Meridian Environmental Consulting, LLC

January 4, 2018

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

Subject: **Progress Report:**

- Install MW-8C
- Determine well construction at 14789 Hwy. 73 (Keepers)
- Provide Bottled Water at Keepers
- Replacement Filters at Convenience Store
- Ground Water Sampling

Site: Jim's Bar
W14764 Highway 73
Jump River, Wisconsin
PECFA No. 54433-9769-64
DNR BRRTS No. 03-61-000116
Meridian No. 05F781

Dear Carrie:

This progress report describes the work completed in the past 6 months at the above referenced site. The objective of this work was to determine whether the petroleum contamination from the Jim's Bar site was impacting the private wells at 14789 Hwy. 73 (Keepers) and at 8891 Bridge St. ('Store').

This work included:

- Install MW-8C
- Determine well construction at 14789 Hwy. 73 (Keepers)
- Provide Bottled Water at 14789 Hwy. 73 (Keepers)
- Replacement Filters at Store
- Ground Water Sampling

Based on the results of this work, the source of the impacts (benzene primarily) in the water supply wells at 14789 Hwy. 73 (Keepers) and at 8891 Bridge (Store) appear to be from the Jim's Bar site.

There are several possible solutions to address this issue including replacement well(s) or permanent water filtration systems at each property. In addition, onsite remediation (Soil Vapor Extraction and Air Sparging) could be employed to reduce the petroleum impacts (soil and ground water) at the site.

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BACKGROUND INFORMATION

The reader is referred to file reports for detailed background information regarding the site. A brief summary is provided here.

The site is a small tavern/residence (Jim's Bar) located in the small, unincorporated village of Jump River, Taylor County, Wisconsin (Figures 1 and 2). Residents of the village utilize private wells and septic systems (Figure 3).

Two underground storage tanks (gasoline) were removed from the site in August 1993. The pumps were located on top of each tank. The tanks were installed about 1966. Petroleum impacts were measured in the soil when the tanks were removed.

Soil borings and monitoring wells (Figure 4) were installed to characterize the site conditions. Tables 1, 2, 3, 4, and 5 summarize the soil and ground water data collected for this project. Based on this work, a remedial excavation was completed in October 2013.

Vapor intrusion sampling was completed in 2016 by collecting air samples from a vapor point in the basement and an air sample from the crawl space. The results are provided in Table 6. The samples did not measure vapor concentrations above screening levels.

RECENT WORK

Benzene has been detected in two private wells: 14789 Hwy. 73 (Keepers) and 8891 Bridge (Store) (Figures 2 and 3). To investigate the source of the benzene in the private wells, the following tasks were undertaken.

- **Install MW-8C**

A monitoring well (MW-8C) was installed adjacent to MW-8A & MW-8B. The new well (MW-8C) was screened from 55 – 60 ft below grade. The soil boring and well log is in Appendix A.

- **Determine well construction of 14789 Hwy. 73 (Keepers) well**

Meridian met with a plumber (Romig Plumbing of Gilman) October 23, 2017 to determine the construction details of the well at 14789 Hwy. 73 (Keepers). The well was found to be a 4-inch diameter steel well located in the house. The well utilizes a "jet pump" to obtain water from the well. A steel wire ("electrician snake") was inserted into the well cap to determine the well depth. The steel wire went to 50 ft which was interpreted to be the top of the pump chamber (Venturi) and/or foot valve at depth. The plumber estimated the depth of the well to be at least 55 - 60 feet deep which is typical for the area.

- **Ground Water Sampling**

The monitoring well network was sampled twice: July 24 and October 23, 2017. The analytical reports are provided in Appendix B and summarized in Table 2. Tables 3 and 4 document the ground water level measurements and natural attenuation parameters, respectively.

Provide Bottled Water for 14789 Hwy. 73 (Keepers)

Bottled water has been provided as needed to the occupants of 14789 Hwy. 73 for the past two years. If this is to continue, additional funding will be needed.

Change Carbon Filters at Filtration System (8891 Bridge – Store)

The filters for the carbon filtration system at 8891 Bridge (convenience store) are changed every 3 months. If this is to continue, additional funding will be needed.

DATA EVALUATION

The installation of MW-8C confirmed earlier interpretations of the site hydrogeology.

Figure 5 is a cross-section illustrating our interpretation of the site geology based on the soil boring and well logs. There are two water bearing units at this site: a shallow sand and gravel layer and a deeper sand and gravel layer. The shallow, unconfined ground water bearing unit is found about 15 – 20 ft below grade. The deeper sand and gravel aquifer is found about 50 feet below grade. Approximately 20 – 30 feet of fine-grained heterogenous sediments (silty sand, clayey sand, sandy silt, sandy clay) referred locally as 'hardpan' separate the two layers.

Area wells obtain their water supply from the deeper sand and gravel aquifer. The potable wells are typically 60 feet deep.

Flow in the shallow ground water unit appears to be southerly based on the impacts measured in monitoring wells MW-5, -6, -7, -9A, and MW-9B (Figure 6). However, the gradient is relatively flat and the flow direction may vary with precipitation, river stage, seasonally, etc. In addition, an old storm sewer located along the edge of Hwy. 73 at the site may have allowed lateral migration of petroleum impacts.

Flow direction in the deeper aquifer (about 50 – 60 feet below grade) is not known. However, regional drainage (e.g., Jump River) is to the west/southwest and flow in the deeper aquifer may behave similarly. In addition, ground water flow in the deeper aquifer may be influenced locally by pumping in the water wells.

It is important to note there is a downward vertical gradient as measured in the MW-8, MW-9, and MW-10 well nests (Table 3). Although vertical flow in the hardpan is slower and contaminant transport is inhibited by the heterogeneous, fine-grained sediments in the hardpan, there appears to be some communication between the shallow water table impacts and the deeper sand and gravel aquifer. This likely explains the benzene and MTBE impacts measured in the private water wells located at 14789 Hwy. 73, 8891 Bridge, 8890 Bridge, and 14778 River St. (see Figure 3 and Table 2).

CONCLUSIONS AND RECOMMENDATIONS

The installation and sampling of MW-8C and the investigation of the well construction at 14789 Hwy 73 (Keepers) well suggests the contaminant plume emanating from Jim's Bar is impacting the sand and gravel aquifer at depth. The concentrations are low but do exceed NR140 Preventive Action Limits (PAL) and Enforcement Standards (ES) at times.

The simplest solution is to install and maintain water filtration devices (carbon) at each property. This will remove benzene impacts from the water before use. The carbon filters are changed regularly (typically quarterly).

Another solution is to install a replacement well(s) for each property. Caution will be needed because wells in this area can sometimes have higher arsenic levels. In addition, pumping can draw impacted ground water to the new well.

The source area (soil and ground water) could be remediated further by installing a temporary soil vapor extraction system (SVE)/Air Sparging system. The site conditions (i.e., coarse sand and gravel sediments, shallow depth to ground water, fine-grained surface cap) are ideal for this type of remediation. This temporary system would remove residual impacts from the perimeter of the excavation and reduce the impacts in the ground water.

Please contact me with any questions regarding the content of this report or the project in general.

Sincerely,
MERIDIAN ENVIRONMENTAL CONSULTING, LLC

Kenneth Shimko, PG
Project Manager

TABLES

Table 1: Soil Analytical Data
Jim and Cindy's Bar
Jump River, Wisconsin
Meridian No. 05F781

Sample	Depth	PID	1,2,4-TMB	1,3,5-TMB	Benzene	Ethylbenzene	m&p-Xylene	o-Xylene	Total Xylenes	MTBE	Naphthalene	Toluene	GRO
Units	*ft*	*iu*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*
NTEDC			89.8	182	1.49	7.47			258	59.4	5.15	818	
Soil to GW RCL					0.005	1.57			3.94		0.659	1.107	
Tank Closure Soil Sampling (August 18, 1993)													
T1	12	"pegged"	22	7.2	**3.7**	1.5	--	--	22	<.5	--	7.9	340
T2	9	"pegged"	39	22	**10**	**21**	--	--	77	4.6	--	34	1500
Geoprobe Borings (October 3, 2011)													
GP-1: 3-4	3-4	50	**495**	161	**73.2**	**179**	928	328	**1256**	<5.07	**81.1**	728	8610
GP-1: 7-8	7-8	70	42.8	16	**13.2**	**21.1**	90.6	30.3	120.9	2.78	**7.81**	90.5	--
GP-2: 3-4	3-4	60	18.9	7.21	0.648	1.88	14.8	6.09	20.89	<.24	4.15	4.36	--
GP-2: 7-8	7-8	110	**189**	67.4	**4.91**	**23.1**	159	68	227	<.514	**31.6**	50	--
GP-3: 3-4	3-4	3	0.141	0.079	0.197	0.172	0.593	0.204	0.797	<.025	<.019	0.882	--
GP-3: 7-8	7-8	1	0.1	0.062	0.202	0.143	0.47	0.157	0.627	<.026	<.019	0.87	--
GP-4: 3-4	3-4	1	<.013	<.018	0.109	0.067	0.182	0.08	0.262	<.024	<.018	0.224	--
GP-4: 7-8	7-8	0	0.072	<.019	0.18	0.1	0.246	0.129	0.375	<.025	<.019	0.464	--
GP-5: 3-4	3-4	1	0.13	0.066	0.105	0.124	0.448	0.163	0.611	<.024	<.018	0.477	--
GP-5: 7-8	7-8	1	<.013	<.018	0.095	0.074	0.163	0.07	0.233	<.024	<.018	0.24	--
GP-6: 3-4	3-4	0	0.124	<.018	0.076	0.092	0.321	0.121	0.442	<.024	<.018	0.267	--
GP-6: 7-8	7-8	3	2.68	1.15	0.782	1.04	4.18	1.39	5.57	<.13	0.681	1.98	--
GP-7: 3-4	3-4	50	**413**	141	**46.1**	**138**	721	255	**976**	<5.11	**65.3**	558	--
GP-7: 7-8	7-8	100	58.6	20.2	**5.42**	**20.2**	94.3	36.4	130.7	<.24	**9.14**	60.4	--
Excavation Confirmation Samples (10/24/13)													
N E	3		<.025	<.025	<.025	<.025	<.05	<.025	<.075	<.025	<.025	<.025	
N W	3		<.025	<.025	<.025	<.025	<.05	<.025	<.075	<.025	<.025	<.025	
E N	3		0.2	0.149	0.0764	0.249	0.776	0.121	0.896	<.0253	<.0253	0.0403	
E S	3		<.025	<.025	<.025	<.025	<.05	<.025	<.075	<.025	<.025	<.025	
S E	3		<.025	<.025	<.025	<.025	<.05	<.025	<.075	<.025	<.025	<.025	
S W	3		<.025	<.025	<.025	<.025	<.05	<.025	<.075	<.025	<.025	<.025	
W N	3		0.0324	<.025	<.025	<.025	<.05	<.025	<.075	<.025	<.025	<.025	
W S	3		0.0318	<.025	<.025	<.025	<.05	<.025	<.075	<.025	<.025	<.025	

Soil Samples from 14789 Hwy. 73 (Keepers)

K-1: 2-4	2-4	0	<.0287	<.0287	<.0287	<.0287	<.0575	<.0287	<.0862	<.0287	<.0287	<.0287	
K-1: 6-8	6-8	0	<.025	<.025	<.025	<.025	<.05	<.025	<.075	<.025	<.025	<.025	
K-1: 10-12	10-12	0	<.025	<.025	<.025	<.025	<.05	<.025	<.075	<.025	<.025	<.025	
K-2: 2-4	2-4	0	<.025	<.025	<.025	<.025	<.05	<.025	<.075	<.025	<.025	<.025	
K-2: 6-8	6-8	0	<.025	<.025	<.025	<.025	<.05	<.025	<.075	<.025	<.025	<.025	
K-2: 10-12	10-12	0	<.025	<.025	<.025	<.025	<.05	<.025	<.075	<.025	<.025	<.025	
K-2: 15-17	15-17	0	<.025	<.025	<.025	<.025	<.05	<.025	<.075	<.025	<.025	<.025	
K-1 (water sample)	20		<.00042	<.00042	<.0004	<.00039			<.0012	<.00048	<.00042	<.00039	
K-2 (water sample)	20		<.00042	<.00042	<.0004	<.00039			<.0012	<.00048	<.00042	<.00039	

Table 2: Ground Water Analytical Data
Jim and Cindy's Bar
Jump River, Wisconsin
Meridian No. 05F781

10 Concentration exceeds NR140 Enforcement Standard

Well	Date	1,2,4-TMB	1,3,5-TMB	Total TMB	Benzene	Ethylbenzene	m&p-xylene	o-xylene	Total Xylenes	MTBE	Naphthalene	Toluene
Units		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
NR140 Enforcement Standard				480	5	700			2000	60	100	800
Monitoring Well Sampling Results												
MW-1	installed 10/11/11											
	10/14/2011	2670	850	3520	1250	2080	4660	1900	6560	182	553	7110
	6/23/2012	1230	388	1618	682	619			3870	17.2J	157	2590
	5/14/2013	1480	436	1916	348	880			3850	14.3J	311	1650
	12/3/2013	382	66.2	448.2	278	367			608	8.7	62.6	476
	4/15/2014	648	145	793	219	439			1440	11.2	101	842
	1/20/2015	1390	392	1782	621	998			3760	<24.2	239	3480
	4/28/2015	585	124	709	223	344			1150	15.8	65.7	577
	7/29/2015	164	18.2	182.2	79.6	170			184	9.4	25.9	108
	12/8/2015	165	16.3	181.3	102	230			276	4.2	28.5	229
	3/31/2016	Not sampled due to ponding										
	6/7/2016	711	175	886	175	489			1480	8.5	115	966
	7/24/2017	1760	503	2263	617	1390			6010	<24.2	373	5640
	10/23/2017	1490	433	1923	252	1110			3560	<19.4	297	2030
MW-2	installed 10/11/11											
	10/14/2011	1810	619	2429	94.5	680	2350	251	2601	87.4	292	278
	6/23/2012	634	153	787	5.4	164			497	15.5	79.9	44.6
	5/14/2013	733	273	1006	39.3	234			753	11.9	114	95.8
	12/3/2013	203	60.2	263.2	68.3	127			276	12.7	53.6	75.8
	4/15/2014	617	194	811	72.3	295			750	16.4	119	175
	1/20/2015	436	162	598	24.5	155			334	11	63.7	42.7
	4/28/2015	576	206	782	32.1	183			430	34.9	77.7	70.8
	7/29/2015	469	168	637	18.1	128			284	30	57	39.2
	12/8/2015	286	75.6	361.6	21	135			238	10.8	68.2	33.9
	3/31/2016	481	161	642	39.2	183			362	10	74.7	83.7
	6/7/2016	422	164	586	19.5	110			260	13.8	51.3	38
	7/24/2017	275	79.6	354.6	6.7	84.6			154	23.3	43.8	13.8
	10/23/2017	355	130	485	36.5	167			304	11.8	61.4	118
MW-3	installed 10/11/11											
	10/14/2011	3980	1260	5240	1560	2910	10200	2280	12480	169	856	9780
	6/23/2012	3340	993	4333	742	2560			11200	<38.1	632	7910
	5/14/2013	3130	944	4074	978	2230			9720	<38.1	606	7450
	12/3/2013	3270	998	4268	662	2300			9720	<37.1	577	6850
	4/15/2014	2870	888	3758	663	2200			9100	<48.5	567	5520
	1/20/2015	2840	859	3699	605	1930			8610	<24.2	482	6350
	4/28/2015	2810	848	3658	572	1710			7780	<24.2	468	5480
	7/29/2015	2730	827	3557	436	1730			7180	<19.4	445	5000
	12/8/2015	2570	765	3335	378	1580			6600	<19.4	443	4340
	3/31/2016	2630	734	3364	371	1550			6430	<9.7	456	3980
	6/7/2016	2900	885	3785	365	1500			7360	<9.7	480	4320
	7/24/2017	3440	1020	4460	264	1330			7790	<19.4	567	3380
	10/23/2017	2990	925	3915	209	1260			6860	<19.4	464	3140
MW-4	installed 10/11/11											
	10/14/2011	2420	711	3131	1400	2380	6980	1890	8870	98.8	589	7460
	6/23/2012	3020	866	3886	1360	2370			10800	<19	686	7720
	5/14/2013	2770	809	3579	1660	2230			12300	<38.1	651	8760
	10/22/2013	well abandoned due to excavation										
MW-5	installed 5/6/13											
	5/14/2013	3090	919	4009	88.8	1120			4040	<19	655	387
	12/3/2013	2460	720	3180	103	770			2050	<9.3	450	223
	4/15/2014	3200	968	4168	82.5	890			2330	<12.1	501	201
	1/20/2015	SNOWPILE										
	4/28/2015	2670	842	3512	188	841			2340	<19.4	425	1020
	7/29/2015	2640	834	3474	61.9	848			2250	12.2	413	572
	12/8/2015	2680	833	3513	52.4	826			2110	<12.1	432	439
	3/31/2016	2190	617	2807	42.5	666			1380	<9.7	364	242
	6/7/2016	2320	737	3057	107	718			1750	<12.1	383	425
	7/24/2017	2930	856	3786	136	1550			5940	<24.2	728	2050
	10/23/2017	2800	897	3697	169	1020			3210	<9.7	536	1260
MW-6	installed 5/6/13											
	5/14/2013	2430	781	3211	44.6	1280			6470	16.1J	446	1810
	12/3/2013	2050	661	2711	41.5	747			2490	10.7	282	557
	4/15/2014	1080	336	1416	20.4	343			1280	<9.7	103	430
	1/20/2015	1650	514	2164	68.9	925			3720	<9.7	258	2060
	4/28/2015	1440	472	1912	15	492			1990	21.3	185	509
	7/29/2015	1540	550	2090	15.8	397			1770	18.8	177	475
	12/8/2015	1470	469	1939	43.3	726			2500	8.4	229	912
	3/31/2016	1160	400	1560	9.9	287			1050	7.1	117	245
	6/7/2016	1080	402	1482	13.3	261			957	9.9	106	261
	7/24/2017	1400	523	1923	8.3	334			1260	<9.7	160	224
	10/23/2017	1830	635	2465	53.2	848			3530	12	305	1370
MW-7	installed 5/7/13											
	5/14/2013	275	147	422	26.8	92.3			135	6.7J	41.4	29.2
	12/3/2013	116	33.4	149.4	18.8	85.6			131	6.7	33.2	19.7
	4/15/2014	80.7	30.9	111.6	12.4	53.4			69.8	9.3	19.8	13.5
	1/20/2015	256	81.7	337.7	15.6	211			443	6.9	80.7	34.3
	4/28/2015	206	62.7	268.7	5.4	133			275	16.3	59	14
	7/29/2015	133	32.3	165.3	3.7	72.2			118	14.5	38.6	5.6
	12/8/2015	115	36.5	151.5	3.6	45.8			75.5	7.6	24.1	4.1
	3/31/2016	95.3	27.5	122.8	11.7	58.4			74.2	5.3	28.4	9.2
	6/7/2016	121	33.7	154.7	14.3	116			168	8.1	52.7	17.5
	7/24/2017	299	85.9	384.9	32.1	238			431	10.2	103	69.5
	10/23/2017	175	48.3	223.3	6.5	125			173	3.6	48.5	20.9

