



October 16, 2019

**Wisconsin Department of Natural Resources**

Attn: Ms. Carrie Stoltz  
107 Sutliff Avenue  
Rhineland, WI 54501

**Subject:**

Update Report  
Karen's Korner  
8816 County Road E  
Bennett, WI 54873  
BRRTS #03-16-544587  
PECFA #54873-8259-16

**Dear Ms. Stoltz:**

Enclosed please find a copy of the above-mentioned Update Report. This report documents the completion of the recently approved scope of services which included redeveloping and resurveying the well network and a single round of groundwater sampling. Based on current site conditions, REI is recommending that this site be directed to the case closure review process.

If you have any questions or comments, please contact our office at (715) 675-9784.

Sincerely,  
REI Engineering, Inc.

A handwritten signature in black ink that reads "David N. Larsen".

David N. Larsen P.G.  
Senior Hydrogeologist/Project Manager

CC: Ms. April Lacostik, 8816 County Road E, Bennett, WI 54873



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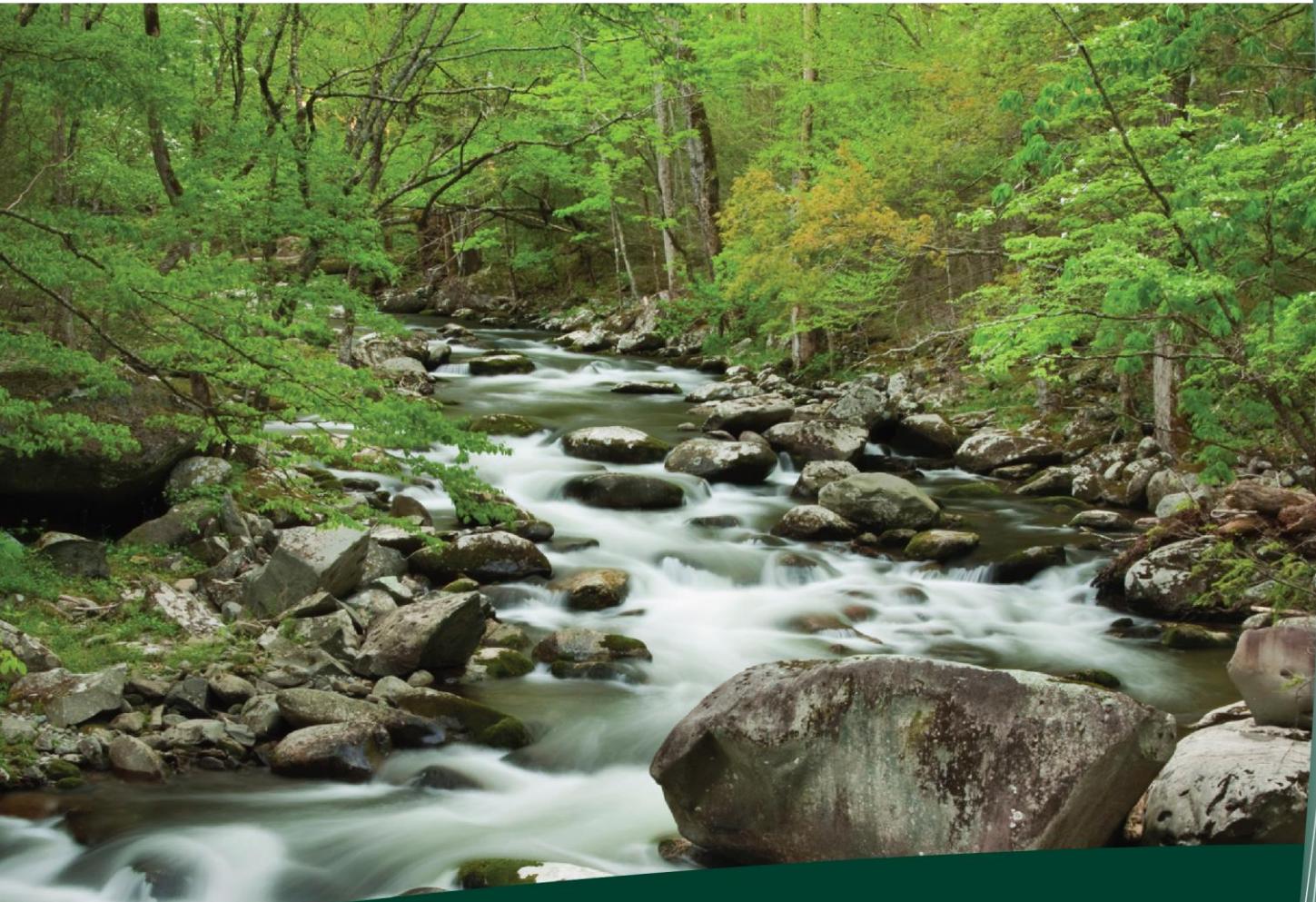
4080 N. 20th Avenue Wausau, WI 54401  
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CIVIL & ENVIRONMENTAL  
ENGINEERING, SURVEYING

UPDATE REPORT  
KAREN'S KORNER  
8816 COUNTY ROAD E  
BENNETT, WI 54873

BRRTS #03-16-544587  
PECFA #54873-8259-16  
REI PROJECT #5619



COMPREHENSIVE  
SERVICES WITH  
PRACTICAL  
SOLUTIONS



## **UPDATE REPORT**

**KAREN'S KORNER  
8816 COUNTY ROAD E  
BENNETT, WI 54873**

**BRRTS#03-16-544587  
PECFA#54873-8259-16**

**REI #5619**



### **PREPARED FOR:**

**April Lakostik  
8816 County Road E  
Bennett, WI 54873**

**OCTOBER 2019**

## **UPDATE REPORT**

**KAREN'S KORNER  
8816 COUNTY ROAD E  
BENNETT, WI 54873**

**BRRTS#03-16-544587  
PECFA#54873-8259-16**

**REI #5619**

The recommendations contained in this report are based on the information obtained from our study of the site and were arrived at in accordance with accepted hydrogeologic and engineering practices at this time and location.

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



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Hydrogeologist

October 16, 2019

Date

"I, Brian J. Bailey, hereby certify that I am a scientist as that term is defined in s. NR 712.03 (3), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."



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Environmental Scientist

October 16, 2019

Date

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## **UPDATE REPORT**

**KAREN'S KORNER  
8816 COUNTY ROAD E  
BENNETT, WI 54873**

**BRRTS#03-16-544587  
PECFA#54873-8259-16**

**REI #5619**

### **1.0 WORK PERFORMED THIS PERIOD**

REI is submitting an Update Report covering the site activities that have taken place at the above referenced location. Wisconsin Department of Natural Resources (WDNR) approved site work included sub-slab vapor sampling, redevelopment and resurvey of the existing monitoring wells, a single groundwater sampling event and report. The location of the site is shown on Figure 1. The location of the existing monitoring wells are presented in Figure 2a.

