0.97	ug/L	3.2	0.97	1		10/31/18 17:18	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1		10/31/18 17:18	98-08-8	

**Sample: MW-10A**      Lab ID: 40178634011      Collected: 10/25/18 00:00      Received: 10/30/18 09:20      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO								
Benzene	<0.31	ug/L	1.0	0.31	1		10/31/18 19:26	71-43-2	
Ethylbenzene	<0.33	ug/L	1.1	0.33	1		10/31/18 19:26	100-41-4	
Methyl-tert-butyl ether	0.48J	ug/L	1.1	0.32	1		10/31/18 19:26	1634-04-4	
Naphthalene	<0.51	ug/L	1.7	0.51	1		10/31/18 19:26	91-20-3	
Toluene	<0.49	ug/L	1.6	0.49	1		10/31/18 19:26	108-88-3	
1,2,4-Trimethylbenzene	<0.34	ug/L	1.1	0.34	1		10/31/18 19:26	95-63-6	
1,3,5-Trimethylbenzene	<0.33	ug/L	1.1	0.33	1		10/31/18 19:26	108-67-8	
Xylene (Total)	<0.97	ug/L	3.2	0.97	1		10/31/18 19:26	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1		10/31/18 19:26	98-08-8	

**Sample: MW-10B**      Lab ID: 40178634012      Collected: 10/25/18 00:00      Received: 10/30/18 09:20      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO								
Benzene	<0.31	ug/L	1.0	0.31	1		10/31/18 19:52	71-43-2	
Ethylbenzene	<0.33	ug/L	1.1	0.33	1		10/31/18 19:52	100-41-4	
Methyl-tert-butyl ether	6.9	ug/L	1.1	0.32	1		10/31/18 19:52	1634-04-4	
Naphthalene	<0.51	ug/L	1.7	0.51	1		10/31/18 19:52	91-20-3	
Toluene	<0.49	ug/L	1.6	0.49	1		10/31/18 19:52	108-88-3	
1,2,4-Trimethylbenzene	<0.34	ug/L	1.1	0.34	1		10/31/18 19:52	95-63-6	
1,3,5-Trimethylbenzene	<0.33	ug/L	1.1	0.33	1		10/31/18 19:52	108-67-8	
Xylene (Total)	<0.97	ug/L	3.2	0.97	1		10/31/18 19:52	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	101	%	80-120		1		10/31/18 19:52	98-08-8	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: OLSON GOODMAN

Pace Project No.: 40178634

---

Sample: MW-11A      Lab ID: 40178634013      Collected: 10/25/18 00:00      Received: 10/30/18 09:20      Matrix: Water

---

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO								
Benzene	<0.31	ug/L	1.0	0.31	1		10/31/18 20:17	71-43-2	
Ethylbenzene	<0.33	ug/L	1.1	0.33	1		10/31/18 20:17	100-41-4	
Methyl-tert-butyl ether	<0.32	ug/L	1.1	0.32	1		10/31/18 20:17	1634-04-4	
Naphthalene	<0.51	ug/L	1.7	0.51	1		10/31/18 20:17	91-20-3	
Toluene	<0.49	ug/L	1.6	0.49	1		10/31/18 20:17	108-88-3	
1,2,4-Trimethylbenzene	<0.34	ug/L	1.1	0.34	1		10/31/18 20:17	95-63-6	
1,3,5-Trimethylbenzene	<0.33	ug/L	1.1	0.33	1		10/31/18 20:17	108-67-8	
Xylene (Total)	<0.97	ug/L	3.2	0.97	1		10/31/18 20:17	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	99	%	80-120		1		10/31/18 20:17	98-08-8	

---

Sample: MW-11B      Lab ID: 40178634014      Collected: 10/25/18 00:00      Received: 10/30/18 09:20      Matrix: Water

---

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO								
Benzene	<0.31	ug/L	1.0	0.31	1		11/01/18 14:48	71-43-2	
Ethylbenzene	<0.33	ug/L	1.1	0.33	1		11/01/18 14:48	100-41-4	
Methyl-tert-butyl ether	<0.32	ug/L	1.1	0.32	1		11/01/18 14:48	1634-04-4	
Naphthalene	<0.51	ug/L	1.7	0.51	1		11/01/18 14:48	91-20-3	
Toluene	<0.49	ug/L	1.6	0.49	1		11/01/18 14:48	108-88-3	
1,2,4-Trimethylbenzene	<0.34	ug/L	1.1	0.34	1		11/01/18 14:48	95-63-6	
1,3,5-Trimethylbenzene	<0.33	ug/L	1.1	0.33	1		11/01/18 14:48	108-67-8	
Xylene (Total)	<0.97	ug/L	3.2	0.97	1		11/01/18 14:48	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	99	%	80-120		1		11/01/18 14:48	98-08-8	

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Sample: TRIP BLANK      Lab ID: 40178634015      Collected: 10/25/18 00:00      Received: 10/30/18 09:20      Matrix: Water

---

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO								
Benzene	<0.31	ug/L	1.0	0.31	1		11/01/18 16:04	71-43-2	
Ethylbenzene	<0.33	ug/L	1.1	0.33	1		11/01/18 16:04	100-41-4	
Methyl-tert-butyl ether	<0.32	ug/L	1.1	0.32	1		11/01/18 16:04	1634-04-4	
Naphthalene	<0.51	ug/L	1.7	0.51	1		11/01/18 16:04	91-20-3	
Toluene	<0.49	ug/L	1.6	0.49	1		11/01/18 16:04	108-88-3	
1,2,4-Trimethylbenzene	<0.34	ug/L	1.1	0.34	1		11/01/18 16:04	95-63-6	
1,3,5-Trimethylbenzene	<0.33	ug/L	1.1	0.33	1		11/01/18 16:04	108-67-8	
Xylene (Total)	<0.97	ug/L	3.2	0.97	1		11/01/18 16:04	1330-20-7	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	99	%	80-120		1		11/01/18 16:04	98-08-8	

---

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: OLSON GOODMAN

Pace Project No.: 40178634

QC Batch: 304886 Analysis Method: WI MOD GRO

QC Batch Method: WI MOD GRO Analysis Description: WIGRO GCV Water

Associated Lab Samples: 40178634001, 40178634002, 40178634003, 40178634004, 40178634005, 40178634006, 40178634007,  
40178634008, 40178634009, 40178634010, 40178634011, 40178634012, 40178634013

METHOD BLANK: 1781669 Matrix: Water

Associated Lab Samples: 40178634001, 40178634002, 40178634003, 40178634004, 40178634005, 40178634006, 40178634007,  
40178634008, 40178634009, 40178634010, 40178634011, 40178634012, 40178634013