Well	Date	1,2,4-TMB	1,3,5-TMB	Total TMB	Benzene	Ethylbenzene	m&p-xylene	o-xylene	Total Xylenes	MTBE	Naphthalene	Toluene
Units		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
NR140 Enforcement Standard				480	5	700			2000	60	100	800
MW-8A	installed 10/28/13											
	12/3/2013	<.33	<.36	<.36	<.34	<.34			<1	<.37	<.37	<.34
	4/15/2014	<.42	<.42	<.42	<.4	<.39			<1.2	3.4	<.42	<.39
	1/20/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	4/28/2015	<.42	<.42	<.42	<.4	<.39			<1.2	4.1	<.42	<.39
	7/29/2015	<.42	<.42	<.42	<.4	<.39			<1.2	0.96	<.42	<.39
	6/7/2016	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	7/24/2017	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	10/23/2017	<.42	<.42	<.42	<.4	.43J			<1.2	.85J	<.42	<.39
MW-8B	installed 10/28/13											
	12/3/2013	<.33	<.36	<.36	<.34	<.34			<1	<.37	<.37	<.34
	4/15/2014	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	1/20/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	4/28/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	7/29/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	6/7/2016	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	7/24/2017	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	10/23/2017	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
MW-8C	installed 7/10/17											
	7/24/2017	<.42	<.42	<.42	3.3	<.39			<1.2	1.1	<.42	<.39
	10/23/2017	<.42	<.42	<.42	<.4	<.39			<1.2	.68J	<.42	<.39
MW-9A	installed 10/28/13											
	12/3/2013	<.33	<.36	<.36	1.9	<.34			<1	1.7	<.37	<.34
	4/15/2014	<.42	<.42	<.42	<.4	0.97			<1.2	2	<.42	<.39
	1/20/2015	391	152	543	129	420			491	4.3	160	268
	4/28/2015	51.8	28.4	80.2	48.6	112			67	7.2	54.3	17.9
(9B ?)	7/29/2015	<.42	<.42	<.42	6	6			<1.2	4.8	0.58	0.76
	12/8/2015	<.42	<.42	<.42	0.74	<.39			<1.2	<.48	<.42	<.39
	3/31/2016	<.42	<.42	<.42	0.95	<.39			<1.2	0.49	<.42	<.39
	6/7/2016	159	48.8	207.8	21	131			123	2.2	54.4	49.2
	7/24/2017	1080	340	1420	108	853			2150	6.4	289	850
	10/23/2017	9.6	0.64	10.24	9.9	43.8			18.8	0.63	12.6	10.7
MW-9B	installed 10/28/13											
	12/3/2013	<.33	<.36	<.36	2.7	<.34			<1	<.37	1.1	<.34
	4/15/2014	<.42	<.42	<.42	2.1	<.39			<1.2	0.56	<.42	<.39
	1/20/2015	<.42	<.42	<.42	8.5	<.39			<1.2	0.7	<.42	<.39
	4/28/2015	<.42	<.42	<.42	1.7	<.39			<1.2	0.58	<.42	<.39
(9A ?)	7/29/2015	<.42	0.48	0.48	36.5	69.7			2.3	6.9	7.4	1.8
	12/8/2015	<.42	<.42	<.42	0.61	<.39			<1.2	0.5	0.46	<.39
	3/31/2016	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	6/7/2016	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	7/24/2017	206	81.1	287.1	36.9	318			701	5.7	63.4	214
	10/23/2017	172	102	274	83	545			587	3.9	127	251
MW-10A	installed 12/30/14											
	1/20/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	4/28/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	7/29/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	6/7/2016	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	7/24/2017	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	10/23/2017	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
MW-10B	installed 12/29/14											
	1/20/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	4/28/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	7/29/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	6/7/2016	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	7/24/2017	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	10/23/2017	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
MW-11	installed 4/20/15											
	4/28/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	7/29/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	6/7/2016	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	7/24/2017	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	10/23/2017	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39

Private Well Sampling Results													
Well	Date	1,2,4-TMB	1,3,5-TMB	Total TMB	Benzene	Ethylbenzene	m&p-xylene	o-xylene	Total Xylenes	MTBE	Naphthalene	Toluene
Units		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
NR140 Enforcement Standard				480	5	700			2000	60	100	800
Bar (onsite well)												
(basement)	10/14/2011	<.4	<.44	<.44	<.31	<.5	<.62	<.77	<.77	<.3	<2	<.37
(outside)	6/23/2012	<.05	<.086	<.086	<.047	<.078	<.15	<.12	<.27	<.048	<.11	<.065
	5/14/2013	<.43	<.4	<.43	<.39	<.41			<1.3	<.38	<.4	<.42
	12/3/2013	<.33	<.36	<.36	<.34	<.34			<1	<.37	<.37	<.34
	4/15/2014	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	1/20/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	4/28/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	7/29/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	12/8/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	6/7/2016	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	7/24/2017	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	10/23/2017	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
Lyne (14767 Hwy. 73)												
	6/23/2012	<.05	<.086	<.086	<.047	<.078	<.15	<.12	<.27	<.048	<.11	<.065
	5/14/2013	<.43	<.4	<.43	<.39	<.41			<1.3	<.38	<.4	<.42
	12/3/2013	<.33	<.36	<.36	<.34	<.34			<1	<.37	<.37	<.34
	4/15/2014	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	1/20/2015	Permission denied										
	4/28/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	7/29/2015	Permission denied										
8910 Elm (Mason)												
	6/23/2012	<.05	<.086	<.086	.075J	<.078	<.15	<.12	<.27	.18J	<.11	<.065
	5/14/2013	<.43	<.4	<.43	<.39	<.41			<1.3	<.38	<.4	<.42
	12/3/2013	<.33	<.36	<.36	<.34	<.34			<1	<.37	<.37	<.34
	4/15/2014	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	2/2/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	4/28/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	7/29/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	2
	12/8/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	6/7/2016	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	7/24/2017	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	10/23/2017	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
14789 State Hwy. 73 (Keepers)												
	6/23/2012	<.05	<.086	<.086	6	<.078	<.15	<.12	<.27	1.6	<.11	<.065
	5/14/2013	<.43	<.4	<.43	5.7	<.41			<1.3	1.3	<.4	<.42
	12/3/2013	<.33	<.36	<.36	0.4	<.34			<1	1	<.37	<.34
	4/15/2014	<.42	<.42	<.42	<.4	<.39			<1.2	0.99	<.42	<.39
	1/20/2015	<.42	<.42	<.42	4.7	<.39			<1.2	0.99	<.42	<.39
	2/2/2015	<.42	<.42	<.42	5.2	<.39			<1.2	1	<.42	<.39
	4/28/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	7/29/2015	<.42	<.42	<.42	3.3	<.39			<1.2	1.1	<.42	<.39
	12/1/2015	<.42	<.42	<.42	5.2	<.39			<1.2	1.3	<.42	<.39
	6/7/2016	<.42	<.42	<.42	5.9	<.39			<1.2	1.1	<.42	<.39
	7/24/2017	<.42	<.42	<.42	35.5	<.39			<1.2	1.3	<.42	<.39
	10/23/2017	<.42	<.42	<.42	4	<.39			<1.2	1.1	<.42	<.39
14810 Hwy. 73 (cabin north of store - owner Gasior)												
	4/28/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	7/29/2015	unavailable due to occupancy										
	6/7/2016	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
14778 River Street (Milam)												
	5/14/2013	<.57	<2.5	<2.5	<.5	<.5	<.82	<.5	<.82	<.49	<2.5	<.44
	12/3/2013	No one home										
	4/15/2014	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	1/20/2015	No one home										
	4/28/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	7/29/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	7/24/2017											
	10/23/2017											
Community Center												
	5/14/2013	<.57	<2.5	<2.5	<.5	<.5	<.82	<.5	<.82	<.49	<2.5	<.44
	12/3/2013	<.33	<.36	<.36	<.34	<.34			<1	<.37	<.37	<.34
	4/15/2014	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	1/20/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	4/28/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	7/29/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	12/8/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	6/7/2016	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	7/24/2017	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	10/23/2017	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
8887 Bridge St.												
	5/14/2013	<.57	<2.5	<2.5	<.5	<.5	<.82	<.5	<.82	<.49	<2.5	<.44
	12/3/2013	<.33	<.36	<.36	<.34	<.34			<1	<.37	<.37	<.34
	4/15/2014	<.42	<.42	<.42	<.4	<.39			<1.2	0.55	<.42	<.39
	1/20/2015	Not sampled										
	4/28/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	7/29/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	7/24/2017	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	10/23/2017	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39

Well	Date	1,2,4-TMB	1,3,5-TMB	Total TMB	Benzene	Ethylbenzene	m&p-xylene	o-xylene	Total Xylenes	MTBE	Naphthalene	Toluene
Units		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
NR140 Enforcement Standard				480	5	700			2000	60	100	800
8890 Bridge St. (McVicker)												
	5/14/2013	<.57	<2.5	<2.5	<.5	<.5	<.82	<.5	<.82	.71J	<2.5	<.44
	12/3/2013	<.33	<.36	<.36	<.34	<.34			<1	0.97	<.37	<.34
	4/15/2014	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	1/20/2015	<.42	<.42	<.42	<.4	<.39			<1.2	1	<.42	<.39
	4/28/2015	<.42	<.42	<.42	<.4	<.39			<1.2	0.99	<.42	<.39
	7/29/2015	<.42	<.42	<.42	<.4	<.39			<1.2	1.2	<.42	<.39
	12/8/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	6/7/2016	<.42	<.42	<.42	<.4	<.39			<1.2	1	<.42	<.39
	7/24/2017	<.42	<.42	<.42	<.4	<.39			<1.2	.77J	<.42	<.39
	10/23/2017	<.42	<.42	<.42	<.4	<.39			<1.2	.76J	<.42	<.39
8891 Bridge St (new well at new store)												
Outside	12/3/2013	<.33	<.36	<.36	2	<.34			<1	1.4	<.37	0.42
Outside	4/15/2014	<.42	<.42	<.42	<.4	<.39			<1.2	1.6	<.42	<.39
Outside	1/20/2015	<.42	<.42	<.42	35.6	1.2			<1.2	2.1	<.42	<.39
Inside	2/2/2015	<.42	<.42	<.42	32	1.2			<1.2	2.4	<.42	<.39
Outside	2/2/2015	<.42	<.42	<.42	28.7	1.2			<1.2	2.1	<.42	<.39
Outside	2/23/2015	<.42	<.42	<.42	21.5	1.4			<1.2	2.1	<.42	<.39
Treated	2/23/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
Treated	4/28/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
Outside	4/28/2015	<.42	<.42	<.42	23.9	1.4			<1.2	2.1	<.42	<.39
Outside	7/29/2015	<.42	<.42	<.42	5.4	0.69			<1.2	2.6	<.42	<.39
Treated	7/29/2015	<.42	<.42	<.42	0.66	<.39			<1.2	<.48	<.42	<.39
Outside	12/8/2015	<.42	<.42	<.42	4.2	0.64			<1.2	2.7	<.42	<.39
Treated	12/8/2015	Not sampled per DNR										
Outside	3/31/2016	<.42	<.42	<.42	1.5	0.7			<1.2	2.1	<.42	<.39
Treated	3/31/2016	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
Outside	6/7/2016	<.42	<.42	<.42	0.49	<.39			<1.2	2	<.42	<.39
Treated	6/7/2016	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
Outside	7/24/2017	<.42	<.42	<.42	<.4	<.39			<1.2	1.2	<.42	<.39
Treated	7/24/2017	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
Outside	10/23/2017	<.42	<.42	<.42	<.4	<.39			<1.2	.86J	<.42	<.39
Treated	10/23/2017	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
8897 Birch Drive (grab sample with bailer)												
	4/28/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	12/8/2015	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	7/24/2017	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39
	10/23/2017	<.42	<.42	<.42	<.4	<.39			<1.2	<.48	<.42	<.39

Table 3: Ground Water Level Measurements
Jim and Cindy's Bar
Jump River, Wisconsin
Meridian No. 05F781

MW-1 (installed 10/11/11)		
Surface Elevation (ft)		100.25
Top of Casing elevation (ft)		100
Top of Screen Elevation (ft)		84
Bottom of Screen Elevation (ft)		74
Measurement Date	DTW (ft)	GW Elev (ft)
10/14/2011	17.05	82.95
10/28/2011	17.2	82.8
6/23/2012	16.88	83.12
5/14/2013	16.14	83.86
12/3/2013	NM	NM
Resurvey April 15, 2014		**100**
4/15/2014	16.16	83.84
1/20/2015	16.21	83.79
4/28/2015	16.45	83.55
7/29/2015	16.6	83.4
12/8/2015	16.9	83.1
3/31/2016	Flooded - pond	
Resurvey June 7, 2016	**100 (6/7/16)(use 99.89 for future meas due to cut PVC)**	
6/7/2016	15.77	84.23
7/24/2017	15.3	84.59
10/23/2017	16.98	82.91

MW-2 (installed 10/11/11)		
Surface Elevation (ft)		100.25
Top of Casing elevation (ft)		100.01
Top of Screen Elevation (ft)		84
Bottom of Screen Elevation (ft)		74
Measurement Date	DTW (ft)	GW Elev (ft)
10/14/2011	16.98	83.03
10/28/2011	17.19	82.82
6/23/2012	16.83	83.18
5/14/2013	16.11	83.9
12/3/2013	17.48	82.53
Resurvey April 15, 2014		**100.01**
4/15/2014	16.19	83.82
1/20/2015	16.17	83.84
4/28/2015	16.42	83.59
7/29/2015	16.57	83.44
12/8/2015	16.87	83.14
3/31/2016	15.47	84.54
Resurvey June 7, 2016		**99.95**
6/7/2016	15.72	84.23
7/24/2017	15.29	84.66
10/23/2017	16.95	83

MW-3 (installed 10/11/11)		
Surface Elevation (ft)		100.75
Top of Casing elevation (ft)		100.54
Top of Screen Elevation (ft)		84.5
Bottom of Screen Elevation (ft)		74.5
Measurement Date	DTW (ft)	GW Elev (ft)
10/14/2011	17.6	82.94
10/28/2011	17.78	82.76
6/23/2012	17.46	83.08
5/14/2013	16.72	83.82
12/3/2013	18.07	82.47
Resurvey April 15, 2014		**100.54**
4/15/2014	16.78	83.76
1/20/2015	16.78	83.76
4/28/2015	17.02	83.52
7/29/2015	17.15	83.39
12/8/2015	17.46	83.08
3/31/2016	16.08	84.46
Resurvey June 7, 2016		**100.51**
6/7/2016	16.31	84.2
7/24/2017	15.91	84.6
10/23/2017	17.6	82.91

MW-4 (installed 10/11/11)		
Surface Elevation (ft)		100.75
Top of Casing elevation (ft)		100.35
Top of Screen Elevation (ft)		84.5
Bottom of Screen Elevation (ft)		74.5
Measurement Date	DTW (ft)	GW Elev (ft)
10/14/2011	17.45	82.9
10/28/2011	17.61	82.74
6/23/2012	17.3	83.05
5/14/2013	16.55	83.8
Well abandoned 10/22/13		

MW-5 (installed 5/6/13)		
Surface Elevation (ft)		100.75
Top of Casing elevation (ft)		100.5
Top of Screen Elevation (ft)		84.25
Bottom of Screen Elevation (ft)		74.25
Measurement Date	DTW (ft)	GW Elev (ft)
5/14/2013	16.68	83.82
12/3/2013	18.02	82.48
Resurvey April 15, 2014		**100.53**
4/15/2014	16.73	83.8
1/20/2015	SNOWPILE	
4/28/2015	16.92	83.61
7/29/2015	17.05	83.48
12/8/2015	17.35	83.18
3/31/2016	15.95	84.58
Resurvey June 7, 2016		**100.38**
6/7/2016	16.18	84.2
7/24/2017	15.74	84.64
10/23/2017	17.42	82.96

MW-6 (installed 5/6/13)		
Surface Elevation (ft)		100
Top of Casing elevation (ft)		99.85
Top of Screen Elevation (ft)		85
Bottom of Screen Elevation (ft)		75
Measurement Date	DTW (ft)	GW Elev (ft)
5/14/2013	15.95	83.9
12/3/2013	17.33	82.52
Resurvey April 15, 2014		**99.86**
4/15/2014	15.98	83.88
1/20/2015	16.05	83.81
4/28/2015	16.28	83.58
7/29/2015	16.23	83.63
12/8/2015	16.7	83.16
3/31/2016	15.25	84.61
Resurvey June 7, 2016		**99.81**
6/7/2016	15.45	84.36
7/24/2017	15.02	84.79
10/23/2017	16.82	82.99