### **2.0 SITE LOCATION AND INVESTIGATION HISTORY**

The Karen's Korner property is located at 8816 County Road E in the NW  $\frac{1}{4}$  of the NW  $\frac{1}{4}$  of Section 26 Township 46 North, Range 21 West, Town of Bennett, Douglas, County, Wisconsin (Figure 1). Figures 2a-b presents the locations of the monitoring well network and site boundaries. Following the completion of the case closure submittal in 2014, the project had stalled due to non-payment of required case closure review fees. The fees were satisfied in 2019 and site work resumed.

### **3.0 SUMMARY OF WORK**

#### **3.1 Groundwater Sampling and Analytical Results**

The single approved round of groundwater sampling was completed by REI personnel on September 17, 2019. Each well was redeveloped prior to sampling. Well development forms are included in Appendix A. All development water waste generated during this scope of services was temporarily stored in 55-gallon WDOT

approved drums before final disposal at the City of Wausau waste water treatment facility.

Water elevation measurements from the REI sampling events are presented in Table 1. Groundwater samples were submitted to a state certified laboratory for analysis. Groundwater analytical results are summarized in Tables 2a-g. The laboratory analytical report is included as Appendix B.

The results from the groundwater sampling events are summarized below for each monitoring well.

**MW1:** Was not able to be sampled. Analytical results have been historically non-detect.

**MW2:** Analytical results have been historically non-detect.

**MW3:** Analytical results continue to decrease and all analytes were below threshold limits on September 17, 2019.

**MW4:** Analytical results have been below threshold limits or non-detect following the 2012 soil excavation.

**MW5:** Analytical results have been historically non-detect.

**MW6:** Analytical results have been historically non-detect.

**MW7:** Analytical results have been historically non-detect.

**PZ1:** Analytical results have been historically non-detect.

**Potable Well:** Analytical results have been historically non-detect.

### **3.2 Vapor Intrusion Screening Analysis**

Vapor intrusion screening is used to determine the potential for vapor migration from a contaminated property. Vapor intrusion of petroleum compounds most often occurs when free phase petroleum compounds are located near building foundations, where petroleum impacted groundwater has entered a building, or when petroleum contaminated groundwater is in contact with a building foundation.

Vapor intrusion from petroleum releases tend to occur near the source of the petroleum release and are often detected by smelling petroleum odors in the building. When petroleum odors are not detected, vapor intrusion concerns can be dismissed if there is more than five (5) feet of clean unsaturated and aerated (greater than 5% oxygen content) soil separating the residual contamination from the building.

An investigation into the potential for vapor migration should be completed in situations when there is not more than five (5) feet of clean unsaturated and aerated (greater than 5% oxygen content) soil separating the residual contamination from the building or any of the following conditions:

- **Free phase product that has the potential for off gassing vapors underlies a building or is within 30 feet, horizontally or vertically of a building foundation.**

Free product has never been observed on the property.

- **Petroleum contaminated soils with the potential for off gassing vapors are within 5 feet or less of a building foundation.**

No known residual soil contamination is located within five (5) feet of the building foundation.

- **Benzene concentrations in groundwater underlying a building is >1,000 ppb and there is less than 20 feet of unsaturated soil between the groundwater and the building.**

Benzene concentrations in the groundwater do not exceed 1,000 ppb.

- **Groundwater contaminated with petroleum product above Wisconsin's groundwater preventive action limit (PAL) is entering a building or in contact with a buildings foundation or is in water intercepted by the buildings foundation drainage system, including sumps.**

A sump pump is located on the property and was sampled in 2011. The results were non detect for all analyzed parameters. No known petroleum impacted groundwater is entering the building.

- **Petroleum vapors are present that may migrate from the petroleum source and move through preferential pathways (utility lines, fractured bedrock, etc.) into a building.**

Based on residual soil and groundwater contaminant concentrations, petroleum vapors are likely not present in the soils above the shallow water table.

Based on the recorded depth to groundwater, soil types and contaminants of concern, it can be concluded that the threat for vapor migration from the petroleum release at the Karen's Korner site is not a possibility and further investigation into vapor migration is not warranted. Additionally, the WDNR conducted an internal review of the vapor intrusion pathways and determined that further investigation into vapor intrusion was not necessary. A copy of the documentation is included in Appendix C.

#### **4.0 CONCLUSIONS AND RECOMMENDATIONS**

REI has determined that no additional investigative work is necessary. REI is currently recommending that this investigation be directed to the case closure review process. A lien for the case closure fees has already been placed on the property.

**Table 1**  
**Depth to Water and Water Level Elevations**  
**Karen's Korner**  
**Bennett, WI**

**Depth to Water (feet) below Reference Elevation**

Date	MW1	MW2	MW3	MW4	MW4R	MW5	MW6	MW7	PZ1	
7/23/2008	7.82	6.02	6.38	6.33					6.10	
4/29/2010	7.37	6.15	5.58	6.40					5.77	
7/25/2010	6.97	5.83	5.26	6.24					5.51	
4/28/2011	3.86	4.13	3.57	4.28					3.87	
6/7/2011						3.28	4.47			
11/14/2011	7.63	6.60	5.23	6.21		4.57	7.03	6.85	5.03	
9/13/2012	9.01	7.83	6.54	Abandoned		6.36	7.75	6.78	6.50	
9/20/2012					7.79					
5/8/2013	7.38	5.90	5.18			4.17	3.59	5.60	5.23	5.47
8/19/2013	8.26	6.66	6.04			4.81	5.93	7.51	6.47	6.13
11/13/2013	7.19	5.68	5.11			4.78	4.31	5.70	5.27	5.26
9/17/2019		4.80	4.63			2.99	3.60	4.80	4.67	4.19

**Measuring Point Elevations (top of well casing)**

Elevations provided by others

Initial Survey	98.13	96.04	94.92	96.02		95.59	94.64		94.78	
Resurvey (11-14-11)								99.83		
Resurvey (9-20-12)	103.45	101.35	100.11		101.36	99.99	101.02	99.83	100.00	
Resurvey (9-17-19)		101.52	100.21		101.42	99.96	101.17	99.98	100.00	

**Ground Surface Elevation**

Initial Survey	98.84	96.62	95.62	96.59		95.96	94.26		95.61	
Resurvey (11-14-11)								97.42		
Resurvey (9-20-12)	103.95	101.92	100.59		101.80	100.42	98.56	97.42	100.42	

**Depth to Water (feet) below Top of Casing**

Average	7.28	5.96	5.35	5.89	4.91	4.52	6.12	5.88	5.38	
Maximum	9.01	7.83	6.54	6.40	7.79	6.36	7.75	6.85	6.50	
Minimum	3.86	4.13	3.57	4.28	2.99	3.28	4.47	4.67	3.87	
Range	5.15	3.70	2.97	2.12	4.80	3.08	3.28	2.18	2.63	