Parameter	Units	Blank	Reporting		Qualifiers
		Result	Limit	Analyzed	
1,2,4-Trimethylbenzene	ug/L	<0.34	1.1	10/31/18 09:12	
1,3,5-Trimethylbenzene	ug/L	<0.33	1.1	10/31/18 09:12	
Benzene	ug/L	<0.31	1.0	10/31/18 09:12	
Ethylbenzene	ug/L	<0.33	1.1	10/31/18 09:12	
Methyl-tert-butyl ether	ug/L	<0.32	1.1	10/31/18 09:12	
Naphthalene	ug/L	<0.51	1.7	10/31/18 09:12	
Toluene	ug/L	<0.49	1.6	10/31/18 09:12	
Xylene (Total)	ug/L	<0.97	3.2	10/31/18 09:12	
a,a,a-Trifluorotoluene (S)	%	101	80-120	10/31/18 09:12	

LABORATORY CONTROL SAMPLE &amp; LCSD: 1781670

1781671

Parameter	Units	Spike	LCS	LCSD	LCS	LCSD	% Rec	RPD	Max RPD	Qualifiers
		Conc.	Result	Result	% Rec	% Rec	Limits			
1,2,4-Trimethylbenzene	ug/L	20	19.5	19.8	98	99	80-120	1	20	
1,3,5-Trimethylbenzene	ug/L	20	18.9	19.2	94	96	80-120	2	20	
Benzene	ug/L	20	20.6	20.5	103	103	80-120	1	20	
Ethylbenzene	ug/L	20	20.0	20.1	100	100	80-120	0	20	
Methyl-tert-butyl ether	ug/L	20	20.0	20.1	100	100	80-120	0	20	
Naphthalene	ug/L	20	17.8	19.0	89	95	80-120	7	20	
Toluene	ug/L	20	20.4	20.4	102	102	80-120	0	20	
Xylene (Total)	ug/L	60	59.2	59.7	99	100	80-120	1	20	
a,a,a-Trifluorotoluene (S)	%				99	100	80-120			

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1781926

1781927

Parameter	Units	MS	MSD	MS	MSD	% Rec	MSD % Rec	% Rec	RPD	Max RPD	Qual
		40178634001 Result	Spike Conc.								
1,2,4-Trimethylbenzene	ug/L	<0.34	20	20	20.0	21.2	100	106	51-160	6	20
1,3,5-Trimethylbenzene	ug/L	<0.33	20	20	19.5	20.8	97	104	56-146	7	20
Benzene	ug/L	<0.31	20	20	20.9	21.6	105	108	71-137	3	20
Ethylbenzene	ug/L	<0.33	20	20	20.6	21.7	103	108	71-141	5	20
Methyl-tert-butyl ether	ug/L	<0.32	20	20	19.9	20.5	99	102	80-120	3	20
Naphthalene	ug/L	<0.51	20	20	18.4	20.0	92	100	67-138	8	20
Toluene	ug/L	<0.49	20	20	21.0	21.8	105	109	76-134	4	20
Xylene (Total)	ug/L	<0.97	60	60	61.3	64.5	102	107	69-138	5	20
a,a,a-Trifluorotoluene (S)	%						99	100	80-120		

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

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: OLSON GOODMAN

Pace Project No.: 40178634

QC Batch:	305069	Analysis Method:	WI MOD GRO
QC Batch Method:	WI MOD GRO	Analysis Description:	WIGRO GCV Water
Associated Lab Samples:	40178634014, 40178634015		

METHOD BLANK: 1782335                          Matrix: Water

Associated Lab Samples: 40178634014, 40178634015

Parameter	Units	Blank	Reporting		Qualifiers
		Result	Limit	Analyzed	
1,2,4-Trimethylbenzene	ug/L	<0.34	1.1	11/01/18 10:32	
1,3,5-Trimethylbenzene	ug/L	<0.33	1.1	11/01/18 10:32	
Benzene	ug/L	<0.31	1.0	11/01/18 10:32	
Ethylbenzene	ug/L	<0.33	1.1	11/01/18 10:32	
Methyl-tert-butyl ether	ug/L	<0.32	1.1	11/01/18 10:32	
Naphthalene	ug/L	<0.51	1.7	11/01/18 10:32	
Toluene	ug/L	<0.49	1.6	11/01/18 10:32	
Xylene (Total)	ug/L	<0.97	3.2	11/01/18 10:32	
a,a,a-Trifluorotoluene (S)	%	100	80-120	11/01/18 10:32	

LABORATORY CONTROL SAMPLE &amp; LCSD: 1782336

1782337

Parameter	Units	Spike	LCS	LCSD	LCS	LCSD	% Rec	Limits	RPD	Max RPD	Qualifiers
		Conc.	Result	Result	% Rec	% Rec					
1,2,4-Trimethylbenzene	ug/L	20	20.1	20.4	100	102	80-120	1	20		
1,3,5-Trimethylbenzene	ug/L	20	19.4	19.7	97	99	80-120	2	20		
Benzene	ug/L	20	20.2	20.5	101	103	80-120	1	20		
Ethylbenzene	ug/L	20	20.1	20.5	101	102	80-120	2	20		
Methyl-tert-butyl ether	ug/L	20	20.3	19.9	101	99	80-120	2	20		
Naphthalene	ug/L	20	19.0	18.9	95	95	80-120	0	20		
Toluene	ug/L	20	20.3	20.6	102	103	80-120	1	20		
Xylene (Total)	ug/L	60	60.2	60.9	100	102	80-120	1	20		
a,a,a-Trifluorotoluene (S)	%				100	99	80-120				

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1783606

1783607

Parameter	Units	MS		MSD		MS		MSD		% Rec	Limits	RPD	Max RPD	Qual
		40178737001	Spike	Conc.	Spike	Conc.	Result	Result	% Rec					
1,2,4-Trimethylbenzene	ug/L	<0.34	20	20	21.0	21.6	105	108	51-160	3	20			
1,3,5-Trimethylbenzene	ug/L	<0.33	20	20	20.3	20.9	101	105	56-146	3	20			
Benzene	ug/L	<0.31	20	20	21.0	21.5	105	107	71-137	2	20			
Ethylbenzene	ug/L	<0.33	20	20	21.2	21.6	106	108	71-141	2	20			
Methyl-tert-butyl ether	ug/L	9.9	20	20	30.0	30.4	101	103	80-120	1	20			
Naphthalene	ug/L	<0.51	20	20	18.9	20.1	94	101	67-138	6	20			
Toluene	ug/L	<0.49	20	20	21.4	21.8	107	109	76-134	2	20			
Xylene (Total)	ug/L	<0.97	60	60	63.2	64.2	105	107	69-138	2	20			
a,a,a-Trifluorotoluene (S)	%						100	99	80-120					

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## REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: OLSON GOODMAN  
Pace Project No.: 40178634

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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 and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

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

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: OLSON GOODMAN  
Pace Project No.: 40178634