MW-7 (installed 5/7/13)		
Surface Elevation (ft)		100.5
Top of Casing elevation (ft)		100.14
Top of Screen Elevation (ft)		86
Bottom of Screen Elevation (ft)		76
Measurement Date	DTW (ft)	GW Elev (ft)
5/14/2013	16.3	83.84
12/3/2013	17.65	82.49
Resurvey April 15, 2014		**100.21**
4/15/2014	16.37	83.84
1/20/2015	16.4	83.81
4/28/2015	16.64	83.57
7/29/2015	16.78	83.43
12/8/2015	17.08	83.13
3/31/2016	15.68	84.53
Resurvey June 7, 2016		**100.15**
6/7/2016	15.93	84.22
7/24/2017	15.51	84.64
10/23/2017	17.19	82.96

MW-8A (installed 10/28/13)		
Surface Elevation (ft)		99.75
Top of Casing elevation (ft)		99.54
Top of Screen Elevation (ft)		84.75
Bottom of Screen Elevation (ft)		74.75
Measurement Date	DTW (ft)	GW Elev (ft)
12/3/2013	17.06	82.48
Resurvey April 15, 2014		**99.54**
4/15/2014	15.37	84.17
1/20/2015	15.5	84.04
4/28/2015	15.85	83.69
7/29/2015	16.01	83.53
12/8/2015	16.3	83.24
3/31/2016	Not Measured	
Resurvey June 7, 2016		**99.47**
6/7/2016	15.13	84.34
7/24/2017	14.88	84.59
10/23/2017	16.44	83.03

MW-8B (installed 10/28/13)		
Surface Elevation (ft)		99.7
Top of Casing elevation (ft)		99.49
Top of Screen Elevation (ft)		84.7
Bottom of Screen Elevation (ft)		59.7
Measurement Date	DTW (ft)	GW Elev (ft)
12/3/2013	18.51	80.98
Resurvey April 15, 2014		**99.49**
4/15/2014	16.21	83.28
1/20/2015	17.27	82.22
4/28/2015	17.48	82.01
7/29/2015	18.1	81.39
12/8/2015	17.96	81.53
3/31/2016	Not Measured	
Resurvey June 7, 2016		**99.44**
6/7/2016	16.83	82.61
7/24/2017	17.24	82.2
10/23/2017	17.84	81.6

MW-8C (installed 7/10/17)		
Surface Elevation (ft)		100
Top of Casing elevation (ft)		99.43
Top of Screen Elevation (ft)		45
Bottom of Screen Elevation (ft)		40
Measurement Date	DTW (ft)	GW Elev (ft)
7/24/2017	18.7	80.73
10/23/2017	19.26	80.17

MW-9A (installed 10/28/13)		
Surface Elevation (ft)		101
Top of Casing elevation (ft)		100.95
Top of Screen Elevation (ft)		86
Bottom of Screen Elevation (ft)		76
Measurement Date	DTW (ft)	GW Elev (ft)
12/3/2013	18.5	82.45
Resurvey April 15, 2014		**100.95**
4/15/2014	17.11	83.84
1/20/2015	17.13	83.82
4/28/2015	17.37	83.58
7/29/2015	17.5	83.45
12/8/2015	17.8	83.15
3/31/2016	16.4	84.55
Resurvey June 7, 2016		**100.82**
6/7/2016	16.64	84.18
7/24/2017	16.22	84.6
10/23/2017	17.87	82.95

MW-9B (installed 10/28/13)		
Surface Elevation (ft)		100.5
Top of Casing elevation (ft)		100.44
Top of Screen Elevation (ft)		65.5
Bottom of Screen Elevation (ft)		60.5
Measurement Date	DTW (ft)	GW Elev (ft)
12/3/2013	18.98	81.46
		100.44
4/15/2014	18	82.44
1/20/2015	17.77	82.67
4/28/2015	18.1	82.34
7/29/2015	18.61	81.83
12/8/2015	23.65	76.79
3/31/2016	18	82.44
Resurvey June 7, 2016		**100.27**
6/7/2016	17.79	82.48
7/24/2017	17.27	83
10/23/2017	18.18	82.09

MW-10A (installed 12/30/14)	(25 ft deep)	
Surface Elevation (ft)		100
Top of Casing elevation (ft)		99.79
Top of Screen Elevation (ft)		85
Bottom of Screen Elevation (ft)		75
Measurement Date	DTW (ft)	GW Elev (ft)
Surveyed 5/1/15		**99.79**
1/20/2015	15.92	83.87
4/28/2015	15.92	83.87
7/29/2015	16.15	83.64
Resurvey June 7, 2016		**99.87**
6/7/2016	15.29	84.58
7/24/2017	15.2	84.67
10/23/2017	16.74	83.13

MW-10B (installed 12/29/14)	(60 ft deep)	
Surface Elevation (ft)		100
Top of Casing elevation (ft)		99.87
Top of Screen Elevation (ft)		45
Bottom of Screen Elevation (ft)		40
Measurement Date	DTW (ft)	GW Elev (ft)
Surveyed 5/1/15		**99.87**
1/20/2015	18.78	81.09
4/28/2015	19.29	80.58
7/29/2015	20.03	79.84
Resurvey June 7, 2016		**99.89**
6/7/2016	18.48	81.41
7/24/2017	19.13	80.76
10/23/2017	19.4	80.49

MW-11 (installed 4/20/15)	(65 ft deep)	
Surface Elevation (ft)		103
Top of Casing elevation (ft)		102.63
Top of Screen Elevation (ft)		43
Bottom of Screen Elevation (ft)		38
Measurement Date	DTW (ft)	GW Elev (ft)
Surveyed 5/1/15		**102.63**
1/20/2015	18.78	83.85
4/28/2015	23.81	78.82
7/29/2015	24.69	77.94
(not resurveyed)		
6/7/2016	23.17	79.46
7/24/2017	23.74	78.89
10/23/2017	24.2	78.43

Table 4: Natural Attenuation Measurements

Jim's Bar
Jump River, Wisconsin
Meridian No. 05F781

Well	Date	DO	pH	Temp	K	ORP
		ppm		Celcius	uS	
MW-1						
	4/28/2015	<<1	6.72	11.6	911	
	7/29/2015	1	6.84	13.6	922	
	12/8/2015	0	7.94	10.2	811	-66
	6/7/2016	0	7.89	11.3	1044	-55
	7/24/2017	0	6.85	17.5	841	-87
	10/23/2017	0	7.01	12.4	574	-73
MW-2						
	4/28/2015	<<1	6.58	10.2	461	
	7/29/2015	<1	6.8	14.1	500	
	12/8/2015	0	7.14	10.9	413	-58
	3/31/2016	0	7.55	7	684	3
	6/7/2016	<<1	7.31	10.5	524	-58
	7/24/2017	0	7.24	13.4	411	-55
	10/23/2017	0	7.12	11.8	352	-78
MW-3						
	4/28/2015	<<1	7.01	10.5	1068	
	7/29/2015	<1	6.87	12.8	1057	
	12/8/2015	0	6.84	10.8	1090	-6
	3/31/2016	0	8.13	7.9	1235	104
	6/7/2016	0	7.12	11.8	1099	-60
	7/24/2017	0	7.19	13.2	629	-62
	10/23/2017	0	6.99	12.4	426	-68
MW-5						
	4/28/2015	<<1	7.17	11.6	725	
	7/29/2015	<1	7.71	14.1	753	
	12/8/2015	0	6.79	11.3	763	-1
	3/31/2016	0	7.27	7.3	976	35
	6/7/2016	0	6.94	11.5	1156	-36
	7/24/2017	0	7.03	15.4	405	-54
	10/23/2017	0	6.93	12.1	509	-61
MW-6						
	4/28/2015	<<1	6.17	11.8	1850	
	7/29/2015	1	6.51	14.2	990	
	12/8/2015	0	6.95	10.4	13.38	14
	3/31/2016	1	7.08	6	1505	7
	6/7/2016	<1	7	13.2	1608	-29
	7/24/2017	<<1	7.8	16.4	818	-60
	10/23/2017	0	6.76	12.9	1157	-52
MW-7						
	4/28/2015	<<1	6.67	12.2	590	
	7/29/2015	<1	7.03	14.6	580	
	12/8/2015	0	7.16	10.8	503	-26
	3/31/2016	<1	7.15	6.7	980	-22
	6/7/2016	0	7.23	13.3	728	2
	7/24/2017	2	6.81	16.1	866	-62
	10/23/2017	0	6.97	14.1	487	-65

Measurements collected in the field

Well	Date	DO	pH	Temp	K	ORP
		ppm		Celcius	uS	
MW-8A						
	4/28/2015	<<1	6.05	11.3	3200	
	7/29/2015	4	6.32	12.9	2930	
	6/7/2016	<<1	7.17	13.9	319	-12
	7/24/2017	<1	6.58	13.8	2380	-19
	10/23/2017	0	7.46	11.2	1878	-50
MW-8B						
	4/28/2015	1	6.23	11.9	932	
	7/29/2015	1	6.49	12.7	948	
	6/7/2016	1	7.01	11.4	1004	0
	7/24/2017	1	6.79	13.4	822	-31
	10/23/2017	<1	7.27	9.9	831	-57
MW-8C						
	7/24/2017	4	6.84	13.9	798	-83
	10/23/2017	<1	6.91	9.5	769	-68
MW-9A						
	4/28/2015	4	6.62	12.6	1284	
	7/29/2015	4	6.63	14.3	1024	
	12/8/2015	0	6.95	10.6	908	27
	3/31/2016	1	7.3	7.2	934	27
	6/7/2016	1	6.92	11.9	1363	-9
	7/24/2017	8	6.83	18.1	740	27
	10/23/2017	<<1	6.92	13	968	-54
MW-9B						
	4/28/2015	4	6.23	13.7	636	
	7/29/2015	<1	6.61	15.6	812	
	12/8/2015	1	7.02	9.5	720	28
	3/31/2016	3	7.47	7.9	605	28
	6/7/2016	<1	7	12.7	646	-24
	7/24/2017	4	7.22	16.8	629	-47
	10/23/2017	<<1	6.89	10.2	724	-52
MW-10A						
	4/28/2015	2	6.25	10.5	312	
	7/29/2015	2	7.02	16.2	301	
	6/7/2016	2	7.05	11.2	270	40
	7/24/2017	1	7.62	14.8	280	-55
	10/23/2017	<<1	7.12	12.9	286	-51
MW-10B						
	4/28/2015	3	7.58	10.9	544	
	7/29/2015	4	7.78	15.3	573	
	6/7/2016	2	7.42	11.2	598	50
	7/24/2017	3	7.33	11.2	455	-23
	10/23/2017	1	6.97	10.6	445	-37
MW-11						
	4/28/2015	4	7.26	11.9	370	
	7/29/2015	4	7.61	12.8	347	
	6/7/2016	-	8.21	12.2	383	60
	7/24/2017	4	7.58	13.8	370	-21
	10/23/2017	4	7.62	10.6	338	-18

Table 5: Hydraulic Conductivity Measurements

Jim and Cindy's Bar
Jump River, Wisconsin
Meridian No. 05F781

Well	Hydraulic Conductivity (K)(cm/sec)	Soils at screen
MW-9A	* 2.8×10^{-5}	sand
MW-9B	7.4×10^{-7}	clay
MW-10A	* fast recovery	sand/gravel
MW-10B	6.87×10^{-5}	sand

* conductivity too fast to measure with slug test

Table 6: Summary of Soil Vapor Sampling
Jim and Cindy's Bar
Jump River, Wisconsin
Meridian No. 05F781

Boring	Date	LEL	Oxygen	PID	Benzene	Ethylbenzene	MTBE	Toluene	1,2,4-TMB	1,3,5-TMB	m&p-Xylene	o-Xylene
Units			%		ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Vapor Risk Screening Levels**					120	370	3700	170000	240	---	3300	3300
Vapor Pin												
	4/27/2016	4	16.5	5	1.9	3	<.47	8	12.3	2.8	16.2	4.9
	6/17/2016	0	20.2	0	4.6	3.1	<.47	19.5	5.9	1.5	12.7	4.1
Crawl Space												
	4/27/2016	0	20.9	0	1.7	2.2	<.49	10.6	8.3	3	10.2	3.1
	6/17/2016	0	20.9	0	<.2	<.71	<.51	0.91	5.9	1.5	1.7	1.2

* depth to ground water = 15 ft (typical)
** Vapor Risk Screening Levels based on December 2015 US EPA Regional Screening Level Tables. Residential - Sub-slab Vapor VRSL used.