**Water Level Elevation (feet MSL)**

Date	MW1	MW2	MW3	MW4	MW4R	MW5	MW6	MW7	PZ1	
7/23/2008	90.31	90.02	88.54	89.69					88.68	
4/29/2010	90.76	89.89	89.34	89.62					89.01	
7/25/2010	91.16	90.21	89.66	89.78					89.27	
4/28/2011	94.27	91.91	91.35	91.74					90.91	
6/7/2011						92.31	90.17			
11/14/2011	90.50	89.44	89.69	89.81		91.02	87.61	92.98	89.75	
9/13/2012	94.44	93.52	88.38			89.23	86.89	93.05	88.28	
9/20/2012					93.57					
5/8/2013	96.07	95.45	94.93			97.19	96.40	95.42	94.60	94.53
8/19/2013	95.19	94.69	94.07			96.55	94.06	93.51	93.36	93.87
11/13/2013	96.26	95.67	95.00			96.58	95.68	95.32	94.56	94.74
9/17/2019		96.72	95.58			98.43	96.36	96.37	95.31	95.81

**Table 2a**  
**Summary of Groundwater Analytical Results**  
**Soil Borings**  
**Karen's Korner**  
**Bennett, Wisconsin**

Sampled By -->			Icecor					
Sample Location -->			SB2	SB3	SB5	SB6	SB7	SB8
Date -->			11/6/2006	11/6/2006	11/6/2006	11/6/2006	11/6/2006	11/6/2006
	ES	PAL	Units					
<b>GRO</b>			µg/l	NS	55.1	< 50	< 50	< 50
<b>VOC Parameters</b>								
Benzene	5	0.5	µg/l	<b>103</b>	0.48*	< 0.15	< 0.15	1.18
Toluene	800	160	µg/l	743	4.72	< 0.40	< 0.40	< 0.40
Ethylbenzene	700	140	µg/l	210	1.59	< 0.10	0.11*	0.25*
Xylenes (mixed isomers)	2,000	400	µg/l	433.10	2.91*	< 0.40	< 0.40	< 0.40
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Trimethylbenzenes (mixed isomers)	480	96	µg/l	67.8	0.28*	< 0.15	< 0.15	0.15*
1,2-Dichloropropane	5	0.5	µg/l	1.97	< 0.10	< 0.10	< 0.10	< 0.10
2-Chlorotoluene			µg/l	28.80	< 0.10	< 0.10	< 0.10	< 0.10
4-Isopropyltoluene			µg/l	4.76	< 0.20	< 0.20	< 0.20	< 0.20
Butylbenzene			µg/l	7.42	< 0.20	< 0.20	< 0.20	< 0.20
Isopropylbenzene			µg/l	22.70	<b>0.12*</b>	< 0.10	< 0.10	< 0.10
Propylbenzene			µg/l	43.00	0.26*	< 0.10	< 0.10	< 0.10
sec-Butylbenzene			µg/l	2.56	< 0.15	< 0.15	< 0.15	< 0.15

Notes:

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

NA = Not Analyzed

Enforcement Standard exceeded

**BOLD**

Preventive Action Limit exceeded

*Italics*

\* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation

**Table 2b**  
**Summary of Groundwater Analytical Results**  
**MW1**  
**Karen's Korner**  
**Bennett, Wisconsin**

Sampled By -->			Icecor			REI Engineering, Inc.								
			Date -->	7/23/2008	4/29/2010	7/25/2010	4/28/2011	11/14/2011	9/13/2012	9/13/2012	5/8/2013	8/19/2013	11/13/2013	9/17/2019
	ES	PAL	Units	µg/l	< 50	NA	< 50	NA	NA	NA	NA	NA	NA	NA
<b>GRO</b>														
<b>VOC Parameters</b>														
Benzene	5	0.5	µg/l	< 0.20	< 0.20	< 0.31	< 0.39	< 0.39	<b>Soil</b>	< 0.39	< 0.39	< 0.34	< 0.34	<b>Truck</b>
Toluene	800	160	µg/l	< 0.40	< 0.40	< 0.37	< 0.42	< 0.42	<b>Excavation</b>	< 0.42	< 0.42	< 0.34	< 0.34	<b>Parked</b>
Ethylbenzene	700	140	µg/l	< 0.20	< 0.20	< 0.50	< 0.41	< 0.41	<b>Completed</b>	< 0.41	< 0.41	< 0.34	< 0.34	<b>Over</b>
Xylenes (mixed isomers)	2,000	400	µg/l	< 0.20	< 0.20	< 0.62	< 0.87	< 0.87		< 0.87	< 0.87	< 0.71	< 0.71	<b>Well</b>
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.50	< 0.50	< 0.30	< 0.38	< 0.38		< 0.38	< 0.38	< 0.37	< 0.37	
Trimethylbenzenes (mixed isomers)	480	96	µg/l	< 0.20	< 0.20	< 0.44	< 0.43	< 0.43		< 0.43	< 0.43	< 0.36	< 0.36	<b>Not</b>
Naphthalene	100	10	µg/l	< 1.0	< 1.0	NA	NA	NA		< 0.40	< 0.40	< 0.37	< 0.37	<b>Sampled</b>
Chloroform	6	0.6	µg/l	< 0.20	0.33*	NA	NA	NA		NA	NA	NA	NA	
<b>Inorganics</b>														
Nitrate+Nitrite (as N)	10	2	mg/l	0.00	0.00	0.00	NA	NA		NA	NA	NA	NA	
Sulfate	250	125	mg/l	0.70	0.00	0.50	NA	NA		NA	NA	NA	NA	
Lead (Dissolved)	15	1.5	µg/l	< 0.60	NA	NA	NA	NA		NA	NA	NA	NA	
Iron (Dissolved)	0.3	0.15	mg/l	<b>1.00</b>	<b>1.00</b>	<b>1.50</b>	NA	NA		NA	NA	NA	NA	
<b>Field Measurements</b>														
Temperature			°F	60.08	58.64	59.36	NA	NA		NA	NA	NA	NA	
Conductivity			µS/cm	512	523	551	NA	NA		NA	NA	NA	NA	
Dissolved Oxygen			mg/l	6.73	7.87	6.65	NA	NA		NA	NA	NA	NA	
pH					6.25	7.02	7.22	NA	NA		NA	NA	NA	
Redox Potential			mV	NA	NA	NA	NA	NA		NA	NA	NA	NA	