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40178634001	MW-1	WI MOD GRO	304886		
40178634002	MW-2A	WI MOD GRO	304886		
40178634003	MW-2B	WI MOD GRO	304886		
40178634004	MW-3A	WI MOD GRO	304886		
40178634005	MW-3B	WI MOD GRO	304886		
40178634006	MW-4	WI MOD GRO	304886		
40178634007	MW-5	WI MOD GRO	304886		
40178634008	MW-7	WI MOD GRO	304886		
40178634009	MW-9	WI MOD GRO	304886		
40178634010	MW-9P	WI MOD GRO	304886		
40178634011	MW-10A	WI MOD GRO	304886		
40178634012	MW-10B	WI MOD GRO	304886		
40178634013	MW-11A	WI MOD GRO	304886		
40178634014	MW-11B	WI MOD GRO	305069		
40178634015	TRIP BLANK	WI MOD GRO	305069		

**REPORT OF LABORATORY ANALYSIS**

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(Please Print Clearly)

Company Name:	Meridian Env. Co. Inc.	
Branch/Location:		
Project Contact:	Ken Shinko	
Phone:	715 832 6608	
Project Number:		
Project Name:	Olson Goodman	
Project State:	WI	
Sampled By (Print):	Ken Shinko	
Sampled By (Sign):		
PO #:		Regulatory Program:

**Data Package Options**

(billable)

 EPA Level III EPA Level IV**MS/MSD** On your sample

(billable)

 NOT needed on

your sample

**Matrix Codes**

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

PACE LAB #

CLIENT FIELD ID

COLLECTION

DATE

TIME

MATRIX

001

MW-1

10/25

GW

002

-2A

/

003

-2B

/

004

-3A

/

005

-3B

/

006

-4

/

007

-5

/

008

-7

/

009

-9

/

010

-9P

/

011

-10A

/

012

-10B

/

**Rush Turnaround Time Requested - Prelims**

(Rush TAT subject to approval/surcharge)

Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:

Email #2:

Telephone:

Fax:

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

Relinquished By:

Date/Time:

(Please Print Clearly)

Company Name: Mendan Env Cst  
 Branch/Location:  
 Project Contact: Ken Shinko  
 Phone: 715-832-6608  
 Project Number:  
 Project Name: Olson Lead Mine  
 Project State: WI  
 Sampled By (Print): Ken Shinko  
 Sampled By (Sign):   
 PO #:  Regulatory Program:

## Data Package Options

(billable)

 EPA Level III EPA Level IV

## MS/MSD

(billable)

 On your sample NOT needed on your sample

## Matrix Codes

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

## PACE LAB #

## CLIENT FIELD ID

COLLECTION

DATE

TIME

MATRIX

013

MW-11A

10/25

Gws

Analyses Requested

Y/N

Pick Letter

Project Track

X

V

014

MW-11B

↓

↓

015

Trip Blank ①

① In shipment Lab added to COK  
10/30/18 SWW

Quote #:		
Mail To Contact:	Ken Shinko	
Mail To Company:		
Mail To Address:		
Invoice To Contact:		
Invoice To Company:		
Invoice To Address:		
Invoice To Phone:		
CLIENT COMMENTS	LAB COMMENTS	Profile #
(Lab Use Only)		

R212  
-0-

## Rush Turnaround Time Requested - Prelims

(Rush TAT subject to approval/surcharge)

Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:

Email #2:

Telephone:

Fax:

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

Relinquished By:

Relinquished By:

Relinquished By:

Relinquished By:

Relinquished By:

Relinquished By:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Received By:

Received By:

Received By:

Received By:

Received By:

Received By:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

PACE Project No.

Receipt Temp = ROT °C

Sample Receipt pH

OK / Adjusted

Cooler Custody Seal

Present / Not Present

Intact / Not Intact

UPPER MIDWEST REGION

MN: 612-607-1700 WI: 920-469-2436

Page 2 of 2  
40178634  
Page 16 of 18

## CHAIN OF CUSTODY

\*Preservation Codes

 A=None B=HCl C=H<sub>2</sub>SO<sub>4</sub> D=HNO<sub>3</sub> E=DI Water F=Methanol G=NaOH  
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other
FILTERED?  
(YES/NO)PRESERVATION  
(CODE)\*

Y/N

Pick Letter

Project Track

X

V

Rush Turnaround Time Requested - Prelims

(Rush TAT subject to approval/surcharge)

Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:

Email #2:

Telephone:

Fax:

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

Client Name: Moridian Env

### Sample Preservation Receipt Form

Project # 40178634

All containers needing preservation have been checked and noted below:  Yes  No  N/A

Lab Lot# of pH paper:

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

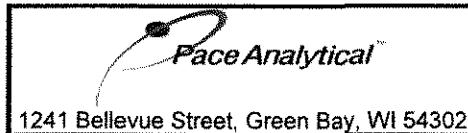
Initial when completed:

Date/  
Time:

Pace Lab #	Glass					Plastic					Vials					Jars			General			VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3C	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU	SP5T	ZPLC	GN		
001																												2.5 / 5 / 10
002																												2.5 / 5 / 10
003																												2.5 / 5 / 10
004																												2.5 / 5 / 10
005																												2.5 / 5 / 10
006																												2.5 / 5 / 10
007																												2.5 / 5 / 10
008																												2.5 / 5 / 10
009																												2.5 / 5 / 10
010																												2.5 / 5 / 10
011																												2.5 / 5 / 10
012																												2.5 / 5 / 10
013																												2.5 / 5 / 10
014																												2.5 / 5 / 10
015																												2.5 / 5 / 10
016																												2.5 / 5 / 10
017																												2.5 / 5 / 10
018																												2.5 / 5 / 10
019																												2.5 / 5 / 10
020																												2.5 / 5 / 10

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

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3C	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	



Document Name:  
Sample Condition Upon Receipt (SCUR)

Document Revised: 25Apr2018

Document No.:  
F-GB-C-031-Rev.07

Issuing Authority:  
Pace Green Bay Quality Office

### Sample Condition Upon Receipt Form (SCUR)

Project #:

WO# : 40178634

Client Name:

Meridian Env

Courier:  CS Logistics  Fed Ex  Speedee  UPS  Waltco

Client  Pace  Other:

Tracking #: 7834 8161 7789



40178634

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: 40° /Corr:

Temp Blank Present:  yes  no

Biological Tissue is Frozen:  yes  no

Person examining contents:

Date: 10-30-18  
Initials: SLD

Temp should be above freezing to 6°C.

Biota Samples may be received at ≤ 0°C.