FIGURES

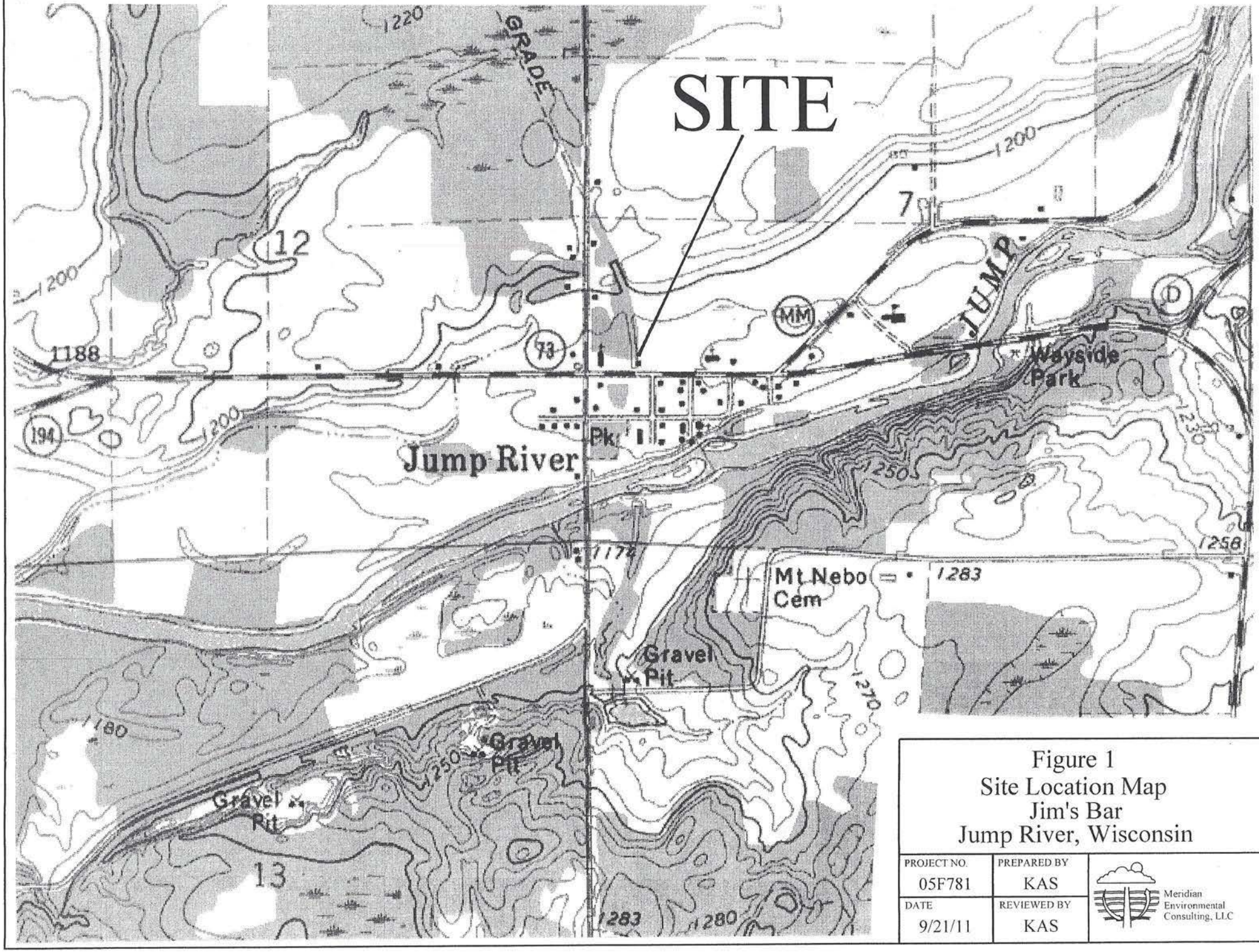


Figure 1
Site Location Map
Jim's Bar
Jump River, Wisconsin

PROJECT NO.	PREPARED BY
05F781	KAS
DATE	REVIEWED BY
9/21/11	KAS

Meridian Environmental Consulting, LLC

FIGURE 2
SITE VICINITY MAP

Figure 3
Private Wells
Jim & Cindy's Bar
Jump River, WI

PROJECT NO.	PREPARED BY
05F781	KAS
DATE	REVIEWED BY
6/28/17	KAS

Meridian Environmental Consulting, LLC

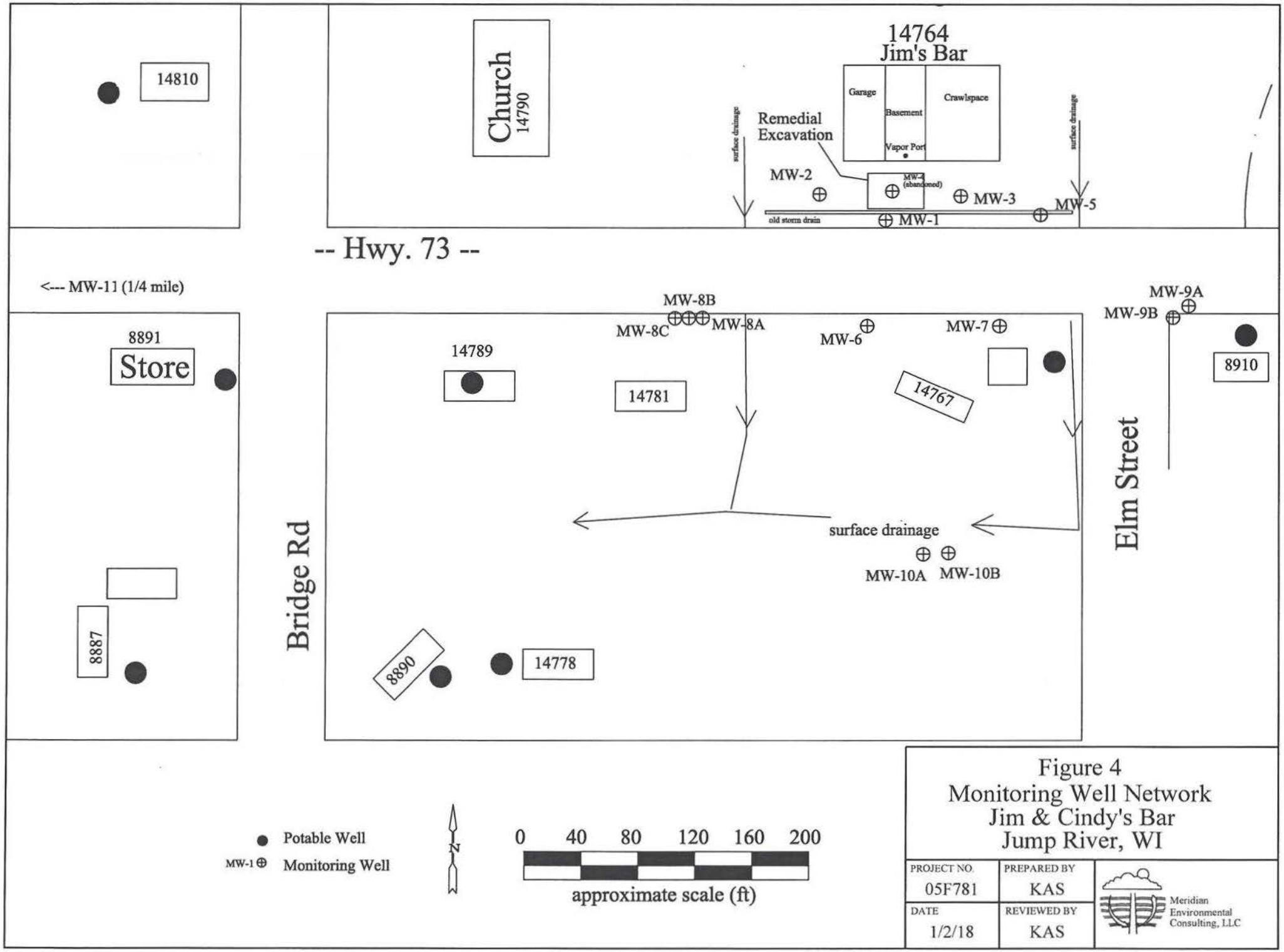


Figure 4
Monitoring Well Network
Jim & Cindy's Bar
Jump River, WI

PROJECT NO.	PREPARED BY
05F781	KAS
DATE	REVIEWED BY
1/2/18	KAS

Meridian Environmental Consulting, LLC

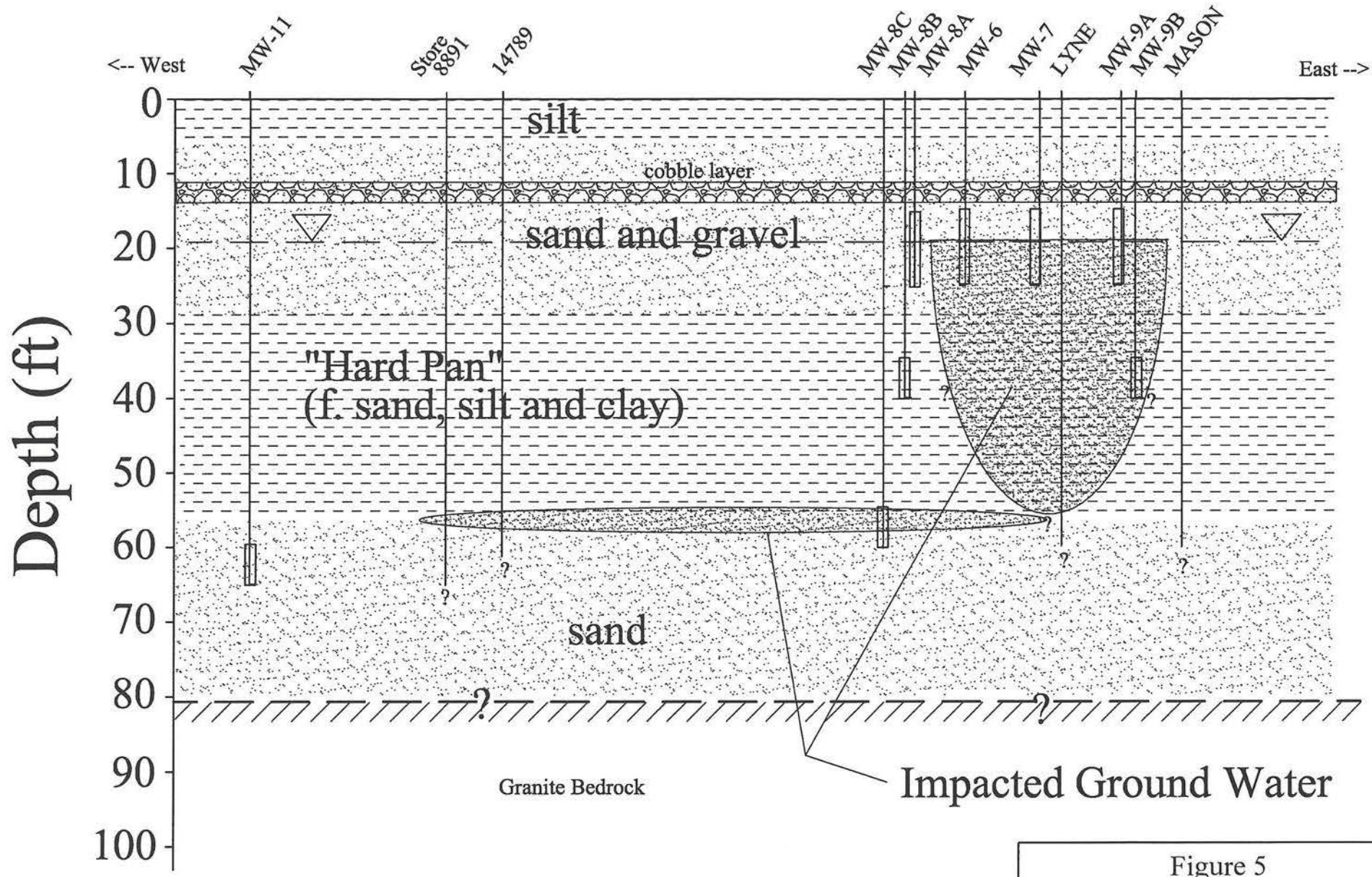


Figure 5
Cross-Section (East-West Hwy73)
Jim & Cindy's Bar
Gilman, WI

PROJECT NO.	PREPARED BY
05F781	KAS
DATE	REVIEWED BY
1/4/18	KAS

Meridian Environmental Consulting, LLC

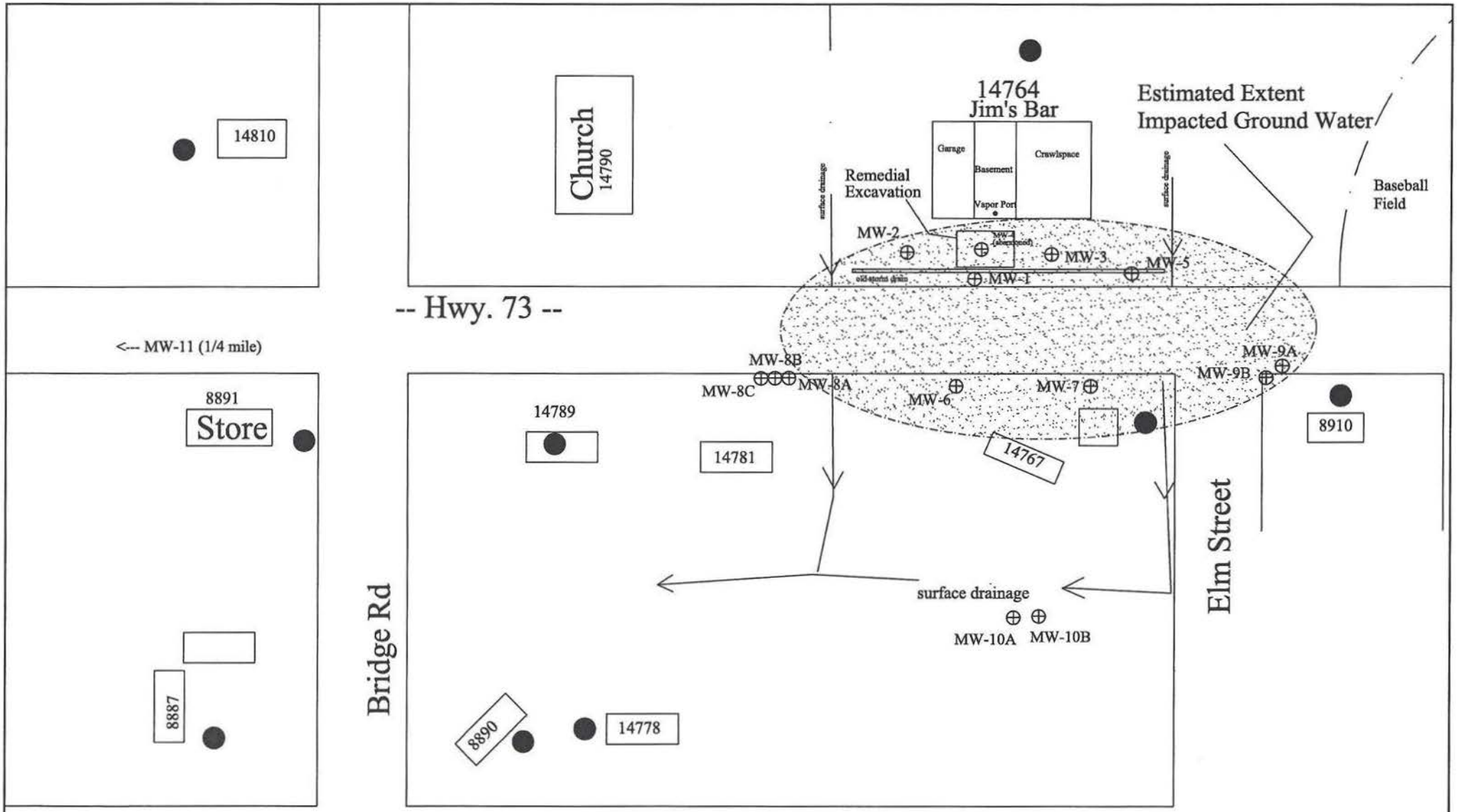


Figure 6
Ground Water Contamination
Jim & Cindy's Bar
Jump River, WI

PROJECT NO.	PREPARED BY
05F781	KAS
DATE	REVIEWED BY
1/2/18	KAS

Meridian Environmental Consulting, LLC

APPENDIX A

MW-8C Forms

State of Wisconsin
Department of Natural Resources

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

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

Page 1 of 2

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Jim's Bar		MW-8C

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Joe Last Name: Black Firm: PSI	7/10/2017	7/10/2017	HSA

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

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

Facility ID	County	County Code	Civil Town/City/ or Village
	Taylor		Jump River

Sample 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	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
		see attached ↑		Blacktop										
				brown silt w/ clay over coarse sand w/ gravel						D				
			10	rocky, brown coarse sand & gravel. cobbles. difficult drilling						D				
				brown coarse sand w/ gravel & rock fragments						wet				
			20	brown coarse sandy gravel						wet				
		↓		blowup inside augers, unable to sample			2-inch PVC							
			30	brown sandy clayey silt.						wet				
			40	brown clayey silt w/ sand						wet				

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

Signature _____ Firm Meridian Environmental Consulting, 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.

MW-8C

Sample: Number and Type	Sample: Length Att. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plasticity Index	Soil Properties: P 200	RQD/ Comments
		— see driller log —	50	brown silty clay w/ sand			2" PVC →			wet				
			60	brown well-sorted sand (coarse) (split spoon took 1 blow)						wet				
				EOB = 60 ft.										

ENVIROMENTAL FEILD BORING/WELL LOG

PSI Information To Build On
Engineering • Consulting • Testing

PROJECT: [illegible] CLIENT: _____ DATE: 7/14

LOCATION: _____

CREW CHIEF: [illegible]

BORING NO. SC CW153 HELPER: [illegible]

SAMPLE NO.	DEPTH FROM	DEPTH TO	SAMPLING DATA PENETRATION 6	12	18	24	REC	PID	ODOR	ANALY	DESCRIPTION MATERIAL DRILLED THROUGH
											SURFACE MATERIAL:
											Asphalt
	5	7	3	11	26	26					Brown City Sand
	10	12	19	43	22	24					Sand with Rock fragments
	15	17	18	24	19	20					↓
	20	22	5	14	7	8					Sandy Gravel & Wet
NA	25	27	[illegible]								↓
	30	32	3	3		Driv 12"					Wet Grey Clay
NA	35	37	[illegible]								
	40	42	3	2	3	4					
NA	45	47	[illegible]								
	50	52	3	2	4	5					
	55	57	1	1	1	1					brown sand
	60	62									

WATER ENCOUNTERED:

WHILE DRILLING: _____ FT.

UPON COMPLETION: _____ FT.

_____ HOURS: _____ FT.

CAVED DEPTH: _____ FT.

CAVED DEPTH: _____ FT.

SURFACE PATCH:

_____ SOIL

_____ CONCRETE

_____ ASPHALT

_____ OTHER: _____

BACKFILL MATERIAL:

BENTONITE CHIPS: _____ BAGS

COMMENTS

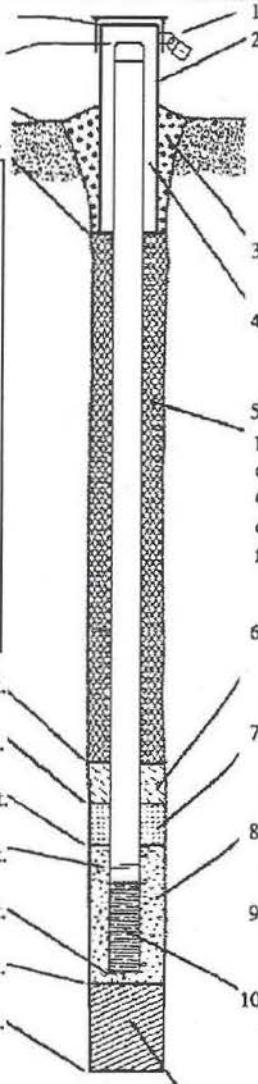
State of Wisconsin
Department of Natural Resources

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

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Jim's Bar	Local Grid Location of Well: _____ ft. ☐N. ☐S. _____ ft. ☐E. ☐W.	Well Name: MW-8C
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No. / DNR Well ID No.
Facility ID	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed: 7/10/2017 (m m d d y y y y)
Type of Well: Well Code ____/____	Section Location of Waste/Source: ____1/4 of ____ 1/4 of Sec. ____, T. ____ N, R. ____ ☐E ☐W	Well Installed By: Name (first, last) and Firm: Joe Blank / PSI
Distance from Waste/Source ____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number



A. Protective pipe, top elevation ____2____ ft. MSL
B. Well casing, top elevation ____-.5____ ft. MSL
C. Land surface elevation ____0____ ft. MSL
D. Surface seal, bottom ____ ft. MSL or ____2____ ft.

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

13. Sieve analysis performed? ☐ Yes ☑ No

14. Drilling method used: Rotary ☐ 50 / Hollow Stem Auger ☑ 41 / Other ☐ ____

15. Drilling fluid used: Water ☐ 02 / Air ☐ 01 / Drilling Mud ☐ 03 / None ☑ 99

16. Drilling additives used? ☐ Yes ☑ No

Describe _____

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

E. Bentonite seal, top ____ ft. MSL or ____47____ ft.
F. Fine sand, top ____ ft. MSL or ____48____ ft.
G. Filter pack, top ____ ft. MSL or ____50____ ft.
H. Screen joint, top ____ ft. MSL or ____55____ ft.
I. Well bottom ____ ft. MSL or ____60____ ft.
J. Filter pack, bottom ____ ft. MSL or ____60____ ft.
K. Borehole, bottom ____ ft. MSL or ____60____ ft.
L. Borehole, diameter ____8____ in.
M. O.D. well casing ____2____ in.
N. I.D. well casing ____2____ in.