**Notes:**

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

NA = Not Analyzed

Enforcement Standard exceeded      **BOLD**

Preventive Action Limit exceeded      *Italics*

\* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation

**Table 2c**  
**Summary of Groundwater Analytical Results**  
**MW2**  
**Karen's Korner**  
**Bennett, Wisconsin**

Sampled By -->				Icecor				REI Engineering, Inc.							
				Date -->	7/23/2008	4/29/2010	7/25/2010	4/28/2011	11/14/2011	9/13/2012	9/13/2012	5/8/2013	8/19/2013	11/13/2013	9/17/2019
	ES	PAL	Units												
<b>GRO</b>			µg/l	< 50	NA	< 50	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>VOC Parameters</b>															
Benzene	5	0.5	µg/l	< 0.20	< 0.20	< 0.31	< 0.39	< 0.39	<b>Soil</b>	< 0.39	< 0.39	< 0.34	< 0.34	< 0.25	
Toluene	800	160	µg/l	< 0.40	< 0.40	< 0.37	< 0.42	< 0.42	<b>Excavation</b>	< 0.42	< 0.42	< 0.34	< 0.34	< 0.17	
Ethylbenzene	700	140	µg/l	< 0.20	< 0.20	< 0.50	< 0.41	< 0.41	<b>Completed</b>	< 0.41	< 0.41	< 0.34	< 0.34	< 0.22	
Xylenes (mixed isomers)	2,000	400	µg/l	< 0.20	< 0.20	< 0.62	< 0.87	< 0.87		< 0.87	< 0.87	< 0.71	< 0.71	< 0.47	
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.50	< 0.50	< 0.30	< 0.38	< 0.38		< 0.38	< 0.38	< 0.37	< 0.37	< 1.2	
Trimethylbenzenes (mixed isomers)	480	96	µg/l	< 0.20	< 0.20	< 0.44	< 0.43	< 0.43		< 0.43	< 0.43	< 0.36	< 0.36	< 0.87	
Naphthalene	100	10	µg/l	< 1.0	< 1.0	NA	NA	NA		< 0.40	< 0.40	< 0.37	< 0.37	< 1.2	
1,1,1-Trichloroethane	200	40	µg/l	0.49*	0.64*	NA	NA	NA		NA	NA	NA	NA	NA	
Chloromethane	3	0.3	µg/l	0.42*	< 0.40	NA	NA	NA		NA	NA	NA	NA	NA	
<b>Inorganics</b>															
Nitrate+Nitrite (as N)	10	2	mg/l	0.00	0.00	0.00	NA	NA		NA	NA	NA	NA	NA	
Sulfate	250	125	mg/l	0.20	0.10	0.00	NA	NA		NA	NA	NA	NA	NA	
Lead (Dissolved)	15	1.5	µg/l	3.20	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Iron (Dissolved)	0.3	0.15	mg/l	<b>7.00</b>	<b>6.50</b>	<b>7.00</b>	NA	NA		NA	NA	NA	NA	NA	
<b>Field Measurements</b>															
Temperature			°F	62.96	59.36	62.24	NA	NA		NA	NA	NA	NA	NA	57.6
Conductivity			µS/cm	1,355	1,211	1,723	NA	NA		NA	NA	NA	NA	NA	1,679
Dissolved Oxygen			mg/l	3.20	3.45	3.33	NA	NA		NA	NA	NA	NA	NA	0.45
pH					5.96	6.96	7.25	NA	NA		NA	NA	NA	NA	5.86
Redox Potential			mV	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	229.1

**Notes:**

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

NA = Not Analyzed

Enforcement Standard exceeded      **BOLD**

Preventive Action Limit exceeded      *Italics*

\* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation

**Table 2d**  
**Summary of Groundwater Analytical Results**  
**MW3**  
**Karen's Korner**  
**Bennett, Wisconsin**

Sampled By -->				Icecor				REI Engineering, Inc.							
				Date -->	7/23/2008	4/29/2010	7/25/2010	4/28/2011	11/14/2011	9/13/2012	9/13/2012	5/8/2013	8/19/2013	11/13/2013	9/17/2019
	ES	PAL	Units												
<b>GRO</b>			µg/l	203	NA	510	NA	NA		NA	NA	NA	NA	NA	NA
<b>VOC Parameters</b>															
Benzene	5	0.5	µg/l	<b>10.4</b>	<b>7.33</b>	<b>57</b>	<b>27.3</b>	<b>61.7</b>	<b>Soil</b>	<b>22.4</b>	<b>5.9</b>	<b>9.7</b>	<b>6.3</b>	<b>0.34*</b>	
Toluene	800	160	µg/l	1.47	< 0.40	17.3	3.4	55.5	<b>Excavation</b>	0.64	18	0.54*	1.1	0.46*	
Ethylbenzene	700	140	µg/l	13.3	1.07	38.8	25.5	112	<b>Completed</b>	10.7	21.2	3.4	18.3	5.8	
Xylenes (mixed isomers)	2,000	400	µg/l	15.87	4.67	18.66	18.1	162.1		6.70	19.70	0.85*	8.40	5.4	
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.50	< 0.50	1.85*	2.0	1.8		< 0.38	< 0.38	< 0.37	< 0.37	< 1.2	
Trimethylbenzenes (mixed isomers)	480	96	µg/l	9.38	7.2	23.03	8.9	58.3		7.8	7.16	0.42*	6.4	5.4	
Naphthalene	100	10	µg/l	< 1.0	<b>7.48</b>	NA	<b>10.1</b>	<b>29.1</b>		4.0	4.6	3.7	7.8	< 1.2	
1,1,1-Trichloroethane	200	40	µg/l	< 0.20	< 0.50	NA	NA	NA		NA	NA	NA	NA	NA	
Chloromethane	3	0.3	µg/l	<b>0.59*</b>	< 0.40	NA	NA	NA		NA	NA	NA	NA	NA	
Isopropylbenzene			µg/l	1.84	< 0.20	NA	NA	NA		NA	NA	NA	NA	NA	
<b>Inorganics</b>															
Nitrate+Nitrite (as N)	10	2	mg/l	0.00	0.00	0.00	NA	NA		NA	NA	NA	NA	NA	NA
Sulfate	250	125	mg/l	0.00	0.10	0.10	NA	NA		NA	NA	NA	NA	NA	NA
Lead (Dissolved)	15	1.5	µg/l	< 0.60	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA
Iron (Dissolved)	0.3	0.15	mg/l	<b>5.00</b>	<b>6.00</b>	<b>7.00</b>	NA	NA							
<b>Field Measurements</b>															
Temperature			°F	60.26	58.82	61.16	NA	NA		NA	NA	NA	NA	NA	61.6
Conductivity			µS/cm	1,128	1,023	1,523	NA	NA		NA	NA	NA	NA	NA	813
Dissolved Oxygen			mg/l	3.80	3.45	3.33	NA	NA		NA	NA	NA	NA	NA	0.8
pH				6.26	7.13	6.88	NA	NA		NA	NA	NA	NA	NA	6.14
Redox Potential			mV	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	218.3

**Notes:**

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

NA = Not Analyzed

Enforcement Standard exceeded      **BOLD**

Preventive Action Limit exceeded      *Italics*

\* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation

**Table 2e**  
**Summary of Groundwater Analytical Results**  
**MW4/MW4R**  
**Karen's Korner**  
**Bennett, Wisconsin**