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1. Original and <del>the copy</del> 10-30-18 SW
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2. No filter, preservation or Invoice
Chain of Custody Relinquished:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3. No time 10-30-18 SW
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time: - VOA Samples frozen upon receipt	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	5. Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume: 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	8.	
Correct Containers Used: -Pace Containers Used: -Pace IR Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9.
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 type="checkbox"/> N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12. No date + times all samples All samples missing "NW" prefix 10-30-18
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13. In shipment lab added SW
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	10-30-18 SW
Pace Trip Blank Lot # (if purchased): 4071		

Client Notification/ Resolution:

If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_

Date/Time: \_\_\_\_\_

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

Project Manager Review:

Date: 10-30-18

May 24, 2019

Kenneth Shimko  
Meridian Environmental Consulting, LLC  
2711 North Elco Rd  
Fall Creek, WI 54742

RE: Project: OLSON GOODMAN  
Pace Project No.: 40187980

Dear Kenneth Shimko:

Enclosed are the analytical results for sample(s) received by the laboratory on May 21, 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,



Brian Basten  
brian.basten@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: OLSON GOODMAN  
Pace Project No.: 40187980

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### 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: OLSON GOODMAN  
Pace Project No.: 40187980

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40187980001	1R	Water	05/16/19 00:00	05/21/19 08:37
40187980002	2A	Water	05/16/19 00:00	05/21/19 08:37
40187980003	2B	Water	05/16/19 00:00	05/21/19 08:37
40187980004	3A	Water	05/16/19 00:00	05/21/19 08:37
40187980005	3B	Water	05/16/19 00:00	05/21/19 08:37
40187980006	4	Water	05/16/19 00:00	05/21/19 08:37
40187980007	5	Water	05/16/19 00:00	05/21/19 08:37
40187980008	7	Water	05/16/19 00:00	05/21/19 08:37
40187980009	7P	Water	05/16/19 00:00	05/21/19 08:37
40187980010	9	Water	05/16/19 00:00	05/21/19 08:37
40187980011	9P	Water	05/16/19 00:00	05/21/19 08:37
40187980012	10A	Water	05/16/19 00:00	05/21/19 08:37
40187980013	10B	Water	05/16/19 00:00	05/21/19 08:37
40187980014	11A	Water	05/16/19 00:00	05/21/19 08:37
40187980015	11B	Water	05/16/19 00:00	05/21/19 08:37
40187980016	TRIP BLANK	Water	05/16/19 00:00	05/21/19 08:37

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## SAMPLE ANALYTE COUNT

Project: OLSON GOODMAN  
Pace Project No.: 40187980

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40187980001	1R	EPA 8260	LAP	12	PASI-G
40187980002	2A	EPA 8260	LAP	12	PASI-G
40187980003	2B	EPA 8260	LAP	12	PASI-G
40187980004	3A	EPA 8260	LAP	12	PASI-G
40187980005	3B	EPA 8260	LAP	12	PASI-G
40187980006	4	EPA 8260	LAP	12	PASI-G
40187980007	5	EPA 8260	LAP	12	PASI-G
40187980008	7	EPA 8260	LAP	12	PASI-G
40187980009	7P	EPA 8260	LAP	12	PASI-G
40187980010	9	EPA 8260	LAP	12	PASI-G
40187980011	9P	EPA 8260	LAP	12	PASI-G
40187980012	10A	EPA 8260	LAP	12	PASI-G
40187980013	10B	EPA 8260	LAP	12	PASI-G
40187980014	11A	EPA 8260	LAP	12	PASI-G
40187980015	11B	EPA 8260	LAP	12	PASI-G
40187980016	TRIP BLANK	EPA 8260	LAP	12	PASI-G

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## PROJECT NARRATIVE

Project: OLSON GOODMAN  
Pace Project No.: 40187980

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**Method:** EPA 8260  
**Description:** 8260 MSV UST  
**Client:** Meridian Environmental Consulting, LLC  
**Date:** May 24, 2019

**General Information:**

16 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: OLSON GOODMAN  
Pace Project No.: 40187980

Sample: 1R	Lab ID: 40187980001	Collected: 05/16/19 00:00	Received: 05/21/19 08:37	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>	Analytical Method: EPA 8260								
Benzene	<0.25	ug/L	1.0	0.25	1		05/22/19 10:01	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		05/22/19 10:01	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		05/22/19 10:01	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		05/22/19 10:01	91-20-3	
Toluene	<0.17	ug/L	5.0	0.17	1		05/22/19 10:01	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		05/22/19 10:01	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		05/22/19 10:01	108-67-8	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		05/22/19 10:01	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		05/22/19 10:01	95-47-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	94	%	70-130		1		05/22/19 10:01	1868-53-7	
Toluene-d8 (S)	92	%	70-130		1		05/22/19 10:01	2037-26-5	
4-Bromofluorobenzene (S)	97	%	70-130		1		05/22/19 10:01	460-00-4	
<hr/>									
Sample: 2A	Lab ID: 40187980002	Collected: 05/16/19 00:00	Received: 05/21/19 08:37	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>	Analytical Method: EPA 8260								
Benzene	0.78J	ug/L	1.0	0.25	1		05/22/19 10:24	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		05/22/19 10:24	100-41-4	
Methyl-tert-butyl ether	1.7J	ug/L	4.2	1.2	1		05/22/19 10:24	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		05/22/19 10:24	91-20-3	
Toluene	<0.17	ug/L	5.0	0.17	1		05/22/19 10:24	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		05/22/19 10:24	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		05/22/19 10:24	108-67-8	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		05/22/19 10:24	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		05/22/19 10:24	95-47-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	101	%	70-130		1		05/22/19 10:24	1868-53-7	
Toluene-d8 (S)	96	%	70-130		1		05/22/19 10:24	2037-26-5	
4-Bromofluorobenzene (S)	97	%	70-130		1		05/22/19 10:24	460-00-4	
<hr/>									
Sample: 2B	Lab ID: 40187980003	Collected: 05/16/19 00:00	Received: 05/21/19 08:37	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>	Analytical Method: EPA 8260								
Benzene	<0.25	ug/L	1.0	0.25	1		05/22/19 10:46	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		05/22/19 10:46	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		05/22/19 10:46	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		05/22/19 10:46	91-20-3	
Toluene	<0.17	ug/L	5.0	0.17	1		05/22/19 10:46	108-88-3	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: OLSON GOODMAN