1. Cap and lock? ☑ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: ____8____ in.
b. Length: ____1____ ft.
c. Material: Steel ☑ 04 / Other ☐ ____
d. Additional protection? ☐ Yes ☑ No
If yes, describe: _____
3. Surface seal: Bentonite ☐ 30 / Concrete ☑ 01 / Other ☐ ____
4. Material between well casing and protective pipe: Bentonite ☑ 30 / Other ☐ ____
5. Annular space seal: a. Granular/Chipped Bentonite ☐ 33
b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. ____ Lbs/gal mud weight . . . . . Bentonite slurry ☑ 31
d. ____ % Bentonite . . . . . Bentonite-cement grout ☐ 50
e. ____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01 / Tremie pumped ☑ 02 / Gravity ☐ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐1/4 in. ☑3/8 in. ☐1/2 in. Bentonite chips ☑ 32
c. _____ Other ☐ ____
7. Fine sand material: Manufacturer, product name & mesh size
a. _____
b. Volume added _____ ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. _____
b. Volume added _____ ft^3
9. Well casing: Flush threaded PVC schedule 40 ☑ 23 / Flush threaded PVC schedule 80 ☐ 24 / Other ☐ ____
10. Screen material: PVC
a. Screen type: Factory cut ☑ 11 / Continuous slot ☐ 01 / Other ☐ ____
b. Manufacturer _____
c. Slot size: 0.____1____ in.
d. Slotted length: ____5____ ft.
11. Backfill material (below filter pack): None ☑ 14 / Other ☐ ____

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

Signature: _____ Firm: Meridian 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.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

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

Facility/Project Name	County Name	Well Name
Jim's Bar	Taylor	MW-8C

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

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

2. Well development method

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

3. Time spent developing well 60 min.

4. Depth of well (from top of well casing) 60.__ ft.

5. Inside diameter of well 2.__ in.

6. Volume of water in filter pack and well casing ~7.__ gal.

7. Volume of water removed from well 25.__ 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)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 18.43 ft.	18.47 ft.
Date	b. 7/19/2017 (m m d d y y y y)	7/19/2017 (m m d d y y y y)
Time	c. __:__ ☐ a.m. ☐ p.m.	__:__ ☐ a.m. ☐ p.m.
12. Sediment in well bottom	___.__ inches	___.__ inches
13. Water clarity	Clear ☑ 10 Turbid ☐ 15	Clear ☐ 20 Turbid ☐ 25
	(Describe)	(Describe) Cloudy

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

14. Total suspended solids	____.__ mg/l	____.__ mg/l
15. COD	____.__ mg/l	____.__ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Ken Last Name: Shimko
Firm: Meridian Environmental Consultancy, LL

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: Ken Last Name: Shimko
Facility/Firm: Meridian Environmental Consultancy
Street: 2711 N. Elcor Rd
City/State/Zip: Fall Creek WI 54742

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: _____
Print Name: Kenneth Shimko
Firm: Meridian Environmental Consultancy, LLC

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

APPENDIX B

Laboratory Analytical Reports

Pace Analytical®
www.pacelabs.com

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

October 30, 2017

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

RE: Project: JUMP RIVER
Pace Project No.: 40159387

Dear Kenneth Shimko:
Enclosed are the analytical results for sample(s) received by the laboratory on October 25, 2017. 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

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

CERTIFICATIONS

Project: JUMP RIVER
Pace Project No.: 40159387

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

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

SAMPLE SUMMARY

Project: JUMP RIVER
Pace Project No.: 40159387

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40159387001	MW-1	Water	10/23/17 00:00	10/25/17 11:05
40159387002	MW-2	Water	10/23/17 00:00	10/25/17 11:05
40159387003	MW-3	Water	10/23/17 00:00	10/25/17 11:05
40159387004	MW-5	Water	10/23/17 00:00	10/25/17 11:05
40159387005	MW-6	Water	10/23/17 00:00	10/25/17 11:05
40159387006	MW-7	Water	10/23/17 00:00	10/25/17 11:05
40159387007	MW-8A	Water	10/23/17 00:00	10/25/17 11:05
40159387008	MW-8B	Water	10/23/17 00:00	10/25/17 11:05
40159387009	MW-8C	Water	10/23/17 00:00	10/25/17 11:05
40159387010	MW-9A	Water	10/23/17 00:00	10/25/17 11:05
40159387011	MW-9B	Water	10/23/17 00:00	10/25/17 11:05
40159387012	MW-10A	Water	10/23/17 00:00	10/25/17 11:05
40159387013	MW-10B	Water	10/23/17 00:00	10/25/17 11:05
40159387014	MW-11	Water	10/23/17 00:00	10/25/17 11:05
40159387015	14789	Water	10/23/17 00:00	10/25/17 11:05
40159387016	BAR	Water	10/23/17 00:00	10/25/17 11:05
40159387017	STORE INSIDE	Water	10/23/17 00:00	10/25/17 11:05
40159387018	STORE OUTSIDE	Water	10/23/17 00:00	10/25/17 11:05
40159387019	8897 BIRCH	Water	10/23/17 00:00	10/25/17 11:05
40159387020	8910 ELM	Water	10/23/17 00:00	10/25/17 11:05
40159387021	8890 BRIDGE	Water	10/23/17 00:00	10/25/17 11:05
40159387022	8887 BRIDGE	Water	10/23/17 00:00	10/25/17 11:05
40159387023	COM CTR	Water	10/23/17 00:00	10/25/17 11:05
40159387024	TB	Water	10/23/17 00:00	10/25/17 11:05

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SAMPLE ANALYTE COUNT

Project: JUMP RIVER
Pace Project No.: 40159387

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40159387001	MW-1	WI MOD GRO	ALD	9	PASI-G
40159387002	MW-2	WI MOD GRO	ALD	9	PASI-G
40159387003	MW-3	WI MOD GRO	ALD	9	PASI-G
40159387004	MW-5	WI MOD GRO	ALD	9	PASI-G
40159387005	MW-6	WI MOD GRO	ALD	9	PASI-G
40159387006	MW-7	WI MOD GRO	ALD	9	PASI-G
40159387007	MW-8A	WI MOD GRO	ALD	9	PASI-G
40159387008	MW-8B	WI MOD GRO	ALD	9	PASI-G
40159387009	MW-8C	WI MOD GRO	ALD	9	PASI-G
40159387010	MW-9A	WI MOD GRO	ALD	9	PASI-G
40159387011	MW-9B	WI MOD GRO	ALD	9	PASI-G
40159387012	MW-10A	WI MOD GRO	ALD	9	PASI-G
40159387013	MW-10B	WI MOD GRO	ALD	9	PASI-G
40159387014	MW-11	WI MOD GRO	ALD	9	PASI-G
40159387015	14789	WI MOD GRO	ALD	9	PASI-G
40159387016	BAR	WI MOD GRO	ALD	9	PASI-G
40159387017	STORE INSIDE	WI MOD GRO	ALD	9	PASI-G
40159387018	STORE OUTSIDE	WI MOD GRO	ALD	9	PASI-G
40159387019	8897 BIRCH	WI MOD GRO	ALD	9	PASI-G
40159387020	8910 ELM	WI MOD GRO	ALD	9	PASI-G
40159387021	8890 BRIDGE	WI MOD GRO	ALD	9	PASI-G
40159387022	8887 BRIDGE	WI MOD GRO	ALD	9	PASI-G
40159387023	COM CTR	WI MOD GRO	ALD	9	PASI-G
40159387024	TB	WI MOD GRO	ALD	9	PASI-G

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PROJECT NARRATIVE

Project: JUMP RIVER
Pace Project No.: 40159387

Method: **WI MOD GRO**
Description: WIGRO GCV
Client: Meridian Environmental Consulting, LLC
Date: October 30, 2017

General Information:
24 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:

Analyte Comments:

QC Batch: 271928

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- MW-7 (Lab ID: 40159387006)
  - a,a,a-Trifluorotoluene (S)

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

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

ANALYTICAL RESULTS

Project: JUMP RIVER
Pace Project No.: 40159387

Sample: MW-1 **Lab ID: 40159387001** Collected: 10/23/17 00:00 Received: 10/25/17 11:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**252**	ug/L	40.0	15.8	40		10/26/17 19:10	71-43-2	
Ethylbenzene	**1110**	ug/L	40.0	15.7	40		10/26/17 19:10	100-41-4	
Methyl-tert-butyl ether	**<19.4**	ug/L	40.0	19.4	40		10/26/17 19:10	1634-04-4	
Naphthalene	**297**	ug/L	40.0	17.0	40		10/26/17 19:10	91-20-3	
Toluene	**2030**	ug/L	40.0	15.5	40		10/26/17 19:10	108-88-3	
1,2,4-Trimethylbenzene	**1490**	ug/L	40.0	16.7	40		10/26/17 19:10	95-63-6	
1,3,5-Trimethylbenzene	**433**	ug/L	40.0	16.6	40		10/26/17 19:10	108-67-8	
Xylene (Total)	**3560**	ug/L	120	49.9	40		10/26/17 19:10	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	103	%	80-120		40		10/26/17 19:10	98-08-8	

Sample: MW-2 **Lab ID: 40159387002** Collected: 10/23/17 00:00 Received: 10/25/17 11:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**36.5**	ug/L	5.0	2.0	5		10/26/17 21:20	71-43-2	
Ethylbenzene	**167**	ug/L	5.0	2.0	5		10/26/17 21:20	100-41-4	
Methyl-tert-butyl ether	**11.8**	ug/L	5.0	2.4	5		10/26/17 21:20	1634-04-4	
Naphthalene	**61.4**	ug/L	5.0	2.1	5		10/26/17 21:20	91-20-3	
Toluene	**118**	ug/L	5.0	1.9	5		10/26/17 21:20	108-88-3	
1,2,4-Trimethylbenzene	**355**	ug/L	5.0	2.1	5		10/26/17 21:20	95-63-6	
1,3,5-Trimethylbenzene	**130**	ug/L	5.0	2.1	5		10/26/17 21:20	108-67-8	
Xylene (Total)	**304**	ug/L	15.0	6.2	5		10/26/17 21:20	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	105	%	80-120		5		10/26/17 21:20	98-08-8	

Sample: MW-3 **Lab ID: 40159387003** Collected: 10/23/17 00:00 Received: 10/25/17 11:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**209**	ug/L	40.0	15.8	40		10/26/17 19:36	71-43-2	
Ethylbenzene	**1260**	ug/L	40.0	15.7	40		10/26/17 19:36	100-41-4	
Methyl-tert-butyl ether	**<19.4**	ug/L	40.0	19.4	40		10/26/17 19:36	1634-04-4	
Naphthalene	**464**	ug/L	40.0	17.0	40		10/26/17 19:36	91-20-3	
Toluene	**3140**	ug/L	40.0	15.5	40		10/26/17 19:36	108-88-3	
1,2,4-Trimethylbenzene	**2990**	ug/L	40.0	16.7	40		10/26/17 19:36	95-63-6	
1,3,5-Trimethylbenzene	**925**	ug/L	40.0	16.6	40		10/26/17 19:36	108-67-8	
Xylene (Total)	**6860**	ug/L	120	49.9	40		10/26/17 19:36	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	103	%	80-120		40		10/26/17 19:36	98-08-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: JUMP RIVER
Pace Project No.: 40159387

Sample: MW-5 **Lab ID: 40159387004** Collected: 10/23/17 00:00 Received: 10/25/17 11:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**169**	ug/L	20.0	7.9	20		10/26/17 20:02	71-43-2	
Ethylbenzene	**1020**	ug/L	20.0	7.9	20		10/26/17 20:02	100-41-4	
Methyl-tert-butyl ether	**<9.7**	ug/L	20.0	9.7	20		10/26/17 20:02	1634-04-4	
Naphthalene	**536**	ug/L	20.0	8.5	20		10/26/17 20:02	91-20-3	
Toluene	**1260**	ug/L	20.0	7.8	20		10/26/17 20:02	108-88-3	
1,2,4-Trimethylbenzene	**2800**	ug/L	20.0	8.4	20		10/26/17 20:02	95-63-6	
1,3,5-Trimethylbenzene	**897**	ug/L	20.0	8.3	20		10/26/17 20:02	108-67-8	
Xylene (Total)	**3210**	ug/L	60.0	24.9	20		10/26/17 20:02	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	101	%	80-120		20		10/26/17 20:02	98-08-8	

Sample: MW-6 **Lab ID: 40159387005** Collected: 10/23/17 00:00 Received: 10/25/17 11:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**53.2**	ug/L	20.0	7.9	20		10/26/17 20:28	71-43-2	
Ethylbenzene	**848**	ug/L	20.0	7.9	20		10/26/17 20:28	100-41-4	
Methyl-tert-butyl ether	**12.0J**	ug/L	20.0	9.7	20		10/26/17 20:28	1634-04-4	
Naphthalene	**305**	ug/L	20.0	8.5	20		10/26/17 20:28	91-20-3	
Toluene	**1370**	ug/L	20.0	7.8	20		10/26/17 20:28	108-88-3	
1,2,4-Trimethylbenzene	**1830**	ug/L	20.0	8.4	20		10/26/17 20:28	95-63-6	
1,3,5-Trimethylbenzene	**635**	ug/L	20.0	8.3	20		10/26/17 20:28	108-67-8	
Xylene (Total)	**3530**	ug/L	60.0	24.9	20		10/26/17 20:28	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	99	%	80-120		20		10/26/17 20:28	98-08-8	

Sample: MW-7 **Lab ID: 40159387006** Collected: 10/23/17 00:00 Received: 10/25/17 11:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**6.5**	ug/L	5.0	2.0	5		10/26/17 20:54	71-43-2	
Ethylbenzene	**125**	ug/L	5.0	2.0	5		10/26/17 20:54	100-41-4	
Methyl-tert-butyl ether	**3.6J**	ug/L	5.0	2.4	5		10/26/17 20:54	1634-04-4	
Naphthalene	**48.5**	ug/L	5.0	2.1	5		10/26/17 20:54	91-20-3	
Toluene	**20.9**	ug/L	5.0	1.9	5		10/26/17 20:54	108-88-3	
1,2,4-Trimethylbenzene	**175**	ug/L	5.0	2.1	5		10/26/17 20:54	95-63-6	
1,3,5-Trimethylbenzene	**48.3**	ug/L	5.0	2.1	5		10/26/17 20:54	108-67-8	
Xylene (Total)	**173**	ug/L	15.0	6.2	5		10/26/17 20:54	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	107	%	80-120		5		10/26/17 20:54	98-08-8	D3

REPORT OF LABORATORY ANALYSIS

Pace Analytical
www.pacelabs.com

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

ANALYTICAL RESULTS

Project: JUMP RIVER
Pace Project No.: 40159387

Sample: MW-8A **Lab ID: 40159387007** Collected: 10/23/17 00:00 Received: 10/25/17 11:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		10/26/17 11:49	71-43-2	
Ethylbenzene	**0.43J**	ug/L	1.0	0.39	1		10/26/17 11:49	100-41-4	
Methyl-tert-butyl ether	**0.85J**	ug/L	1.0	0.48	1		10/26/17 11:49	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 11:49	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		10/26/17 11:49	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 11:49	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 11:49	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		10/26/17 11:49	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	110	%	80-120		1		10/26/17 11:49	98-08-8	

Sample: MW-8B **Lab ID: 40159387008** Collected: 10/23/17 00:00 Received: 10/25/17 11:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		10/26/17 12:15	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		10/26/17 12:15	100-41-4	
Methyl-tert-butyl ether	**<0.48**	ug/L	1.0	0.48	1		10/26/17 12:15	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 12:15	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		10/26/17 12:15	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 12:15	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 12:15	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		10/26/17 12:15	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	101	%	80-120		1		10/26/17 12:15	98-08-8	

Sample: MW-8C **Lab ID: 40159387009** Collected: 10/23/17 00:00 Received: 10/25/17 11:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		10/26/17 12:41	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		10/26/17 12:41	100-41-4	
Methyl-tert-butyl ether	**0.68J**	ug/L	1.0	0.48	1		10/26/17 12:41	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 12:41	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		10/26/17 12:41	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 12:41	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 12:41	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		10/26/17 12:41	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	101	%	80-120		1		10/26/17 12:41	98-08-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JUMP RIVER
Pace Project No.: 40159387

Sample: MW-9A **Lab ID: 40159387010** Collected: 10/23/17 00:00 Received: 10/25/17 11:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**9.9**	ug/L	1.0	0.40	1		10/26/17 14:25	71-43-2	
Ethylbenzene	**43.8**	ug/L	1.0	0.39	1		10/26/17 14:25	100-41-4	
Methyl-tert-butyl ether	**0.63J**	ug/L	1.0	0.48	1		10/26/17 14:25	1634-04-4	
Naphthalene	**12.6**	ug/L	1.0	0.42	1		10/26/17 14:25	91-20-3	
Toluene	**10.7**	ug/L	1.0	0.39	1		10/26/17 14:25	108-88-3	
1,2,4-Trimethylbenzene	**9.6**	ug/L	1.0	0.42	1		10/26/17 14:25	95-63-6	
1,3,5-Trimethylbenzene	**0.64J**	ug/L	1.0	0.42	1		10/26/17 14:25	108-67-8	
Xylene (Total)	**18.8**	ug/L	3.0	1.2	1		10/26/17 14:25	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	104	%	80-120		1		10/26/17 14:25	98-08-8	

Sample: MW-9B **Lab ID: 40159387011** Collected: 10/23/17 00:00 Received: 10/25/17 11:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**83.0**	ug/L	4.0	1.6	4		10/26/17 21:46	71-43-2	
Ethylbenzene	**545**	ug/L	4.0	1.6	4		10/26/17 21:46	100-41-4	
Methyl-tert-butyl ether	**3.9J**	ug/L	4.0	1.9	4		10/26/17 21:46	1634-04-4	
Naphthalene	**127**	ug/L	4.0	1.7	4		10/26/17 21:46	91-20-3	
Toluene	**251**	ug/L	4.0	1.6	4		10/26/17 21:46	108-88-3	
1,2,4-Trimethylbenzene	**172**	ug/L	4.0	1.7	4		10/26/17 21:46	95-63-6	
1,3,5-Trimethylbenzene	**102**	ug/L	4.0	1.7	4		10/26/17 21:46	108-67-8	
Xylene (Total)	**587**	ug/L	12.0	5.0	4		10/26/17 21:46	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	105	%	80-120		4		10/26/17 21:46	98-08-8	

Sample: MW-10A **Lab ID: 40159387012** Collected: 10/23/17 00:00 Received: 10/25/17 11:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		10/26/17 13:07	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		10/26/17 13:07	100-41-4	
Methyl-tert-butyl ether	**<0.48**	ug/L	1.0	0.48	1		10/26/17 13:07	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 13:07	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		10/26/17 13:07	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 13:07	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 13:07	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		10/26/17 13:07	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	99	%	80-120		1		10/26/17 13:07	98-08-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JUMP RIVER
Pace Project No.: 40159387