Sample Location -->			MW4					MW4R							
Sampled By -->			Icetecor			REI		REI Engineering, Inc.							
			Date -->	7/23/2008	4/29/2010	7/25/2010	4/28/2011	11/14/2011	9/12/2012	9/13/2012	9/20/2012	5/8/2013	8/19/2013	11/13/2013	9/17/2019
	ES	PAL	Units												
<b>GRO</b>			µg/l	5,090	NA	31,100	NA	NA			NA	NA	NA	NA	
<b>VOC Parameters</b>															
Benzene	5	0.5	µg/l	107	54.1	146*	65.2	31.3	<b>MW4</b>	<b>Soil</b>	< 0.39	< 0.39	< 0.34	< 0.34	
Toluene	800	160	µg/l	612	2,330	4,010	3,160	635	<b>Abandoned</b>	<b>Excavation</b>	3.3	< 0.42	< 0.34	< 0.34	
Ethylbenzene	700	140	µg/l	382	1,850	1,740	1,820	876	<b>Completed</b>		0.48*	< 0.41	< 0.34	< 0.22	
Xylenes (mixed isomers)	2,000	400	µg/l	816	11,220	10,220	12,320	4,510			5.2	1.7*	< 0.71	< 0.71	
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 5.0	< 5.0	< 30	11.1	< 9.5			< 0.38	< 0.38	< 0.37	< 1.2	
Trimethylbenzenes (mixed isomers)	480	96	µg/l	416	6,120	3,854	4,123	1,659			0.78*	0.78*	< 0.36	< 0.87	
Naphthalene	100	10	µg/l	78.3	315	NA	400	217			0.51*	< 0.40	< 0.37	< 0.37	
1,1,1-Trichloroethane	200	40	µg/l	< 2.0	< 5.0	NA	NA	NA			NA	NA	NA	NA	
Chloromethane	3	0.3	µg/l	9.16*	< 4.0	NA	NA	NA			NA	NA	NA	NA	
Isopropylbenzene			µg/l	33.7	177	NA	NA	NA			NA	NA	NA	NA	
4-Isopropyltoluene			µg/l	5.85*	< 4.0	NA	NA	NA			NA	NA	NA	NA	
Butylbenzene			µg/l	63.5	< 4.0	NA	NA	NA			NA	NA	NA	NA	
<b>Inorganics</b>															
Nitrate+Nitrite (as N)	10	2	mg/l	0.00	0.00	0.00	NA	NA			NA	NA	NA	NA	
Sulfate	250	125	mg/l	1.00	1.10	1.20	NA	NA			NA	NA	NA	NA	
Lead (Dissolved)	15	1.5	µg/l	< 0.60	NA	NA	NA	NA			NA	NA	NA	NA	
Iron (Dissolved)	0.3	0.15	mg/l	1.50	1.50	1.50	NA	NA			NA	NA	NA	NA	
<b>Field Measurements</b>															
Temperature			°F	54.32	55.76	58.1	NA	NA			NA	NA	NA	61.6	
Conductivity			µS/cm	555.00	515	625	NA	NA			NA	NA	NA	568.1	
Dissolved Oxygen			mg/l	5.10	5.78	6.44	NA	NA			NA	NA	NA	1.68	
pH					6.52	7.44	7.05	NA	NA		NA	NA	NA	6.52	
Redox Potential			mV	NA	NA	NA	NA	NA			NA	NA	NA	203.5	

**Notes:**

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

NA = Not Analyzed

Enforcement Standard exceeded      **BOLD**

Preventive Action Limit exceeded      *Italics*

\* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation

**Table 2f**  
**Summary of Groundwater Analytical Results**  
**MW5**  
**Karen's Korner**  
**Bennett, Wisconsin**

Sampled By -->				REI Engineering, Inc.							
Date -->				6/7/2011	11/14/2011	9/13/2012	9/13/2012	5/8/2013	8/19/2013	11/13/2013	9/17/2019
<b>VOC Parameters</b>	ES	PAL	Units								
Benzene	5	0.5	µg/l	0.25*	< 0.39	<b>Soil</b>	< 0.39	< 0.39	< 0.34	< 0.34	< 0.25
Toluene	800	160	µg/l	1.8*	< 0.42	<b>Excavation</b>	< 0.42	< 0.42	< 0.34	< 0.34	< 0.17
Ethylbenzene	700	140	µg/l	0.75*	< 0.41	<b>Completed</b>	< 0.41	< 0.41	< 0.34	< 0.34	< 0.22
Xylenes (mixed isomers)	2,000	400	µg/l	2.7*	< 0.87		< 0.87	< 0.87	< 0.71	< 0.71	< 0.47
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.23	< 0.38		< 0.38	< 0.38	< 0.37	< 0.37	< 1.2
Trimethylbenzenes (mixed isomers)	480	96	µg/l	2.04*	< 0.43		< 0.43	< 0.43	< 0.36	< 0.36	< 0.87
Naphthalene	100	10	µg/l	1.3*	< 0.40		< 0.40	< 0.40	< 0.37	< 0.37	< 1.2
<b>Field Measurements</b>											
Temperature			°F	NA	NA		NA	NA	NA	NA	59.9
Conductivity			µS/cm	NA	NA		NA	NA	NA	NA	538.2
Dissolved Oxygen			mg/l	NA	NA		NA	NA	NA	NA	4.49
pH				NA	NA		NA	NA	NA	NA	6.33
Redox Potential			mV	NA	NA		NA	NA	NA	NA	215.2

**Notes:**

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

NA = Not Analyzed

Enforcement Standard exceeded

**BOLD**

Preventive Action Limit exceeded

*Italics*

\* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation

**Table 2g**  
**Summary of Groundwater Analytical Results**  
**MW6**  
**Karen's Korner**  
**Bennett, Wisconsin**

Sampled By -->				REI Engineering, Inc.							
Date -->				7/23/2008	11/14/2011	9/13/2012	9/13/2012	5/8/2013	8/19/2013	11/13/2013	9/17/2019
	ES	PAL	Units								
<b>VOC Parameters</b>											
Benzene	5	0.5	µg/l	< 0.25	< 0.39	<b>Soil</b>	< 0.39	< 0.39	< 0.34	< 0.34	< 0.25
Toluene	800	160	µg/l	1.6*	< 0.42	<b>Excavation</b>	< 0.42	< 0.42	< 0.34	< 0.34	< 0.17
Ethylbenzene	700	140	µg/l	0.82*	< 0.41	<b>Completed</b>	< 0.41	< 0.41	< 0.34	< 0.34	< 0.22
Xylenes (mixed isomers)	2,000	400	µg/l	2.8*	< 0.87		< 0.87	< 0.87	< 0.71	< 0.71	< 0.47
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.23	< 0.38		< 0.38	< 0.38	< 0.37	< 0.37	< 1.2
Trimethylbenzenes (mixed isomers)	480	96	µg/l	2.34	< 0.43		< 0.43	< 0.43	< 0.36	< 0.36	< 0.87
Naphthalene	100	10	µg/l	1.2*	< 0.40		< 0.40	< 0.40	< 0.37	< 0.37	< 1.2
<b>Field Measurements</b>											
Temperature			°F	NA	NA		NA	NA	NA	NA	58.7
Conductivity			µS/cm	NA	NA		NA	NA	NA	NA	1,852
Dissolved Oxygen			mg/l	NA	NA		NA	NA	NA	NA	2.0
pH				NA	NA		NA	NA	NA	NA	5.97
Redox Potential			mV	NA	NA		NA	NA	NA	NA	216.1