Pace Project No.: 40187980

Sample: 2B	Lab ID: 40187980003	Collected: 05/16/19 00:00	Received: 05/21/19 08:37	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>	Analytical Method: EPA 8260								
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		05/22/19 10:46	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		05/22/19 10:46	108-67-8	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		05/22/19 10:46	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		05/22/19 10:46	95-47-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	98	%	70-130		1		05/22/19 10:46	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		05/22/19 10:46	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1		05/22/19 10:46	460-00-4	
Sample: 3A	Lab ID: 40187980004	Collected: 05/16/19 00:00	Received: 05/21/19 08:37	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>	Analytical Method: EPA 8260								
Benzene	8.2	ug/L	1.0	0.25	1		05/22/19 11:09	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		05/22/19 11:09	100-41-4	
Methyl-tert-butyl ether	4.2	ug/L	4.2	1.2	1		05/22/19 11:09	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		05/22/19 11:09	91-20-3	
Toluene	<0.17	ug/L	5.0	0.17	1		05/22/19 11:09	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		05/22/19 11:09	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		05/22/19 11:09	108-67-8	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		05/22/19 11:09	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		05/22/19 11:09	95-47-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	98	%	70-130		1		05/22/19 11:09	1868-53-7	
Toluene-d8 (S)	92	%	70-130		1		05/22/19 11:09	2037-26-5	
4-Bromofluorobenzene (S)	99	%	70-130		1		05/22/19 11:09	460-00-4	
Sample: 3B	Lab ID: 40187980005	Collected: 05/16/19 00:00	Received: 05/21/19 08:37	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>	Analytical Method: EPA 8260								
Benzene	<0.25	ug/L	1.0	0.25	1		05/22/19 11:31	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		05/22/19 11:31	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		05/22/19 11:31	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		05/22/19 11:31	91-20-3	
Toluene	<0.17	ug/L	5.0	0.17	1		05/22/19 11:31	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		05/22/19 11:31	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		05/22/19 11:31	108-67-8	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		05/22/19 11:31	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		05/22/19 11:31	95-47-6	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: OLSON GOODMAN  
Pace Project No.: 40187980

Sample: 3B	Lab ID: 40187980005	Collected: 05/16/19 00:00	Received: 05/21/19 08:37	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>		Analytical Method: EPA 8260							
<b>Surrogates</b>									
Dibromofluoromethane (S)	96	%	70-130		1		05/22/19 11:31	1868-53-7	
Toluene-d8 (S)	94	%	70-130		1		05/22/19 11:31	2037-26-5	
4-Bromofluorobenzene (S)	99	%	70-130		1		05/22/19 11:31	460-00-4	
Sample: 4	Lab ID: 40187980006	Collected: 05/16/19 00:00	Received: 05/21/19 08:37	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>		Analytical Method: EPA 8260							
Benzene	<0.25	ug/L		1.0	0.25	1		05/22/19 11:54	71-43-2
Ethylbenzene	<0.22	ug/L		1.0	0.22	1		05/22/19 11:54	100-41-4
Methyl-tert-butyl ether	<1.2	ug/L		4.2	1.2	1		05/22/19 11:54	1634-04-4
Naphthalene	<1.2	ug/L		5.0	1.2	1		05/22/19 11:54	91-20-3
Toluene	<0.17	ug/L		5.0	0.17	1		05/22/19 11:54	108-88-3
1,2,4-Trimethylbenzene	<0.84	ug/L		2.8	0.84	1		05/22/19 11:54	95-63-6
1,3,5-Trimethylbenzene	<0.87	ug/L		2.9	0.87	1		05/22/19 11:54	108-67-8
m&p-Xylene	<0.47	ug/L		2.0	0.47	1		05/22/19 11:54	179601-23-1
o-Xylene	<0.26	ug/L		1.0	0.26	1		05/22/19 11:54	95-47-6
<b>Surrogates</b>									
Dibromofluoromethane (S)	101	%	70-130		1		05/22/19 11:54	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		05/22/19 11:54	2037-26-5	
4-Bromofluorobenzene (S)	103	%	70-130		1		05/22/19 11:54	460-00-4	
Sample: 5	Lab ID: 40187980007	Collected: 05/16/19 00:00	Received: 05/21/19 08:37	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>		Analytical Method: EPA 8260							
Benzene	2.5	ug/L		1.0	0.25	1		05/24/19 06:29	71-43-2
Ethylbenzene	1.1	ug/L		1.0	0.22	1		05/24/19 06:29	100-41-4
Methyl-tert-butyl ether	<1.2	ug/L		4.2	1.2	1		05/24/19 06:29	1634-04-4
Naphthalene	<1.2	ug/L		5.0	1.2	1		05/24/19 06:29	91-20-3
Toluene	<0.17	ug/L		5.0	0.17	1		05/24/19 06:29	108-88-3
1,2,4-Trimethylbenzene	<0.84	ug/L		2.8	0.84	1		05/24/19 06:29	95-63-6
1,3,5-Trimethylbenzene	<0.87	ug/L		2.9	0.87	1		05/24/19 06:29	108-67-8
m&p-Xylene	<0.47	ug/L		2.0	0.47	1		05/24/19 06:29	179601-23-1
o-Xylene	<0.26	ug/L		1.0	0.26	1		05/24/19 06:29	95-47-6
<b>Surrogates</b>									
Dibromofluoromethane (S)	107	%	70-130		1		05/24/19 06:29	1868-53-7	
Toluene-d8 (S)	104	%	70-130		1		05/24/19 06:29	2037-26-5	
4-Bromofluorobenzene (S)	87	%	70-130		1		05/24/19 06:29	460-00-4	

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## ANALYTICAL RESULTS

Project: OLSON GOODMAN  
Pace Project No.: 40187980

Sample: 7	Lab ID: 40187980008	Collected: 05/16/19 00:00	Received: 05/21/19 08:37	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>	Analytical Method: EPA 8260								
Benzene	<0.25	ug/L	1.0	0.25	1		05/22/19 12:16	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		05/22/19 12:16	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		05/22/19 12:16	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		05/22/19 12:16	91-20-3	
Toluene	<0.17	ug/L	5.0	0.17	1		05/22/19 12:16	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		05/22/19 12:16	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		05/22/19 12:16	108-67-8	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		05/22/19 12:16	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		05/22/19 12:16	95-47-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	100	%	70-130		1		05/22/19 12:16	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		05/22/19 12:16	2037-26-5	
4-Bromofluorobenzene (S)	102	%	70-130		1		05/22/19 12:16	460-00-4	
<hr/>									
Sample: 7P	Lab ID: 40187980009	Collected: 05/16/19 00:00	Received: 05/21/19 08:37	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>	Analytical Method: EPA 8260								
Benzene	<0.25	ug/L	1.0	0.25	1		05/22/19 12:38	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		05/22/19 12:38	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		05/22/19 12:38	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		05/22/19 12:38	91-20-3	
Toluene	<0.17	ug/L	5.0	0.17	1		05/22/19 12:38	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		05/22/19 12:38	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		05/22/19 12:38	108-67-8	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		05/22/19 12:38	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		05/22/19 12:38	95-47-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	104	%	70-130		1		05/22/19 12:38	1868-53-7	
Toluene-d8 (S)	92	%	70-130		1		05/22/19 12:38	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130		1		05/22/19 12:38	460-00-4	
<hr/>									
Sample: 9	Lab ID: 40187980010	Collected: 05/16/19 00:00	Received: 05/21/19 08:37	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>	Analytical Method: EPA 8260								
Benzene	<0.25	ug/L	1.0	0.25	1		05/22/19 13:01	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		05/22/19 13:01	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		05/22/19 13:01	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		05/22/19 13:01	91-20-3	
Toluene	<0.17	ug/L	5.0	0.17	1		05/22/19 13:01	108-88-3	