Sample: MW-10B **Lab ID: 40159387013** Collected: 10/23/17 00:00 Received: 10/25/17 11:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		10/26/17 13:24	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		10/26/17 13:24	100-41-4	
Methyl-tert-butyl ether	**<0.48**	ug/L	1.0	0.48	1		10/26/17 13:24	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 13:24	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		10/26/17 13:24	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 13:24	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 13:24	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		10/26/17 13:24	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1		10/26/17 13:24	98-08-8	

Sample: MW-11 **Lab ID: 40159387014** Collected: 10/23/17 00:00 Received: 10/25/17 11:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		10/26/17 13:50	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		10/26/17 13:50	100-41-4	
Methyl-tert-butyl ether	**<0.48**	ug/L	1.0	0.48	1		10/26/17 13:50	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 13:50	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		10/26/17 13:50	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 13:50	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 13:50	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		10/26/17 13:50	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1		10/26/17 13:50	98-08-8	

Sample: 14789 **Lab ID: 40159387015** Collected: 10/23/17 00:00 Received: 10/25/17 11:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**4.0**	ug/L	1.0	0.40	1		10/26/17 14:15	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		10/26/17 14:15	100-41-4	
Methyl-tert-butyl ether	**1.1**	ug/L	1.0	0.48	1		10/26/17 14:15	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 14:15	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		10/26/17 14:15	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 14:15	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 14:15	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		10/26/17 14:15	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1		10/26/17 14:15	98-08-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JUMP RIVER
Pace Project No.: 40159387

Sample: BAR **Lab ID: 40159387016** Collected: 10/23/17 00:00 Received: 10/25/17 11:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		10/26/17 14:41	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		10/26/17 14:41	100-41-4	
Methyl-tert-butyl ether	**<0.48**	ug/L	1.0	0.48	1		10/26/17 14:41	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 14:41	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		10/26/17 14:41	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 14:41	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 14:41	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		10/26/17 14:41	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	101	%	80-120		1		10/26/17 14:41	98-08-8	

Sample: STORE INSIDE **Lab ID: 40159387017** Collected: 10/23/17 00:00 Received: 10/25/17 11:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		10/26/17 15:07	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		10/26/17 15:07	100-41-4	
Methyl-tert-butyl ether	**<0.48**	ug/L	1.0	0.48	1		10/26/17 15:07	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 15:07	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		10/26/17 15:07	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 15:07	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 15:07	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		10/26/17 15:07	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1		10/26/17 15:07	98-08-8	

Sample: STORE OUTSIDE **Lab ID: 40159387018** Collected: 10/23/17 00:00 Received: 10/25/17 11:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		10/26/17 15:32	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		10/26/17 15:32	100-41-4	
Methyl-tert-butyl ether	**0.86J**	ug/L	1.0	0.48	1		10/26/17 15:32	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 15:32	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		10/26/17 15:32	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 15:32	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 15:32	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		10/26/17 15:32	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1		10/26/17 15:32	98-08-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JUMP RIVER
Pace Project No.: 40159387

Sample: 8897 BIRCH **Lab ID: 40159387019** Collected: 10/23/17 00:00 Received: 10/25/17 11:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		10/26/17 15:58	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		10/26/17 15:58	100-41-4	
Methyl-tert-butyl ether	**<0.48**	ug/L	1.0	0.48	1		10/26/17 15:58	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 15:58	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		10/26/17 15:58	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 15:58	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 15:58	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		10/26/17 15:58	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1		10/26/17 15:58	98-08-8	

Sample: 8910 ELM **Lab ID: 40159387020** Collected: 10/23/17 00:00 Received: 10/25/17 11:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		10/26/17 16:23	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		10/26/17 16:23	100-41-4	
Methyl-tert-butyl ether	**<0.48**	ug/L	1.0	0.48	1		10/26/17 16:23	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 16:23	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		10/26/17 16:23	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 16:23	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 16:23	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		10/26/17 16:23	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1		10/26/17 16:23	98-08-8	

Sample: 8890 BRIDGE **Lab ID: 40159387021** Collected: 10/23/17 00:00 Received: 10/25/17 11:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		10/26/17 16:49	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		10/26/17 16:49	100-41-4	
Methyl-tert-butyl ether	**0.76J**	ug/L	1.0	0.48	1		10/26/17 16:49	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 16:49	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		10/26/17 16:49	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 16:49	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 16:49	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		10/26/17 16:49	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	99	%	80-120		1		10/26/17 16:49	98-08-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JUMP RIVER
Pace Project No.: 40159387

Sample: 8887 BRIDGE **Lab ID: 40159387022** Collected: 10/23/17 00:00 Received: 10/25/17 11:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		10/27/17 09:28	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		10/27/17 09:28	100-41-4	
Methyl-tert-butyl ether	**<0.48**	ug/L	1.0	0.48	1		10/27/17 09:28	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		10/27/17 09:28	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		10/27/17 09:28	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/27/17 09:28	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/27/17 09:28	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		10/27/17 09:28	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1		10/27/17 09:28	98-08-8	

Sample: COM CTR **Lab ID: 40159387023** Collected: 10/23/17 00:00 Received: 10/25/17 11:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		10/27/17 09:54	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		10/27/17 09:54	100-41-4	
Methyl-tert-butyl ether	**<0.48**	ug/L	1.0	0.48	1		10/27/17 09:54	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		10/27/17 09:54	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		10/27/17 09:54	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/27/17 09:54	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/27/17 09:54	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		10/27/17 09:54	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1		10/27/17 09:54	98-08-8	

Sample: TB **Lab ID: 40159387024** Collected: 10/23/17 00:00 Received: 10/25/17 11:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		10/26/17 17:15	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		10/26/17 17:15	100-41-4	
Methyl-tert-butyl ether	**<0.48**	ug/L	1.0	0.48	1		10/26/17 17:15	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 17:15	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		10/26/17 17:15	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 17:15	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		10/26/17 17:15	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		10/26/17 17:15	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1		10/26/17 17:15	98-08-8	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: JUMP RIVER
Pace Project No.: 40159387

QC Batch: 271928 Analysis Method: WI MOD GRO
QC Batch Method: WI MOD GRO Analysis Description: WIGRO GCV Water
Associated Lab Samples: 40159387001, 40159387002, 40159387003, 40159387004, 40159387005, 40159387006, 40159387007, 40159387008, 40159387009, 40159387010, 40159387011, 40159387012

METHOD BLANK: 1599078 Matrix: Water
Associated Lab Samples: 40159387001, 40159387002, 40159387003, 40159387004, 40159387005, 40159387006, 40159387007, 40159387008, 40159387009, 40159387010, 40159387011, 40159387012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.42	1.0	10/26/17 09:13	
1,3,5-Trimethylbenzene	ug/L	<0.42	1.0	10/26/17 09:13	
Benzene	ug/L	<0.40	1.0	10/26/17 09:13	
Ethylbenzene	ug/L	<0.39	1.0	10/26/17 09:13	
Methyl-tert-butyl ether	ug/L	<0.48	1.0	10/26/17 09:13	
Naphthalene	ug/L	<0.42	1.0	10/26/17 09:13	
Toluene	ug/L	<0.39	1.0	10/26/17 09:13	
Xylene (Total)	ug/L	<1.2	3.0	10/26/17 09:13	
a,a,a-Trifluorotoluene (S)	%	102	80-120	10/26/17 09:13	

LABORATORY CONTROL SAMPLE & LCSD: 1599079 1599080

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	21.3	21.0	106	105	80-120	2	20	
1,3,5-Trimethylbenzene	ug/L	20	20.5	20.2	103	101	80-120	2	20	
Benzene	ug/L	20	20.4	20.0	102	100	80-120	2	20	
Ethylbenzene	ug/L	20	20.7	20.2	103	101	80-120	2	20	
Methyl-tert-butyl ether	ug/L	20	20.8	20.1	104	101	80-120	3	20	
Naphthalene	ug/L	20	20.3	20.0	101	100	80-120	1	20	
Toluene	ug/L	20	20.4	19.9	102	100	80-120	2	20	
Xylene (Total)	ug/L	60	61.4	60.0	102	100	80-120	2	20	
a,a,a-Trifluorotoluene (S)	%				102	101	80-120			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1599373 1599374

Parameter	Units	40159378006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2,4-Trimethylbenzene	ug/L	89.5	500	500	615	613	105	105	11-200	0	20	
1,3,5-Trimethylbenzene	ug/L	13.5J	500	500	526	527	102	103	54-142	0	20	
Benzene	ug/L	2060	500	500	2690	2540	127	96	66-140	6	20	
Ethylbenzene	ug/L	99.9	500	500	616	613	103	103	66-143	1	20	
Methyl-tert-butyl ether	ug/L	<12.1	500	500	487	520	97	104	70-129	6	20	
Naphthalene	ug/L	47.2	500	500	536	565	98	103	64-129	5	20	
Toluene	ug/L	128	500	500	637	632	102	101	76-130	1	20	
Xylene (Total)	ug/L	426	1500	1500	1950	1940	102	101	60-140	1	20	
a,a,a-Trifluorotoluene (S)	%						101	101	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

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

QUALITY CONTROL DATA

Project: JUMP RIVER
Pace Project No.: 40159387

QC Batch: 271929 Analysis Method: WI MOD GRO
QC Batch Method: WI MOD GRO Analysis Description: WIGRO GCV Water
Associated Lab Samples: 40159387013, 40159387014, 40159387015, 40159387016, 40159387017, 40159387018, 40159387019, 40159387020, 40159387021, 40159387022, 40159387023, 40159387024

METHOD BLANK: 1599081 Matrix: Water
Associated Lab Samples: 40159387013, 40159387014, 40159387015, 40159387016, 40159387017, 40159387018, 40159387019, 40159387020, 40159387021, 40159387022, 40159387023, 40159387024

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.42	1.0	10/26/17 11:42	
1,3,5-Trimethylbenzene	ug/L	<0.42	1.0	10/26/17 11:42	
Benzene	ug/L	<0.40	1.0	10/26/17 11:42	
Ethylbenzene	ug/L	<0.39	1.0	10/26/17 11:42	
Methyl-tert-butyl ether	ug/L	<0.48	1.0	10/26/17 11:42	
Naphthalene	ug/L	<0.42	1.0	10/26/17 11:42	
Toluene	ug/L	<0.39	1.0	10/26/17 11:42	
Xylene (Total)	ug/L	<1.2	3.0	10/26/17 11:42	
a,a,a-Trifluorotoluene (S)	%	100	80-120	10/26/17 11:42	

LABORATORY CONTROL SAMPLE & LCSD: 1599082 1599083

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	21.4	21.4	107	107	80-120	0	20	
1,3,5-Trimethylbenzene	ug/L	20	20.7	20.7	104	103	80-120	0	20	
Benzene	ug/L	20	20.9	20.8	105	104	80-120	0	20	
Ethylbenzene	ug/L	20	20.8	20.7	104	104	80-120	0	20	
Methyl-tert-butyl ether	ug/L	20	21.3	21.3	107	106	80-120	0	20	
Naphthalene	ug/L	20	21.8	22.3	109	112	80-120	2	20	
Toluene	ug/L	20	20.9	20.6	104	103	80-120	1	20	
Xylene (Total)	ug/L	60	62.5	62.3	104	104	80-120	0	20	
a,a,a-Trifluorotoluene (S)	%				101	101	80-120			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1599375 1599376

Parameter	Units	40159392006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2,4-Trimethylbenzene	ug/L	252	100	100	401	410	149	158	11-200	2	20	
1,3,5-Trimethylbenzene	ug/L	76.3	100	100	198	203	122	126	54-142	2	20	
Benzene	ug/L	26.7	100	100	126	129	99	102	66-140	2	20	
Ethylbenzene	ug/L	202	100	100	310	314	109	112	66-143	1	20	
Methyl-tert-butyl ether	ug/L	<2.4	100	100	100	102	100	102	70-129	2	20	
Naphthalene	ug/L	32.4	100	100	140	145	108	113	64-129	3	20	
Toluene	ug/L	150	100	100	255	260	104	109	76-130	2	20	
Xylene (Total)	ug/L	756	300	300	1120	1140	122	126	60-140	1	20	MS
a,a,a-Trifluorotoluene (S)	%						102	102	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

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

QUALIFIERS

Project: JUMP RIVER
Pace Project No.: 40159387

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

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
MS	Analyte recovery in the matrix spike was outside QC limits for one or more of the constituent analytes used in the calculated result.

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JUMP RIVER
Pace Project No.: 40159387

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40159387001	MW-1	WI MOD GRO	271928		
40159387002	MW-2	WI MOD GRO	271928		
40159387003	MW-3	WI MOD GRO	271928		
40159387004	MW-5	WI MOD GRO	271928		
40159387005	MW-6	WI MOD GRO	271928		
40159387006	MW-7	WI MOD GRO	271928		
40159387007	MW-8A	WI MOD GRO	271928		
40159387008	MW-8B	WI MOD GRO	271928		
40159387009	MW-8C	WI MOD GRO	271928		
40159387010	MW-9A	WI MOD GRO	271928		
40159387011	MW-9B	WI MOD GRO	271928		
40159387012	MW-10A	WI MOD GRO	271928		
40159387013	MW-10B	WI MOD GRO	271929		
40159387014	MW-11	WI MOD GRO	271929		
40159387015	14789	WI MOD GRO	271929		
40159387016	BAR	WI MOD GRO	271929		
40159387017	STORE INSIDE	WI MOD GRO	271929		
40159387018	STORE OUTSIDE	WI MOD GRO	271929		
40159387019	8897 BIRCH	WI MOD GRO	271929		
40159387020	8910 ELM	WI MOD GRO	271929		
40159387021	8890 BRIDGE	WI MOD GRO	271929		
40159387022	8887 BRIDGE	WI MOD GRO	271929		
40159387023	COM CTR	WI MOD GRO	271929		
40159387024	TB	WI MOD GRO	271929		

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

CHAIN OF CUSTODY

40159387

(Please Print Clearly)	
Company Name:	Meridian Res Grp
Branch/Location:	
Project Contact:	Ken Shinko
Phone:	715-832-6608
Project Number:	
Project Name:	Jump River
Project State:	WI
Sampled By (Print):	Ken Shinko
Sampled By (Sign):	
PO #:	Regulatory Program:

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

Quote #:	
Mail To Contact:	Ken Shinko
Mail To Company:	Meridian Res Grp
Mail To Address:	2711 N. Elcor Ln Fall Creek WI 54742
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

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

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

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

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PVOC + Naph	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	MW-1	10/23		GW			X		3-40mlvB	
002	-2									
003	-3									
004	-5									
005	-6									
006	-7									
007	-8A									
008	-8B									
009	-8C									
010	-9A									
011	-9B									
012	-10A									
013	-10B									

Page 1 of 2

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:
	10/24/17	Fed Ex	10/24/17
	10/25/17 1105		10/25/17 1105

PACE Project No. 40159387

Receipt Temp = R01 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal Present / Not Present

Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

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

Page 2 of 2

CHAIN OF CUSTODY

40159387

*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

(Please Print Clearly)	
Company Name:	Mendota Rucks
Branch/Location:	
Project Contact:	Ken Shimko
Phone:	715-832-6608
Project Number:	
Project Name:	Jump River
Project State:	WI
Sampled By (Print):	Ken Shimko
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	Ken Shimko
Mail To Company:	Mendota Rucks
Mail To Address:	271 N. Elco Rd Fall Creek WI
Invoice To Contact:	54742
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

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

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

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

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PVOC tPAH	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
014	MW-1	10/23		GW			X		3-40mlVB	
015	14789									
016	Bar								2-40mlVB	
017	Store Inside									
018	Store Outside									
019	8897 Birch									
020	8910 Elm									
021	8890 Bridge									
022	8887 Bridge									
023	Com Ctr									
024	(1)TB									

page 2 of 2

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:
	10/24/17	FedEx	10/24/17
FedEx	10/25/17 1105		
		Pace	10/25/17 1105

PACE Project No. 40159387

Receipt Temp = 2.0 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal Present / ~~Not Present~~ Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006) (1)TB added to coc by lab AKO 10/25/17

ORIGINAL

Sample Condition Upon Receipt

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

Pace Analytical™

Project #: **WO# : 40159387**

40159387

Client Name: Meridian

Courier: ☐ Fed Ex ☐ UPS ☐ Client ☐ Pace Other: _____

Tracking #: 788194406997

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 NA **Type of Ice:** (Wet) Blue Dry None ☐ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: /Corr: 2.0 **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp Blank Present: ☐ yes ☐ no

Person examining contents:
Date: 10/25/17
Initials: [illegible]

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

				Comments:
Chain of Custody Present:	☐Yes	☐No	☐N/A	1.
Chain of Custody Filled Out: (N/A water)	☐Yes	☐No	☐N/A	2. no times OK 10/25/17
Chain of Custody Relinquished:	☐Yes	☐No	☐N/A	3. no time OK 10/25/17
Sampler Name & Signature on COC:	☐Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☐Yes	☐No	☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes	☐No		Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes	☐No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☐No	☐N/A	7.
Sufficient Volume:	☐Yes	☐No	☐N/A	8. NO MS/MSD OK 10/25/17
Correct Containers Used:	☐Yes	☐No	☐N/A	9.
-Pace Containers Used:	☐Yes	☐No	☐N/A	
-Pace IR Containers Used:	☐Yes	☐No	☐N/A	
Containers Intact:	☐Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☐N/A	11.
Sample Labels match COC:	☐Yes	☐No	☐N/A	12. 014 ID 11 on labels, all labels ID only OK 10/25/17
-Includes date/time/ID/Analysis Matrix: W				
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☐Yes	☐No	☐N/A	13. ☐ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	☐Yes	☐No	☐N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDRO, Phenolics, OTHER:	☐Yes	☐No		Initial when completed / Lab Std #ID of preservative / Date/ Time:
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☐N/A	14.
Trip Blank Present:	☐Yes	☐No	☐N/A	15. TB added to coc by lab OK 10/25/17
Trip Blank Custody Seals Present	☐Yes	☐No	☐N/A	
Pace Trip Blank Lot # (if purchased): 380				