Notes:

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

NA = Not Analyzed

Enforcement Standard exceeded

**BOLD**

Preventive Action Limit exceeded

*Italics*

\* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation

**Table 2h**  
**Summary of Groundwater Analytical Results**  
**MW7**  
**Karen's Korner**  
**Bennett, Wisconsin**

Sampled By -->				REI Engineering, Inc.						
Date -->				11/14/2011	9/13/2012	9/13/2012	5/8/2013	8/19/2013	11/13/2013	9/17/2019
	ES	PAL	Units							
<b>VOC Parameters</b>										
Benzene	5	0.5	µg/l	< 0.39	<b>Soil</b>	< 0.39	< 0.39	< 0.34	< 0.34	< 0.25
Toluene	800	160	µg/l	< 0.42	<b>Excavation</b>	< 0.42	< 0.42	< 0.34	< 0.34	< 0.17
Ethylbenzene	700	140	µg/l	< 0.41	<b>Completed</b>	< 0.41	< 0.41	< 0.34	< 0.34	< 0.22
Xylenes (mixed isomers)	2,000	400	µg/l	< 0.87		< 0.87	< 0.87	< 0.71	< 0.71	< 0.47
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.38		< 0.38	< 0.38	< 0.37	< 0.37	< 1.2
Trimethylbenzenes (mixed isomers)	480	96	µg/l	< 0.43		< 0.43	< 0.43	< 0.36	< 0.36	< 0.87
Naphthalene	100	10	µg/l	< 0.40		< 0.40	< 0.40	< 0.37	< 0.37	< 1.2
<b>Field Measurements</b>										
Temperature			°F	NA	NA	NA	NA	NA	NA	57.4
Conductivity			µS/cm	NA	NA	NA	NA	NA	NA	568.1
Dissolved Oxygen			mg/l	NA	NA	NA	NA	NA	NA	1.68
pH				NA	NA	NA	NA	NA	NA	6.52
Redox Potential			mV	NA	NA	NA	NA	NA	NA	203.5

*Notes:*

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

NA = Not Analyzed

Enforcement Standard exceeded

**BOLD**

Preventive Action Limit exceeded

*Italics*

\* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation

**Table 2i**  
**Summary of Groundwater Analytical Results**  
**PZ1**  
**Karen's Korner**  
**Bennett, Wisconsin**

Sampled By -->				Icecor				REI Engineering, Inc.							
				Date -->	7/23/2008	4/29/2010	7/25/2010	4/28/2011	11/14/2011	9/13/2012	9/13/2012	5/8/2013	8/19/2013	11/13/2013	9/17/2019
	ES	PAL	Units												
<b>GRO</b>			µg/l	< 50	NA	59.9	NA	NA			NA	NA	NA	NA	NA
<b>VOC Parameters</b>										<b>Soil</b>					
Benzene	5	0.5	µg/l	< 0.20	< 0.20	< 0.31	< 0.39	< 0.39	<b>Excavation</b>	< 0.39	< 0.39	< 0.34	< 0.34	< 0.25	
Toluene	800	160	µg/l	< 0.40	< 0.40	< 0.37	< 0.42	< 0.42	<b>Completed</b>	< 0.42	< 0.42	< 0.34	< 0.34	< 0.17	
Ethylbenzene	700	140	µg/l	0.31*	< 0.20	< 0.50	< 0.41	< 0.41		< 0.41	< 0.41	< 0.71	< 0.34	< 0.22	
Xylenes (mixed isomers)	2,000	400	µg/l	0.69*	< 0.40	< 0.62	< 0.87	< 0.87		< 0.87	< 0.87	< 0.37	< 0.71	< 0.47	
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 5.0	< 5.0	< 0.30	< 0.38	< 0.38		< 0.38	< 0.38	< 0.36	< 0.37	< 1.2	
Trimethylbenzenes (mixed isomers)	480	96	µg/l	0.20*	< 0.20	< 0.44	< 0.43	< 0.43		< 0.43	< 0.43	< 0.37	< 0.36	< 0.87	
Naphthalene	100	10	µg/l	< 1.0	< 1.0	NA	< 0.40	< 0.40		< 0.40	< 0.40	< 0.37	< 0.37	< 1.2	
1,1,1-Trichloroethane	200	40	µg/l	< 2.0	< 2.0	NA	NA	NA		NA	NA	NA	NA	NA	
Chloromethane	3	0.3	µg/l	0.82*	< 0.40	NA	NA	NA		NA	NA	NA	NA	NA	
Isopropylbenzene			µg/l	< 0.10	< 0.10	NA	NA	NA		NA	NA	NA	NA	NA	
4-Isopropyltoluene			µg/l	< 0.20	< 0.20	NA	NA	NA		NA	NA	NA	NA	NA	
Butylbenzene			µg/l	< 0.40	< 0.40	NA	NA	NA		NA	NA	NA	NA	NA	
<b>Inorganics</b>															
Nitrate+Nitrite (as N)	10	2	mg/l	0.00	0.00	0.00	NA	NA		NA	NA	NA	NA	NA	
Sulfate	250	125	mg/l	0.50	0.00	0.50	NA	NA		NA	NA	NA	NA	NA	
Lead (Dissolved)	15	1.5	µg/l	< 0.60	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Iron (Dissolved)	0.3	0.15	mg/l	<b>1.00</b>	<b>1.00</b>	<b>0.50</b>	NA	NA		NA	NA	NA	NA	NA	
<b>Field Measurements</b>															
Temperature			°C	17.10	16.2	15.5	NA	NA		NA	NA	NA	NA	NA	60.9
Conductivity			µS/cm	253.00	250	278	NA	NA		NA	NA	NA	NA	NA	1,117
Dissolved Oxygen			mg/l	5.20	6.02	6.23	NA	NA		NA	NA	NA	NA	NA	6.45
pH					7.10	7.45	7.23	NA	NA		NA	NA	NA	NA	7.17
Redox Potential			mV	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	216.4

**Notes:**

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

NA = Not Analyzed

Enforcement Standard exceeded      **BOLD**

Preventive Action Limit exceeded      *Italics*

\* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation

**Table 2j**  
**Summary of Groundwater Analytical Results**  
**Sump Pump**  
**Karen's Korner**  
**Bennett, Wisconsin**