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## ANALYTICAL RESULTS

Project: OLSON GOODMAN

Pace Project No.: 40187980

Sample: 9	Lab ID: 40187980010	Collected: 05/16/19 00:00	Received: 05/21/19 08:37	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>	Analytical Method: EPA 8260								
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		05/22/19 13:01	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		05/22/19 13:01	108-67-8	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		05/22/19 13:01	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		05/22/19 13:01	95-47-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	100	%	70-130		1		05/22/19 13:01	1868-53-7	
Toluene-d8 (S)	96	%	70-130		1		05/22/19 13:01	2037-26-5	
4-Bromofluorobenzene (S)	94	%	70-130		1		05/22/19 13:01	460-00-4	
<hr/>									
Sample: 9P	Lab ID: 40187980011	Collected: 05/16/19 00:00	Received: 05/21/19 08:37	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>	Analytical Method: EPA 8260								
Benzene	<0.25	ug/L	1.0	0.25	1		05/22/19 13:23	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		05/22/19 13:23	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		05/22/19 13:23	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		05/22/19 13:23	91-20-3	
Toluene	<0.17	ug/L	5.0	0.17	1		05/22/19 13:23	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		05/22/19 13:23	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		05/22/19 13:23	108-67-8	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		05/22/19 13:23	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		05/22/19 13:23	95-47-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	94	%	70-130		1		05/22/19 13:23	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		05/22/19 13:23	2037-26-5	
4-Bromofluorobenzene (S)	106	%	70-130		1		05/22/19 13:23	460-00-4	
<hr/>									
Sample: 10A	Lab ID: 40187980012	Collected: 05/16/19 00:00	Received: 05/21/19 08:37	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>	Analytical Method: EPA 8260								
Benzene	<0.25	ug/L	1.0	0.25	1		05/22/19 13:46	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		05/22/19 13:46	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		05/22/19 13:46	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		05/22/19 13:46	91-20-3	
Toluene	<0.17	ug/L	5.0	0.17	1		05/22/19 13:46	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		05/22/19 13:46	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		05/22/19 13:46	108-67-8	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		05/22/19 13:46	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		05/22/19 13:46	95-47-6	

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## ANALYTICAL RESULTS

Project: OLSON GOODMAN

Pace Project No.: 40187980

**Sample: 10A**      Lab ID: 40187980012      Collected: 05/16/19 00:00      Received: 05/21/19 08:37      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>		Analytical Method: EPA 8260							
<b>Surrogates</b>									
Dibromofluoromethane (S)	105	%	70-130		1		05/22/19 13:46	1868-53-7	
Toluene-d8 (S)	92	%	70-130		1		05/22/19 13:46	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1		05/22/19 13:46	460-00-4	

**Sample: 10B**      Lab ID: 40187980013      Collected: 05/16/19 00:00      Received: 05/21/19 08:37      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>		Analytical Method: EPA 8260							
Benzene									
Benzene	<0.25	ug/L	1.0	0.25	1		05/22/19 14:08	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		05/22/19 14:08	100-41-4	
Methyl-tert-butyl ether	2.8J	ug/L	4.2	1.2	1		05/22/19 14:08	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		05/22/19 14:08	91-20-3	
Toluene	<0.17	ug/L	5.0	0.17	1		05/22/19 14:08	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		05/22/19 14:08	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		05/22/19 14:08	108-67-8	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		05/22/19 14:08	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		05/22/19 14:08	95-47-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	106	%	70-130		1		05/22/19 14:08	1868-53-7	
Toluene-d8 (S)	93	%	70-130		1		05/22/19 14:08	2037-26-5	
4-Bromofluorobenzene (S)	97	%	70-130		1		05/22/19 14:08	460-00-4	

**Sample: 11A**      Lab ID: 40187980014      Collected: 05/16/19 00:00      Received: 05/21/19 08:37      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>		Analytical Method: EPA 8260							
Benzene									
Benzene	<0.25	ug/L	1.0	0.25	1		05/22/19 14:31	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		05/22/19 14:31	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		05/22/19 14:31	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		05/22/19 14:31	91-20-3	
Toluene	<0.17	ug/L	5.0	0.17	1		05/22/19 14:31	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		05/22/19 14:31	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		05/22/19 14:31	108-67-8	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		05/22/19 14:31	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		05/22/19 14:31	95-47-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	98	%	70-130		1		05/22/19 14:31	1868-53-7	
Toluene-d8 (S)	96	%	70-130		1		05/22/19 14:31	2037-26-5	
4-Bromofluorobenzene (S)	101	%	70-130		1		05/22/19 14:31	460-00-4	

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## ANALYTICAL RESULTS

Project: OLSON GOODMAN  
Pace Project No.: 40187980

Sample: 11B	Lab ID: 40187980015	Collected: 05/16/19 00:00	Received: 05/21/19 08:37	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>	Analytical Method: EPA 8260								
Benzene	<0.25	ug/L	1.0	0.25	1		05/23/19 14:05	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		05/23/19 14:05	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		05/23/19 14:05	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		05/23/19 14:05	91-20-3	
Toluene	<0.17	ug/L	5.0	0.17	1		05/23/19 14:05	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		05/23/19 14:05	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		05/23/19 14:05	108-67-8	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		05/23/19 14:05	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		05/23/19 14:05	95-47-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	112	%	70-130		1		05/23/19 14:05	1868-53-7	
Toluene-d8 (S)	102	%	70-130		1		05/23/19 14:05	2037-26-5	
4-Bromofluorobenzene (S)	84	%	70-130		1		05/23/19 14:05	460-00-4	
<hr/>									
Sample: TRIP BLANK	Lab ID: 40187980016	Collected: 05/16/19 00:00	Received: 05/21/19 08:37	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>	Analytical Method: EPA 8260								
Benzene	<0.25	ug/L	1.0	0.25	1		05/22/19 08:54	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		05/22/19 08:54	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		05/22/19 08:54	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		05/22/19 08:54	91-20-3	
Toluene	<0.17	ug/L	5.0	0.17	1		05/22/19 08:54	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		05/22/19 08:54	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		05/22/19 08:54	108-67-8	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		05/22/19 08:54	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		05/22/19 08:54	95-47-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	99	%	70-130		1		05/22/19 08:54	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1		05/22/19 08:54	2037-26-5	
4-Bromofluorobenzene (S)	103	%	70-130		1		05/22/19 08:54	460-00-4	