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** 10-25-17

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

August 01, 2017

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

RE: Project: JUMP RIVER
Pace Project No.: 40153877

Dear Kenneth Shimko:
Enclosed are the analytical results for sample(s) received by the laboratory on July 26, 2017. 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

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

CERTIFICATIONS

Project: JUMP RIVER
Pace Project No.: 40153877

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

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

SAMPLE SUMMARY

Project: JUMP RIVER
Pace Project No.: 40153877

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40153877001	MW-1	Water	07/24/17 00:00	07/26/17 09:35
40153877002	MW-2	Water	07/24/17 00:00	07/26/17 09:35
40153877003	MW-3	Water	07/24/17 00:00	07/26/17 09:35
40153877004	MW-5	Water	07/24/17 00:00	07/26/17 09:35
40153877005	MW-6	Water	07/24/17 00:00	07/26/17 09:35
40153877006	MW-7	Water	07/24/17 00:00	07/26/17 09:35
40153877007	MW-8A	Water	07/24/17 00:00	07/26/17 09:35
40153877008	MW-8B	Water	07/24/17 00:00	07/26/17 09:35
40153877009	MW-8C	Water	07/24/17 00:00	07/26/17 09:35
40153877010	MW-9A	Water	07/24/17 00:00	07/26/17 09:35
40153877011	MW-9B	Water	07/24/17 00:00	07/26/17 09:35
40153877012	MW-10A	Water	07/24/17 00:00	07/26/17 09:35
40153877013	MW-10B	Water	07/24/17 00:00	07/26/17 09:35
40153877014	8910 ELM	Water	07/24/17 00:00	07/26/17 09:35
40153877015	8887 BRIDGE	Water	07/24/17 00:00	07/26/17 09:35
40153877016	8897 BIRCH	Water	07/24/17 00:00	07/26/17 09:35
40153877017	8890 BRIDGE	Water	07/24/17 00:00	07/26/17 09:35
40153877018	14789 HWY. 73	Water	07/24/17 00:00	07/26/17 09:35
40153877019	STORE B4	Water	07/24/17 00:00	07/26/17 09:35
40153877020	STORE AFTER	Water	07/24/17 00:00	07/26/17 09:35
40153877021	JIM'S BAR	Water	07/24/17 00:00	07/26/17 09:35
40153877022	COM CTR	Water	07/24/17 00:00	07/26/17 09:35
40153877023	MW-11	Water	07/24/17 00:00	07/26/17 09:35
40153877024	TRIP BLANK	Water	07/24/17 00:00	07/26/17 09:35

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SAMPLE ANALYTE COUNT

Project: JUMP RIVER
Pace Project No.: 40153877

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40153877001	MW-1	WI MOD GRO	ALD	9	PASI-G
40153877002	MW-2	WI MOD GRO	ALD	9	PASI-G
40153877003	MW-3	WI MOD GRO	ALD	9	PASI-G
40153877004	MW-5	WI MOD GRO	ALD	9	PASI-G
40153877005	MW-6	WI MOD GRO	ALD	9	PASI-G
40153877006	MW-7	WI MOD GRO	ALD	9	PASI-G
40153877007	MW-8A	WI MOD GRO	ALD	9	PASI-G
40153877008	MW-8B	WI MOD GRO	ALD	9	PASI-G
40153877009	MW-8C	WI MOD GRO	ALD	9	PASI-G
40153877010	MW-9A	WI MOD GRO	ALD	9	PASI-G
40153877011	MW-9B	WI MOD GRO	ALD	9	PASI-G
40153877012	MW-10A	WI MOD GRO	ALD	9	PASI-G
40153877013	MW-10B	WI MOD GRO	ALD	9	PASI-G
40153877014	8910 ELM	WI MOD GRO	ALD	9	PASI-G
40153877015	8887 BRIDGE	WI MOD GRO	ALD	9	PASI-G
40153877016	8897 BIRCH	WI MOD GRO	ALD	9	PASI-G
40153877017	8890 BRIDGE	WI MOD GRO	ALD	9	PASI-G
40153877018	14789 HWY. 73	WI MOD GRO	ALD	9	PASI-G
40153877019	STORE B4	WI MOD GRO	ALD	9	PASI-G
40153877020	STORE AFTER	WI MOD GRO	ALD	9	PASI-G
40153877021	JIM'S BAR	WI MOD GRO	ALD	9	PASI-G
40153877022	COM CTR	WI MOD GRO	ALD	9	PASI-G
40153877023	MW-11	WI MOD GRO	ALD	9	PASI-G
40153877024	TRIP BLANK	WI MOD GRO	ALD	9	PASI-G

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PROJECT NARRATIVE

Project: JUMP RIVER
Pace Project No.: 40153877

Method: **WI MOD GRO**
Description: WIGRO GCV
Client: Meridian Environmental Consulting, LLC
Date: August 01, 2017

General Information:
24 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.

QC Batch: 262677

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40153877002

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

- MS (Lab ID: 1546511)
  - 1,2,4-Trimethylbenzene
  - 1,3,5-Trimethylbenzene
- MSD (Lab ID: 1546512)
  - 1,2,4-Trimethylbenzene
  - 1,3,5-Trimethylbenzene

QC Batch: 262863

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40153982001

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

- MS (Lab ID: 1547321)
  - Ethylbenzene

Additional Comments:

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

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ANALYTICAL RESULTS

Project: JUMP RIVER
Pace Project No.: 40153877

Sample: MW-1 **Lab ID: 40153877001** Collected: 07/24/17 00:00 Received: 07/26/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**617**	ug/L	50.0	19.8	50		07/28/17 12:44	71-43-2	
Ethylbenzene	**1390**	ug/L	50.0	19.6	50		07/28/17 12:44	100-41-4	
Methyl-tert-butyl ether	**<24.2**	ug/L	50.0	24.2	50		07/28/17 12:44	1634-04-4	
Naphthalene	**373**	ug/L	50.0	21.2	50		07/28/17 12:44	91-20-3	
Toluene	**5640**	ug/L	50.0	19.4	50		07/28/17 12:44	108-88-3	
1,2,4-Trimethylbenzene	**1760**	ug/L	50.0	20.9	50		07/28/17 12:44	95-63-6	
1,3,5-Trimethylbenzene	**503**	ug/L	50.0	20.8	50		07/28/17 12:44	108-67-8	
Xylene (Total)	**6010**	ug/L	150	62.4	50		07/28/17 12:44	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	103	%	80-120		50		07/28/17 12:44	98-08-8	

Sample: MW-2 **Lab ID: 40153877002** Collected: 07/24/17 00:00 Received: 07/26/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**6.7**	ug/L	5.0	2.0	5		07/28/17 13:38	71-43-2	
Ethylbenzene	**84.6**	ug/L	5.0	2.0	5		07/28/17 13:38	100-41-4	
Methyl-tert-butyl ether	**23.3**	ug/L	5.0	2.4	5		07/28/17 13:38	1634-04-4	
Naphthalene	**43.8**	ug/L	5.0	2.1	5		07/28/17 13:38	91-20-3	
Toluene	**13.8**	ug/L	5.0	1.9	5		07/28/17 13:38	108-88-3	
1,2,4-Trimethylbenzene	**275**	ug/L	5.0	2.1	5		07/28/17 13:38	95-63-6	M1
1,3,5-Trimethylbenzene	**79.6**	ug/L	5.0	2.1	5		07/28/17 13:38	108-67-8	M1
Xylene (Total)	**154**	ug/L	15.0	6.2	5		07/28/17 13:38	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	104	%	80-120		5		07/28/17 13:38	98-08-8	

Sample: MW-3 **Lab ID: 40153877003** Collected: 07/24/17 00:00 Received: 07/26/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**264**	ug/L	40.0	15.8	40		07/28/17 13:09	71-43-2	
Ethylbenzene	**1330**	ug/L	40.0	15.7	40		07/28/17 13:09	100-41-4	
Methyl-tert-butyl ether	**<19.4**	ug/L	40.0	19.4	40		07/28/17 13:09	1634-04-4	
Naphthalene	**567**	ug/L	40.0	17.0	40		07/28/17 13:09	91-20-3	
Toluene	**3380**	ug/L	40.0	15.5	40		07/28/17 13:09	108-88-3	
1,2,4-Trimethylbenzene	**3440**	ug/L	40.0	16.7	40		07/28/17 13:09	95-63-6	
1,3,5-Trimethylbenzene	**1020**	ug/L	40.0	16.6	40		07/28/17 13:09	108-67-8	
Xylene (Total)	**7790**	ug/L	120	49.9	40		07/28/17 13:09	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	100	%	80-120		40		07/28/17 13:09	98-08-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JUMP RIVER
Pace Project No.: 40153877

Sample: MW-5 **Lab ID: 40153877004** Collected: 07/24/17 00:00 Received: 07/26/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**136**	ug/L	50.0	19.8	50		07/27/17 19:30	71-43-2	
Ethylbenzene	**1550**	ug/L	50.0	19.6	50		07/27/17 19:30	100-41-4	
Methyl-tert-butyl ether	**<24.2**	ug/L	50.0	24.2	50		07/27/17 19:30	1634-04-4	
Naphthalene	**728**	ug/L	50.0	21.2	50		07/27/17 19:30	91-20-3	
Toluene	**2050**	ug/L	50.0	19.4	50		07/27/17 19:30	108-88-3	
1,2,4-Trimethylbenzene	**2930**	ug/L	50.0	20.9	50		07/27/17 19:30	95-63-6	
1,3,5-Trimethylbenzene	**856**	ug/L	50.0	20.8	50		07/27/17 19:30	108-67-8	
Xylene (Total)	**5940**	ug/L	150	62.4	50		07/27/17 19:30	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	102	%	80-120		50		07/27/17 19:30	98-08-8	

Sample: MW-6 **Lab ID: 40153877005** Collected: 07/24/17 00:00 Received: 07/26/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**8.3J**	ug/L	20.0	7.9	20		07/27/17 20:21	71-43-2	
Ethylbenzene	**334**	ug/L	20.0	7.9	20		07/27/17 20:21	100-41-4	
Methyl-tert-butyl ether	**<9.7**	ug/L	20.0	9.7	20		07/27/17 20:21	1634-04-4	
Naphthalene	**160**	ug/L	20.0	8.5	20		07/27/17 20:21	91-20-3	
Toluene	**224**	ug/L	20.0	7.8	20		07/27/17 20:21	108-88-3	
1,2,4-Trimethylbenzene	**1400**	ug/L	20.0	8.4	20		07/27/17 20:21	95-63-6	
1,3,5-Trimethylbenzene	**523**	ug/L	20.0	8.3	20		07/27/17 20:21	108-67-8	
Xylene (Total)	**1260**	ug/L	60.0	24.9	20		07/27/17 20:21	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	101	%	80-120		20		07/27/17 20:21	98-08-8	

Sample: MW-7 **Lab ID: 40153877006** Collected: 07/24/17 00:00 Received: 07/26/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**32.1**	ug/L	5.0	2.0	5		07/28/17 14:04	71-43-2	
Ethylbenzene	**238**	ug/L	5.0	2.0	5		07/28/17 14:04	100-41-4	
Methyl-tert-butyl ether	**10.2**	ug/L	5.0	2.4	5		07/28/17 14:04	1634-04-4	
Naphthalene	**103**	ug/L	5.0	2.1	5		07/28/17 14:04	91-20-3	
Toluene	**69.5**	ug/L	5.0	1.9	5		07/28/17 14:04	108-88-3	
1,2,4-Trimethylbenzene	**299**	ug/L	5.0	2.1	5		07/28/17 14:04	95-63-6	
1,3,5-Trimethylbenzene	**85.9**	ug/L	5.0	2.1	5		07/28/17 14:04	108-67-8	
Xylene (Total)	**431**	ug/L	15.0	6.2	5		07/28/17 14:04	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	106	%	80-120		5		07/28/17 14:04	98-08-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JUMP RIVER
Pace Project No.: 40153877

Sample: MW-8A **Lab ID: 40153877007** Collected: 07/24/17 00:00 Received: 07/26/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		07/27/17 16:31	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		07/27/17 16:31	100-41-4	
Methyl-tert-butyl ether	**<0.48**	ug/L	1.0	0.48	1		07/27/17 16:31	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		07/27/17 16:31	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		07/27/17 16:31	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/27/17 16:31	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/27/17 16:31	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		07/27/17 16:31	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	103	%	80-120		1		07/27/17 16:31	98-08-8	

Sample: MW-8B **Lab ID: 40153877008** Collected: 07/24/17 00:00 Received: 07/26/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		07/27/17 14:23	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		07/27/17 14:23	100-41-4	
Methyl-tert-butyl ether	**<0.48**	ug/L	1.0	0.48	1		07/27/17 14:23	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		07/27/17 14:23	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		07/27/17 14:23	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/27/17 14:23	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/27/17 14:23	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		07/27/17 14:23	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	99	%	80-120		1		07/27/17 14:23	98-08-8	

Sample: MW-8C **Lab ID: 40153877009** Collected: 07/24/17 00:00 Received: 07/26/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**3.3**	ug/L	1.0	0.40	1		07/27/17 23:19	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		07/27/17 23:19	100-41-4	
Methyl-tert-butyl ether	**1.1**	ug/L	1.0	0.48	1		07/27/17 23:19	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		07/27/17 23:19	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		07/27/17 23:19	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/27/17 23:19	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/27/17 23:19	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		07/27/17 23:19	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	99	%	80-120		1		07/27/17 23:19	98-08-8	

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ANALYTICAL RESULTS

Project: JUMP RIVER
Pace Project No.: 40153877

Sample: MW-9A **Lab ID: 40153877010** Collected: 07/24/17 00:00 Received: 07/26/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**108**	ug/L	10.0	4.0	10		07/28/17 14:29	71-43-2	
Ethylbenzene	**853**	ug/L	10.0	3.9	10		07/28/17 14:29	100-41-4	
Methyl-tert-butyl ether	**6.4J**	ug/L	10.0	4.8	10		07/28/17 14:29	1634-04-4	
Naphthalene	**289**	ug/L	10.0	4.2	10		07/28/17 14:29	91-20-3	
Toluene	**850**	ug/L	10.0	3.9	10		07/28/17 14:29	108-88-3	
1,2,4-Trimethylbenzene	**1080**	ug/L	10.0	4.2	10		07/28/17 14:29	95-63-6	
1,3,5-Trimethylbenzene	**340**	ug/L	10.0	4.2	10		07/28/17 14:29	108-67-8	
Xylene (Total)	**2150**	ug/L	30.0	12.5	10		07/28/17 14:29	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	101	%	80-120		10		07/28/17 14:29	98-08-8	

Sample: MW-9B **Lab ID: 40153877011** Collected: 07/24/17 00:00 Received: 07/26/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**36.9**	ug/L	1.0	0.40	1		07/27/17 14:48	71-43-2	
Ethylbenzene	**318**	ug/L	1.0	0.39	1		07/27/17 14:48	100-41-4	
Methyl-tert-butyl ether	**5.7**	ug/L	1.0	0.48	1		07/27/17 14:48	1634-04-4	
Naphthalene	**63.4**	ug/L	1.0	0.42	1		07/27/17 14:48	91-20-3	
Toluene	**214**	ug/L	1.0	0.39	1		07/27/17 14:48	108-88-3	
1,2,4-Trimethylbenzene	**206**	ug/L	1.0	0.42	1		07/27/17 14:48	95-63-6	
1,3,5-Trimethylbenzene	**81.1**	ug/L	1.0	0.42	1		07/27/17 14:48	108-67-8	
Xylene (Total)	**701**	ug/L	3.0	1.2	1		07/27/17 14:48	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	108	%	80-120		1		07/27/17 14:48	98-08-8	

Sample: MW-10A **Lab ID: 40153877012** Collected: 07/24/17 00:00 Received: 07/26/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		07/28/17 12:18	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		07/28/17 12:18	100-41-4	
Methyl-tert-butyl ether	**<0.48**	ug/L	1.0	0.48	1		07/28/17 12:18	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		07/28/17 12:18	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		07/28/17 12:18	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/28/17 12:18	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/28/17 12:18	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		07/28/17 12:18	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	99	%	80-120		1		07/28/17 12:18	98-08-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JUMP RIVER
Pace Project No.: 40153877

Sample: MW-10B **Lab ID: 40153877013** Collected: 07/24/17 00:00 Received: 07/26/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		07/27/17 15:40	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		07/27/17 15:40	100-41-4	
Methyl-tert-butyl ether	**<0.48**	ug/L	1.0	0.48	1		07/27/17 15:40	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		07/27/17 15:40	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		07/27/17 15:40	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/27/17 15:40	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/27/17 15:40	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		07/27/17 15:40	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	99	%	80-120		1		07/27/17 15:40	98-08-8	

Sample: 8910 ELM **Lab ID: 40153877014** Collected: 07/24/17 00:00 Received: 07/26/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		07/27/17 23:45	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		07/27/17 23:45	100-41-4	
Methyl-tert-butyl ether	**<0.48**	ug/L	1.0	0.48	1		07/27/17 23:45	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		07/27/17 23:45	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		07/27/17 23:45	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/27/17 23:45	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/27/17 23:45	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		07/27/17 23:45	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	99	%	80-120		1		07/27/17 23:45	98-08-8	

Sample: 8887 BRIDGE **Lab ID: 40153877015** Collected: 07/24/17 00:00 Received: 07/26/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		07/27/17 16:05	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		07/27/17 16:05	100-41-4	
Methyl-tert-butyl ether	**<0.48**	ug/L	1.0	0.48	1		07/27/17 16:05	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		07/27/17 16:05	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		07/27/17 16:05	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/27/17 16:05	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/27/17 16:05	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		07/27/17 16:05	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	99	%	80-120		1		07/27/17 16:05	98-08-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JUMP RIVER
Pace Project No.: 40153877

Sample: 8897 BIRCH **Lab ID: 40153877016** Collected: 07/24/17 00:00 Received: 07/26/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		07/27/17 13:57	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		07/27/17 13:57	100-41-4	
Methyl-tert-butyl ether	**<0.48**	ug/L	1.0	0.48	1		07/27/17 13:57	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		07/27/17 13:57	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		07/27/17 13:57	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/27/17 13:57	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/27/17 13:57	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		07/27/17 13:57	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1		07/27/17 13:57	98-08-8	

Sample: 8890 BRIDGE **Lab ID: 40153877017** Collected: 07/24/17 00:00 Received: 07/26/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		07/27/17 16:56	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		07/27/17 16:56	100-41-4	
Methyl-tert-butyl ether	**0.77J**	ug/L	1.0	0.48	1		07/27/17 16:56	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		07/27/17 16:56	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		07/27/17 16:56	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/27/17 16:56	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/27/17 16:56	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		07/27/17 16:56	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	99	%	80-120		1		07/27/17 16:56	98-08-8	

Sample: 14789 HWY. 73 **Lab ID: 40153877018** Collected: 07/24/17 00:00 Received: 07/26/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**35.5**	ug/L	1.0	0.40	1		07/27/17 17:22	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		07/27/17 17:22	100-41-4	
Methyl-tert-butyl ether	**1.3**	ug/L	1.0	0.48	1		07/27/17 17:22	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		07/27/17 17:22	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		07/27/17 17:22	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/27/17 17:22	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/27/17 17:22	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		07/27/17 17:22	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	98	%	80-120		1		07/27/17 17:22	98-08-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JUMP RIVER
Pace Project No.: 40153877

Sample: STORE B4 **Lab ID: 40153877019** Collected: 07/24/17 00:00 Received: 07/26/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		07/28/17 00:36	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		07/28/17 00:36	100-41-4	
Methyl-tert-butyl ether	**1.2**	ug/L	1.0	0.48	1		07/28/17 00:36	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		07/28/17 00:36	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		07/28/17 00:36	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/28/17 00:36	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/28/17 00:36	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		07/28/17 00:36	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	99	%	80-120		1		07/28/17 00:36	98-08-8	

Sample: STORE AFTER **Lab ID: 40153877020** Collected: 07/24/17 00:00 Received: 07/26/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		07/28/17 00:10	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		07/28/17 00:10	100-41-4	
Methyl-tert-butyl ether	**<0.48**	ug/L	1.0	0.48	1		07/28/17 00:10	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		07/28/17 00:10	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		07/28/17 00:10	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/28/17 00:10	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/28/17 00:10	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		07/28/17 00:10	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	99	%	80-120		1		07/28/17 00:10	98-08-8	

Sample: JIM'S BAR **Lab ID: 40153877021** Collected: 07/24/17 00:00 Received: 07/26/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		07/31/17 09:44	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		07/31/17 09:44	100-41-4	
Methyl-tert-butyl ether	**<0.48**	ug/L	1.0	0.48	1		07/31/17 09:44	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		07/31/17 09:44	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		07/31/17 09:44	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/31/17 09:44	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/31/17 09:44	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		07/31/17 09:44	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	103	%	80-120		1		07/31/17 09:44	98-08-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JUMP RIVER
Pace Project No.: 40153877

Sample: COM CTR **Lab ID: 40153877022** Collected: 07/24/17 00:00 Received: 07/26/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		07/31/17 10:10	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		07/31/17 10:10	100-41-4	
Methyl-tert-butyl ether	**<0.48**	ug/L	1.0	0.48	1		07/31/17 10:10	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		07/31/17 10:10	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		07/31/17 10:10	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/31/17 10:10	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/31/17 10:10	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		07/31/17 10:10	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	101	%	80-120		1		07/31/17 10:10	98-08-8	

Sample: MW-11 **Lab ID: 40153877023** Collected: 07/24/17 00:00 Received: 07/26/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		07/28/17 14:10	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		07/28/17 14:10	100-41-4	
Methyl-tert-butyl ether	**<0.48**	ug/L	1.0	0.48	1		07/28/17 14:10	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		07/28/17 14:10	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		07/28/17 14:10	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/28/17 14:10	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/28/17 14:10	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		07/28/17 14:10	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	103	%	80-120		1		07/28/17 14:10	98-08-8	

Sample: TRIP BLANK **Lab ID: 40153877024** Collected: 07/24/17 00:00 Received: 07/26/17 09:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		07/28/17 14:36	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		07/28/17 14:36	100-41-4	
Methyl-tert-butyl ether	**<0.48**	ug/L	1.0	0.48	1		07/28/17 14:36	1634-04-4	
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		07/28/17 14:36	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		07/28/17 14:36	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/28/17 14:36	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/28/17 14:36	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		07/28/17 14:36	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	103	%	80-120		1		07/28/17 14:36	98-08-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JUMP RIVER
Pace Project No.: 40153877

QC Batch: 262677 Analysis Method: WI MOD GRO
QC Batch Method: WI MOD GRO Analysis Description: WIGRO GCV Water
Associated Lab Samples: 40153877001, 40153877002, 40153877003, 40153877004, 40153877005, 40153877006, 40153877007, 40153877008, 40153877009, 40153877010, 40153877011, 40153877012, 40153877013, 40153877014, 40153877015, 40153877016, 40153877017, 40153877018, 40153877019, 40153877020

METHOD BLANK: 1546116 Matrix: Water
Associated Lab Samples: 40153877001, 40153877002, 40153877003, 40153877004, 40153877005, 40153877006, 40153877007, 40153877008, 40153877009, 40153877010, 40153877011, 40153877012, 40153877013, 40153877014, 40153877015, 40153877016, 40153877017, 40153877018, 40153877019, 40153877020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.42	1.0	07/27/17 12:02	
1,3,5-Trimethylbenzene	ug/L	<0.42	1.0	07/27/17 12:02	
Benzene	ug/L	<0.40	1.0	07/27/17 12:02	
Ethylbenzene	ug/L	<0.39	1.0	07/27/17 12:02	
Methyl-tert-butyl ether	ug/L	<0.48	1.0	07/27/17 12:02	
Naphthalene	ug/L	<0.42	1.0	07/27/17 12:02	
Toluene	ug/L	<0.39	1.0	07/27/17 12:02	
Xylene (Total)	ug/L	<1.2	3.0	07/27/17 12:02	
a,a,a-Trifluorotoluene (S)	%	99	80-120	07/27/17 12:02	

LABORATORY CONTROL SAMPLE & LCSD: 1546117 1546118

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	21.2	21.5	106	108	80-120	1	20	
1,3,5-Trimethylbenzene	ug/L	20	20.5	21.0	103	105	80-120	2	20	
Benzene	ug/L	20	20.6	20.7	103	104	80-120	0	20	
Ethylbenzene	ug/L	20	20.7	20.9	103	105	80-120	1	20	
Methyl-tert-butyl ether	ug/L	20	19.7	20.1	99	101	80-120	2	20	
Naphthalene	ug/L	20	19.8	20.7	99	103	80-120	4	20	
Toluene	ug/L	20	20.5	20.6	103	103	80-120	1	20	
Xylene (Total)	ug/L	60	61.6	62.4	103	104	80-120	1	20	
a,a,a-Trifluorotoluene (S)	%				99	100	80-120			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1546511 1546512

Parameter	Units	40153877002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2,4-Trimethylbenzene	ug/L	275	100	100	516	518	242	243	11-200	0	20	M1
1,3,5-Trimethylbenzene	ug/L	79.6	100	100	255	257	176	177	54-142	1	20	M1
Benzene	ug/L	6.7	100	100	97.9	99.7	91	93	66-140	2	20	
Ethylbenzene	ug/L	84.6	100	100	177	179	93	95	66-143	1	20	
Methyl-tert-butyl ether	ug/L	23.3	100	100	111	112	88	89	70-129	1	20	
Naphthalene	ug/L	43.8	100	100	136	134	92	90	64-129	2	20	
Toluene	ug/L	13.8	100	100	106	108	92	94	76-130	2	20	
Xylene (Total)	ug/L	154	300	300	450	453	99	100	60-140	1	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: JUMP RIVER
Pace Project No.: 40153877

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1546511 1546512

Parameter	Units	40153877002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
a,a,a-Trifluorotoluene (S)	%						98	97	80-120			

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: JUMP RIVER
Pace Project No.: 40153877

QC Batch: 262863 Analysis Method: WI MOD GRO
QC Batch Method: WI MOD GRO Analysis Description: WIGRO GCV Water
Associated Lab Samples: 40153877021, 40153877022, 40153877023, 40153877024

METHOD BLANK: 1547093 Matrix: Water
Associated Lab Samples: 40153877021, 40153877022, 40153877023, 40153877024

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.42	1.0	07/28/17 08:51	
1,3,5-Trimethylbenzene	ug/L	<0.42	1.0	07/28/17 08:51	
Benzene	ug/L	<0.40	1.0	07/28/17 08:51	
Ethylbenzene	ug/L	<0.39	1.0	07/28/17 08:51	
Methyl-tert-butyl ether	ug/L	<0.48	1.0	07/28/17 08:51	
Naphthalene	ug/L	<0.42	1.0	07/28/17 08:51	
Toluene	ug/L	<0.39	1.0	07/28/17 08:51	
Xylene (Total)	ug/L	<1.2	3.0	07/28/17 08:51	
a,a,a-Trifluorotoluene (S)	%	103	80-120	07/28/17 08:51	

LABORATORY CONTROL SAMPLE & LCSD: 1547094 1547095

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	21.0	21.0	105	105	80-120	0	20	
1,3,5-Trimethylbenzene	ug/L	20	20.2	20.1	101	100	80-120	1	20	
Benzene	ug/L	20	20.6	20.5	103	102	80-120	1	20	
Ethylbenzene	ug/L	20	20.4	20.2	102	101	80-120	1	20	
Methyl-tert-butyl ether	ug/L	20	20.9	20.6	105	103	80-120	2	20	
Naphthalene	ug/L	20	19.7	20.4	98	102	80-120	4	20	
Toluene	ug/L	20	20.3	20.2	102	101	80-120	1	20	
Xylene (Total)	ug/L	60	60.4	59.7	101	99	80-120	1	20	
a,a,a-Trifluorotoluene (S)	%				102	103	80-120			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1547321 1547322

Parameter	Units	40153982001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2,4-Trimethylbenzene	ug/L	1160	200	200	1290	1370	65	102	11-200	5	20	
1,3,5-Trimethylbenzene	ug/L	262	200	200	443	456	90	97	54-142	3	20	
Benzene	ug/L	6.4J	200	200	203	196	98	95	66-140	3	20	
Ethylbenzene	ug/L	1130	200	200	1200	1270	32	68	66-143	6	20	M1
Methyl-tert-butyl ether	ug/L	7.2J	200	200	199	201	96	97	70-129	1	20	
Naphthalene	ug/L	221	200	200	388	414	84	97	64-129	6	20	
Toluene	ug/L	162	200	200	336	341	87	89	76-130	1	20	
Xylene (Total)	ug/L	2920	600	600	3220	3400	49	80	60-140	6	20	MS
a,a,a-Trifluorotoluene (S)	%						103	103	80-120			

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REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: JUMP RIVER
Pace Project No.: 40153877

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

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
MS	Analyte recovery in the matrix spike was outside QC limits for one or more of the constituent analytes used in the calculated result.

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JUMP RIVER
Pace Project No.: 40153877

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40153877001	MW-1	WI MOD GRO	262677		
40153877002	MW-2	WI MOD GRO	262677		
40153877003	MW-3	WI MOD GRO	262677		
40153877004	MW-5	WI MOD GRO	262677		
40153877005	MW-6	WI MOD GRO	262677		
40153877006	MW-7	WI MOD GRO	262677		
40153877007	MW-8A	WI MOD GRO	262677		
40153877008	MW-8B	WI MOD GRO	262677		
40153877009	MW-8C	WI MOD GRO	262677		
40153877010	MW-9A	WI MOD GRO	262677		
40153877011	MW-9B	WI MOD GRO	262677		
40153877012	MW-10A	WI MOD GRO	262677		
40153877013	MW-10B	WI MOD GRO	262677		
40153877014	8910 ELM	WI MOD GRO	262677		
40153877015	8887 BRIDGE	WI MOD GRO	262677		
40153877016	8897 BIRCH	WI MOD GRO	262677		
40153877017	8890 BRIDGE	WI MOD GRO	262677		
40153877018	14789 HWY. 73	WI MOD GRO	262677		
40153877019	STORE B4	WI MOD GRO	262677		
40153877020	STORE AFTER	WI MOD GRO	262677		
40153877021	JIM'S BAR	WI MOD GRO	262863		
40153877022	COM CTR	WI MOD GRO	262863		
40153877023	MW-11	WI MOD GRO	262863		
40153877024	TRIP BLANK	WI MOD GRO	262863		

Pace Analytical®
www.pacelabs.com

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

40153877

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

(Please Print Clearly)	
Company Name:	Meridian Env Sltn
Branch/Location:	
Project Contact:	Ken Shimko
Phone:	715 832 6608
Project Number:	
Project Name:	Jump River
Project State:	WI
Sampled By (Print):	Ken Shimko
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	Ken Shimko
Mail To Company:	Meridian Env Sltn
Mail To Address:	2711 N. Hico Rd Fall Creek WI
Invoice To Contact:	54742
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

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

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

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

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PVOC + Naph	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	MW-1	7/24		GW			X		3-40ml VB	
002	-2									
003	-3									
004	-5									
005	-6									
006	-7									
007	-8A									
008	-8B									
009	-8C									
010	-9A									
011	-9B									
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

Relinquished By:	Date/Time:	Received By:	Date/Time:
Page 1		Page 2	
Fed Ex	7-26-17 0935	Susan Kluffe Paul	7-26-17 0935

PACE Project No.: 40153877
Receipt Temp = ROI °C
Sample Receipt pH OK / Adjusted
Cooler Custody Seal: Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

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

Pace Analytical®
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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

(Please Print Clearly)	
Company Name:	Meridian Env Sltn
Branch/Location:	
Project Contact:	Ken Shimko
Phone:	715 832 6608
Project Number:	
Project Name:	Jump River
Project State:	WI
Sampled By (Print):	Ken Shimko
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	Ken Shimko
Mail To Company:	Meridian Env Sltn
Mail To Address:	2711 N. Elcor Fall creek WI 54742
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

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

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

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

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

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	Analyses Requested: 1 pVOL+Naph	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
014	8910 Elm	7/24		GW	1		3-40ml VB	
015	8887 Bridge							
016	8897 Birch							
017	8890 Bridge							
018	14789 Hwy. 73							
019	Store B4							
020	Store After							
021	Jim's Bar							
022	Com Ctr							
023	MW-11	↓		↓	↓			
024	Trip Blank ①						2-40mlVB	

Pg. 2 0 2

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:
	7/25/17	Fed Ex	7/25/17
Fed Ex	7-26-17 0935	Susan Wyl Pace	7-26-17 0935

PACE Project No. 40153877
Receipt Temp = ROT °C
Sample Receipt pH OK / Adjusted
Cooler Custody Seal Present / Not Present
Intact / Not Intact

C019a(27Jun2006) ① In shipment Lab added to COC 7/26/17 SLW

Version 6.0 06/14/06

ORIGINAL

Sample Condition Upon Receipt

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

Pace Analytical™

Client Name: Meridian

Project #: WO# : 40153877

40153877

Courier: ☐ Fed Ex ☐ UPS ☐ Client ☐ Pace Other:

Tracking #: 787292945269

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

Cooler Temperature: Uncorr: /Corr: R01 Biological Tissue is Frozen: ☐ yes ☐ no

Temp Blank Present: ☐ yes ☑ no

Person examining contents:
Date: 7/26/17
Initials:

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

			Comments:
Chain of Custody Present:	☑Yes	☐No ☐N/A	1. Original and a copy 7-26-17
Chain of Custody Filled Out:	☐Yes	☑No ☐N/A	2. No collect time, No TB on COC 7-26-17
Chain of Custody Relinquished:	☐Yes	☑No ☐N/A	3. Only pg 2 of COC 7-26-17
Sampler Name & Signature on COC:	☑Yes	☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No ☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes	☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes	☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☑No ☐N/A	7.
Sufficient Volume: 7/26/17	☑Yes	☐No ☐N/A	8. No MS/MSD Volume 7-26-17
Correct Containers Used:	☑Yes	☐No ☐N/A	9.
-Pace Containers Used:	☑Yes	☐No ☐N/A	
-Pace IR Containers Used:	☐Yes	☐No ☑N/A	
Containers Intact:	☑Yes	☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No ☑N/A	11.
Sample Labels match COC:	☐Yes	☑No ☐N/A	12. No MW in all ID's. No collect date all samples 7-26-17
-Includes date/time/ID/Analysis Matrix: W			
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☐Yes	☐No ☑N/A	13. ☐ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	☐Yes	☐No ☑N/A	
exceptions: (VOA) coliform, TOC, TOX, TOH, O&G, WIDRO, Phenolics, OTHER:	☑Yes	☐No	Initial when completed / Lab Std #ID of preservative / Date/ Time:
Headspace in VOA Vials (>6mm):	☐Yes	☑No ☐N/A	14.
Trip Blank Present:	☑Yes	☐No ☐N/A	15. In shipment Lab added to COC. 7-26-17
Trip Blank Custody Seals Present	☑Yes	☐No ☐N/A	
Pace Trip Blank Lot # (if purchased): 383			

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

Person Contacted: Date/Time:

Comments/ Resolution: 018 ID 14789 STH 73 RF 7/26/17

Project Manager Review: Date: 7-27-17