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## QUALITY CONTROL DATA

Project: OLSON GOODMAN

Pace Project No.: 40187980

QC Batch: 321994 Analysis Method: EPA 8260

QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER

Associated Lab Samples: 40187980001, 40187980002, 40187980003, 40187980004, 40187980005, 40187980006, 40187980008,  
40187980009, 40187980010, 40187980011, 40187980012, 40187980013, 40187980014, 40187980016

METHOD BLANK: 1869932 Matrix: Water

Associated Lab Samples: 40187980001, 40187980002, 40187980003, 40187980004, 40187980005, 40187980006, 40187980008,  
40187980009, 40187980010, 40187980011, 40187980012, 40187980013, 40187980014, 40187980016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	05/22/19 06:18	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	05/22/19 06:18	
Benzene	ug/L	<0.25	1.0	05/22/19 06:18	
Ethylbenzene	ug/L	<0.22	1.0	05/22/19 06:18	
m&p-Xylene	ug/L	<0.47	2.0	05/22/19 06:18	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	05/22/19 06:18	
Naphthalene	ug/L	<1.2	5.0	05/22/19 06:18	
o-Xylene	ug/L	<0.26	1.0	05/22/19 06:18	
Toluene	ug/L	<0.17	5.0	05/22/19 06:18	
4-Bromofluorobenzene (S)	%	98	70-130	05/22/19 06:18	
Dibromofluoromethane (S)	%	105	70-130	05/22/19 06:18	
Toluene-d8 (S)	%	91	70-130	05/22/19 06:18	

LABORATORY CONTROL SAMPLE: 1869933

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	50	39.7	79	70-130	
Ethylbenzene	ug/L	50	60.7	121	80-124	
m&p-Xylene	ug/L	100	124	124	70-130	
Methyl-tert-butyl ether	ug/L	50	47.6	95	54-137	
o-Xylene	ug/L	50	59.7	119	70-130	
Toluene	ug/L	50	52.4	105	80-126	
4-Bromofluorobenzene (S)	%			111	70-130	
Dibromofluoromethane (S)	%			99	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1870825 1870826

Parameter	Units	MS		MSD		MS		MSD		% Rec		Max RPD	RPD Qual
		40187986001	Result	Spike Conc.	Conc.	MS Result	MSD Result	% Rec	% Rec	Limits	RPD		
Benzene	ug/L	<0.25	50	50	36.4	38.0	73	76	70-130	4	20		
Ethylbenzene	ug/L	<0.22	50	50	56.7	59.4	113	119	80-125	5	20		
m&p-Xylene	ug/L	<0.47	100	100	112	112	112	112	70-130	0	20		
Methyl-tert-butyl ether	ug/L	<1.2	50	50	42.6	43.4	85	87	51-145	2	20		
o-Xylene	ug/L	<0.26	50	50	55.4	57.2	111	114	70-130	3	20		
Toluene	ug/L	<0.17	50	50	49.5	51.5	99	103	80-131	4	20		
4-Bromofluorobenzene (S)	%						110	111	70-130				

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

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: OLSON GOODMAN

Pace Project No.: 40187980

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1870825      1870826

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40187986001	Spike Conc.	Spike Conc.	MS Result								
Dibromofluoromethane (S)	%							95	98	70-130			
Toluene-d8 (S)	%							99	99	70-130			

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: OLSON GOODMAN

Pace Project No.: 40187980

QC Batch: 322156 Analysis Method: EPA 8260

QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER

Associated Lab Samples: 40187980007, 40187980015

METHOD BLANK: 1870694 Matrix: Water

Associated Lab Samples: 40187980007, 40187980015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	05/23/19 06:20	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	05/23/19 06:20	
Benzene	ug/L	<0.25	1.0	05/23/19 06:20	
Ethylbenzene	ug/L	<0.22	1.0	05/23/19 06:20	
m&p-Xylene	ug/L	<0.47	2.0	05/23/19 06:20	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	05/23/19 06:20	
Naphthalene	ug/L	<1.2	5.0	05/23/19 06:20	
o-Xylene	ug/L	<0.26	1.0	05/23/19 06:20	
Toluene	ug/L	<0.17	5.0	05/23/19 06:20	
4-Bromofluorobenzene (S)	%	88	70-130	05/23/19 06:20	
Dibromofluoromethane (S)	%	110	70-130	05/23/19 06:20	
Toluene-d8 (S)	%	103	70-130	05/23/19 06:20	

LABORATORY CONTROL SAMPLE: 1870695

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	50	54.5	109	70-130	
Ethylbenzene	ug/L	50	54.0	108	80-124	
m&p-Xylene	ug/L	100	112	112	70-130	
Methyl-tert-butyl ether	ug/L	50	55.7	111	54-137	
o-Xylene	ug/L	50	54.3	109	70-130	
Toluene	ug/L	50	52.5	105	80-126	
4-Bromofluorobenzene (S)	%			93	70-130	
Dibromofluoromethane (S)	%			109	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1871132 1871133

Parameter	Units	MS		MSD		MS		MSD		% Rec		Max RPD	RPD Qual
		40188010006	Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	% Rec	MSD % Rec	MS % Rec	MSD % Rec	Limits	
Benzene	ug/L	<0.25	50	50	57.9	59.4	116	119	70-130	70-130	70-130	3	20
Ethylbenzene	ug/L	<0.22	50	50	57.8	59.7	116	119	80-125	80-125	80-125	3	20
m&p-Xylene	ug/L	<0.47	100	100	117	122	117	122	70-130	70-130	70-130	5	20
Methyl-tert-butyl ether	ug/L	<1.2	50	50	57.7	57.8	115	116	51-145	51-145	51-145	0	20
o-Xylene	ug/L	<0.26	50	50	58.4	59.4	117	119	70-130	70-130	70-130	2	20
Toluene	ug/L	<0.17	50	50	56.6	58.8	113	118	80-131	80-131	80-131	4	20
4-Bromofluorobenzene (S)	%							97	100	70-130	70-130	70-130	
Dibromofluoromethane (S)	%							108	110	70-130	70-130	70-130	

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: OLSON GOODMAN

Pace Project No.: 40187980

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:			1871132	1871133								
Parameter	Units	Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			40188010006	Spike Conc.								
Toluene-d8 (S)	%						101	102	70-130			

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

## REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: OLSON GOODMAN  
Pace Project No.: 40187980

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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

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: OLSON GOODMAN  
Pace Project No.: 40187980

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40187980001	1R	EPA 8260	321994		
40187980002	2A	EPA 8260	321994		
40187980003	2B	EPA 8260	321994		
40187980004	3A	EPA 8260	321994		
40187980005	3B	EPA 8260	321994		
40187980006	4	EPA 8260	321994		
40187980007	5	EPA 8260	322156		
40187980008	7	EPA 8260	321994		
40187980009	7P	EPA 8260	321994		
40187980010	9	EPA 8260	321994		
40187980011	9P	EPA 8260	321994		
40187980012	10A	EPA 8260	321994		
40187980013	10B	EPA 8260	321994		
40187980014	11A	EPA 8260	321994		
40187980015	11B	EPA 8260	322156		
40187980016	TRIP BLANK	EPA 8260	321994		

### REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

(Please Print Clearly)

Company Name:	Mendota Fertil
Branch/Location:	
Project Contact:	Ken Shinko
Phone:	715 832 6608
Project Number:	
Project Name:	Olson Goodman
Project State:	WI
Sampled By (Print):	Ken Shinko
Sampled By (Sign):	
PO #:	
Regulatory Program:	

**Data Package Options**

(billable)

 EPA Level III**MS/MSD** On your sample (billable) NOT needed on your sample**Matrix Codes**

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

PACE LAB #

CLIENT FIELD ID

## COLLECTION

DATE

TIME

## MATRIX

001

1B

5/16

6W

002

2A

003

2B

004

3A

005

3B

006

4

007

5

008

7

009

7P

010

9

011

9P

012

10A

013

10B

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

Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:

Email #2:

Telephone:

Fax:

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

UPPER MIDWEST REGION

MN: 612-607-1700 WI: 920-469-2436

Page 1 of 22

Page 10 of 10

**CHAIN OF CUSTODY**

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

 FILTERED?  
 (YES/NO)  
 PRESERVATION  
 (CODE)\*
 
 Y/N  
 Pick  
 Letter
 

Analysis Requested

PROCTNeph

X

Quote #:	40187980		
Mail To Contact:	Ken Shinko		
Mail To Company:	Mendota Fertil		
Mail To Address:	Z711 N. Felco Rd fall creek wp 54742		
Invoice To Contact:			
Invoice To Company:			
Invoice To Address:			
Invoice To Phone:			
CLIENT COMMENTS (Lab Use Only)	LAB COMMENTS (Lab Use Only)		Profile #
or			
PACE Project No.	40187980		
Receipt Temp = ROT			
Sample Receipt pH			
OK / Adjusted			
Cooler Custody Seal			
Present Not Present			
Intact / Not Intact			

Relinquished By:  
Date/Time:  
5/20/19Received By:  
Date/Time:  
5/20/19Relinquished By:  
Date/Time:  
5/21/19 0837Received By:  
Date/Time:  
5/21/19 0837Relinquished By:  
Date/Time:  
 Received By:  
 Date/Time:

(Please Print Clearly)

Company Name:	Meridian Project	
Branch/Location:		
Project Contact:	Ken Shinko	
Phone:	715 832 6608	
Project Number:		
Project Name:	Olson Goodman	
Project State:	WI	
Sampled By (Print):	Ken Shinko	
Sampled By (Sign):		
PO #:		Regulatory Program:

**Data Package Options**

(billable)

 EPA Level III EPA Level IV**MS/MSD** On your sample  
(billable) NOT needed on  
your sample**Matrix Codes**

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

PACE LAB #

CLIENT FIELD ID

COLLECTION

DATE

TIME

MATRIX

014

11A

5/16

Bw

X

015

11B

X

016

Trip Blaet ①

① In shipment Lab added to COC  
5/21/19 sec

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

Transmit Prelim Rush Results by (complete what you want):

Email #1:

Email #2:

Telephone:

Fax:

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

Relinquished By:	Date/Time:	Received By:	Date/Time:	PACE Project No.
	5/20/19	fedEx	5/20/19	40187980
Relinquished By:	Date/Time:	Received By:	Date/Time:	Receipt Temp = ROT °C
	5-21-19 0837	Luisant Alpha	5-21-19 0837	
Relinquished By:	Date/Time:	Received By:	Date/Time:	Sample Receipt pH
				OK / Adjusted
Relinquished By:	Date/Time:	Received By:	Date/Time:	Cooler Custody Seal
				Present / Not Present
Relinquished By:	Date/Time:	Received By:	Date/Time:	Intact / Not Intact

**UPPER MIDWEST REGION**

MN: 612-607-1700 WI: 920-469-2436

Page 2 of 22

Page 20 of 22

**CHAIN OF CUSTODY**

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

FILTERED?  
(YES/NO)PRESERVATION  
(CODE)\*

Y/N

Pick  
Letter

Analyses Requested

PROJECT NUMBER

Quote #:			
Mail To Contact:	Ken Shinko		
Mail To Company:	Meridian Project		
Mail To Address:	2711 N. Elcond Fall Creek WI		
Invoice To Contact:			
Invoice To Company:	547472		
Invoice To Address:			
Invoice To Phone:			
CLIENT COMMENTS (Lab Use Only)	LAB COMMENTS (Lab Use Only)		Profile #

# Sample Preservation Receipt Form

Client Name:

*Meridian Env.*

Project # 60187980

Pace Analytical Services, LLC  
1241 Bellevue Street, Suite 218  
Green Bay, WI 54302  
Page 21822

All containers needing preservation have been checked and noted below:  Yes  No  N/A

Lab Lot# of pH paper:

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

Initial when completed:

Date/  
Time:

Pace Lab #	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3B	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU	SP5T	ZPLC	GN	VOA Vials (>6mm)*	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	Glass	Plastic	Vials	Jars	General	VOA Vials (>6mm)*	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2																							
001																													2.5 / 5 / 10				
002																													2.5 / 5 / 10				
003																													2.5 / 5 / 10				
004																													2.5 / 5 / 10				
005																													2.5 / 5 / 10				
006																													2.5 / 5 / 10				
007																													2.5 / 5 / 10				
008																													2.5 / 5 / 10				
009																													2.5 / 5 / 10				
010																													2.5 / 5 / 10				
011																													2.5 / 5 / 10				
012																													2.5 / 5 / 10				
013																													2.5 / 5 / 10				
014																													2.5 / 5 / 10				
015																													2.5 / 5 / 10				
016																													2.5 / 5 / 10				
017																													2.5 / 5 / 10				
018																													2.5 / 5 / 10				
019																													2.5 / 5 / 10				
020																													2.5 / 5 / 10				

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

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

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3B	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	



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: Meridian

Project #

WO# : **40187980**

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

Tracking #: 787364656293



40187980

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: ROT /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: 5-21-19  
Initials: SPD

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 type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>Not in filter preservation, 5-21-19</u>
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3. <u>Collect times, CC.</u>
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time: - VOA Samples frozen upon receipt	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume: 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	8.	
Correct Containers Used: -Pace Containers Used: -Pace IR Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12. <u>No date</u>
Trip Blank Present: Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	13. <u>In shipment Lab added</u>
Pace Trip Blank Lot # (if purchased):	<u>41b</u>	<u>to COC. 5-21-19 spe</u>

#### Client Notification/ Resolution:

If checked, see attached form for additional comments

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

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

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Project Manager Review: BB

Date: 5-21-19