Sampled By -->			REI
Date -->			4/28/2011
	ES	PAL	Units
<b>VOC Parameters</b>			
Benzene	5	0.5	µg/l
Toluene	800	160	µg/l
Ethylbenzene	700	140	µg/l
Xylenes (mixed isomers)	2,000	400	µg/l
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l
Trimethylbenzenes (mixed isomers)	480	96	µg/l
Naphthalene	100	10	µg/l

*Notes:*

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

NA = Not Analyzed

Enforcement Standard exceeded

**BOLD**

Preventive Action Limit exceeded

*Italics*

**Table 2k**  
**Summary of Groundwater Analytical Results**  
**Potable Water Supply Well**  
**Karen's Korner**  
**Bennett, Wisconsin**

Sampled By -->			Icecor	REI Engineering, Inc.								
Date -->			11/6/2006	4/28/2011	11/14/2011	9/13/2012	9/13/2012	5/8/2013	8/19/2013	11/13/2013	9/17/2019	
GRO	ES	PAL	Units	< 50	NA	NA		NA	NS	NS	NA	NA
<b>VOC Parameters</b>												
Benzene	5	0.5	µg/l	< 0.15	< 0.038	< 0.047	<b>Soil</b>	< 0.41	NS	NS	< 0.24	< 0.12
Toluene	800	160	µg/l	< 0.40	< 0.045	< 0.065	<b>Excavation</b>	< 0.67	NS	NS	< 0.22	< 0.078
Ethylbenzene	700	140	µg/l	< 0.10	< 0.034	< 0.078	<b>Completed</b>	< 0.54	NS	NS	< 0.21	< 0.11
Xylenes (mixed isomers)	2,000	400	µg/l	< 0.40	< 0.16	< 0.27		< 1.8	NS	NS	< 0.75	< 0.30
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.10	< 0.040	< 0.048		< 0.61	NS	NS	< 0.25	< 0.17
Trimethylbenzenes (mixed isomers)	480	96	µg/l	< 0.15	< 0.050	< 0.86		< 0.97	NS	NS	< 0.54	< 0.23
Chloromethane			µg/l	0.47*	< 0.021	0.20*		< 0.24	NS	NS	< 0.50	< 0.15

*Notes:*

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

NA = Not Analyzed

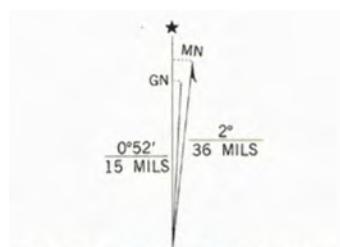
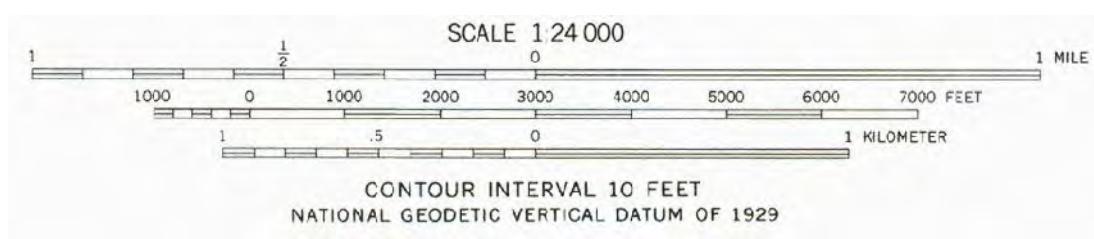
NS = Not Sampled

Enforcement Standard exceeded      **BOLD**

*Italics*

Preventive Action Limit exceeded

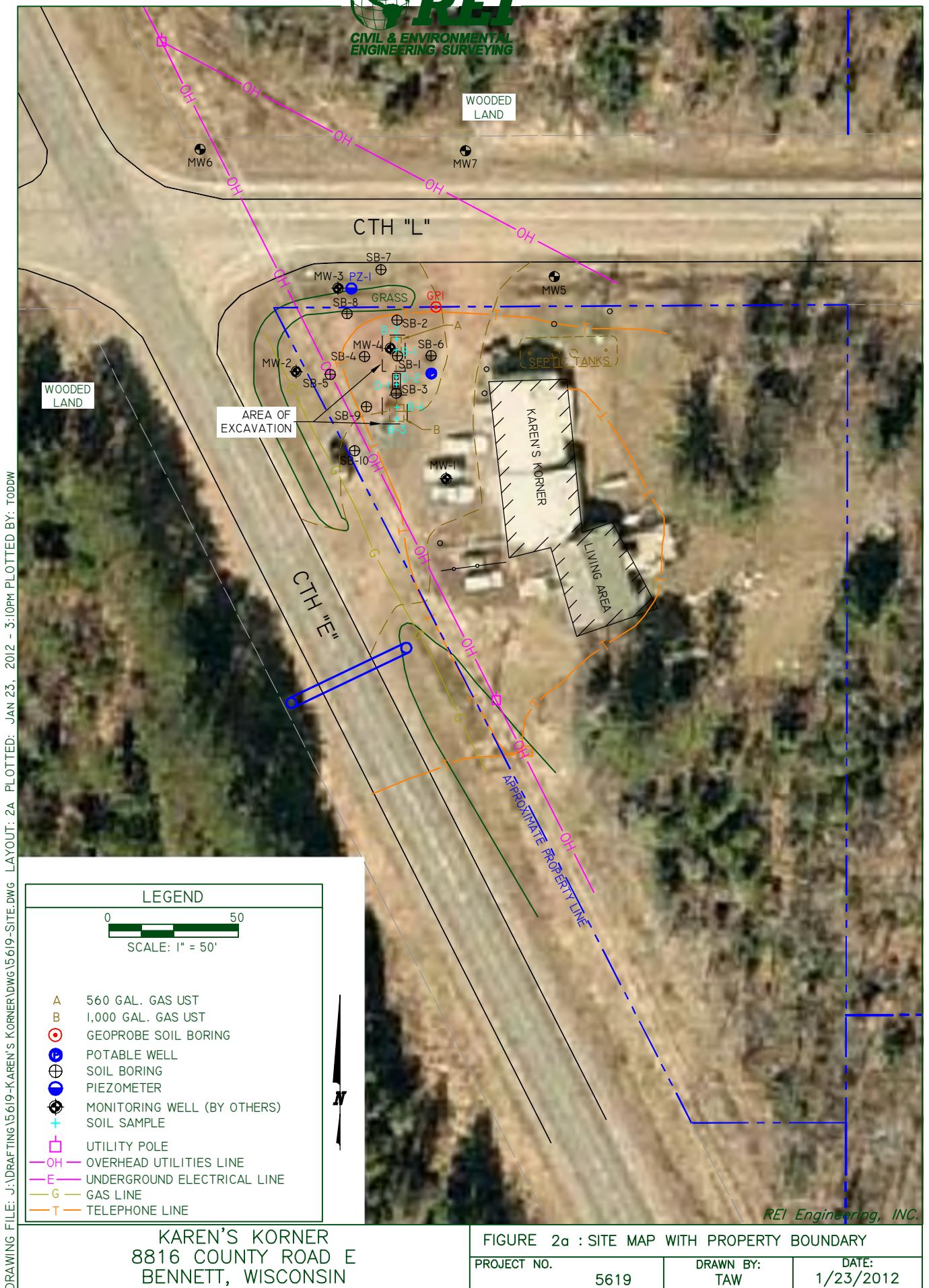
\* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation

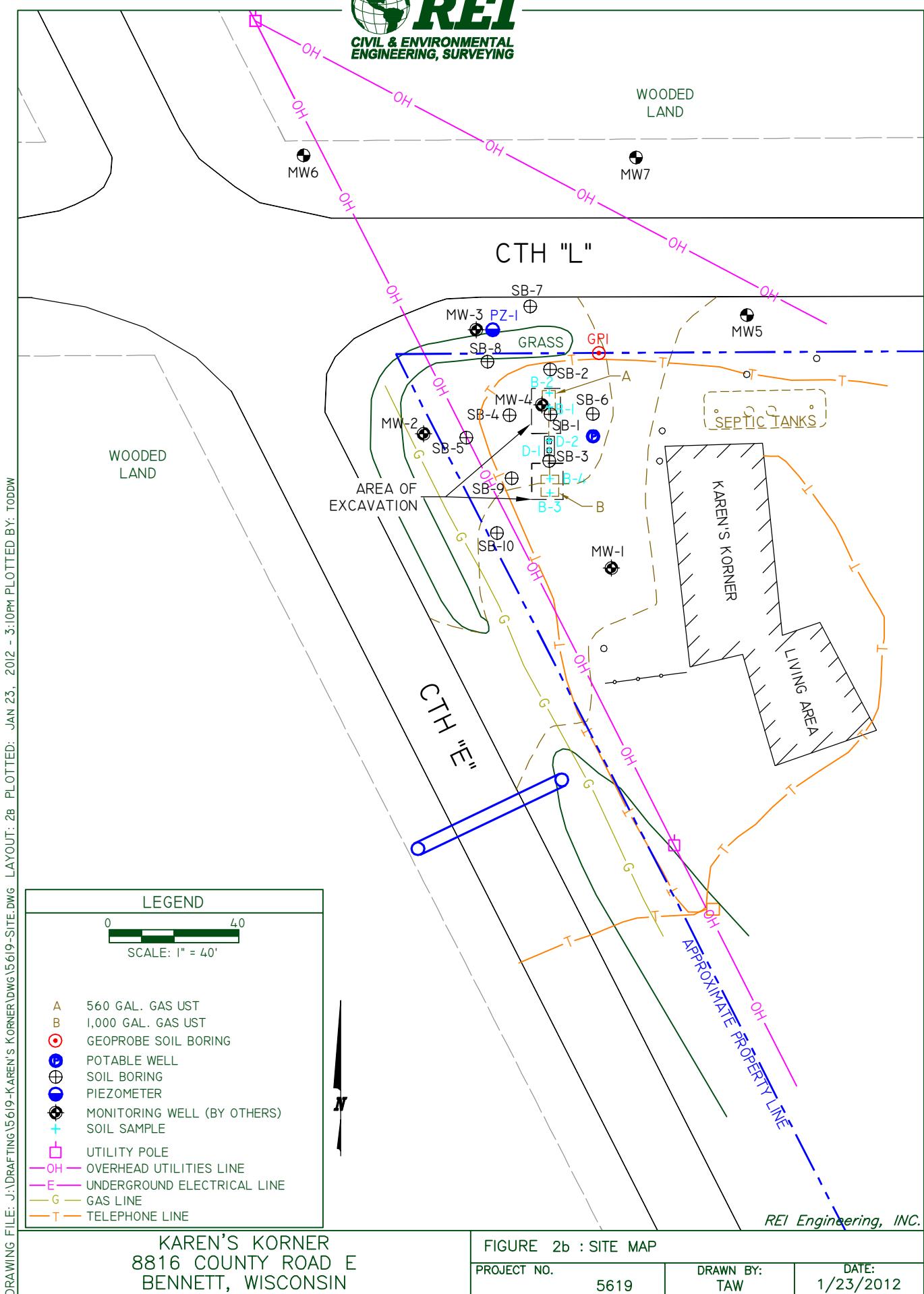


**BENNETT, WIS.**  
NE/4 SOLON SPRINGS 15' QUADRANGLE  
N4622.5-W9145/7.5

1981  
REI Engineering, INC.

KAREN'S KORNER 8816 COUNTY ROAD E BENNETT, WISCONSIN	FIGURE 1 : SITE VICINITY MAP		
	PROJECT NO.	DRAWN BY:	DATE:
	5619	TAW	5/10/2011





## **APPENDIX A**

### **WELL DEVELOPMENT FORMS**



Facility/Project Name Karen's Korner	County Name Douglas	Well Name MW2
Facility Licence, Permit or Monitoring Number	County Code 16	Wis. Unique Well Number  DNR Well Number

1. Can this well be purged dry?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Before Development		After Development	
2. Well development method		11. Depth to Water (from top of well casing)			
surged with bailer and bailed	<input type="checkbox"/> 41	a.	4.80	ft.	
surged with bailer and pumped	<input checked="" type="checkbox"/> 61	b.	9/17/19	9/17/19	
surged with block and bailed	<input type="checkbox"/> 42	mm/dd/yy			
surged with block and pumped	<input type="checkbox"/> 62	Time	c. 9:30	<input type="checkbox"/> p.m. <input checked="" type="checkbox"/> a.m.	10:00
surged with block, bailed and pumped	<input type="checkbox"/> 70				
compressed air	<input type="checkbox"/> 20				
bailed only	<input type="checkbox"/> 10				
pumped only	<input type="checkbox"/> 51				
pumped slowly	<input type="checkbox"/> 50				
Other _____	<input type="checkbox"/>				
3. Time spent developing well	30	min.	12. Sediment in well bottom	inches	0 inches
4. Depth of well (from top of Casing)		ft.	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe)	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe)
5. Inside diameter of well	2.07	in.			
6. Volume of water in filter pack and well casing		gal.			
7. Volume of water removed from well		gal.			
8. Volume of water added (If any)	0	gal.	14. Total suspended solids	mg/l	mg/l
9. Source of water added _____			15. COD	mg/l	mg/l
10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes. attach results)					

16. Additional comments on development:

Well developed by: Person's Name and Firm  Name: <u>David Larsen (REI)</u>	I hereby certify that the above Information is true and correct to the best of my knowledge.  Signature: <u>DL Larsen</u>
Firm: <u>REI Engineering, Inc.</u> 4020 N 20th Ave. Wausau, WI 54401	Print Initials: <u>DNL</u>
Firm: REI Engineering, Inc.	

NOTE: Shaded areas are for DNR use only. See instructions for more information including a list of county codes.

Facility/Project Name Karen's Korner	County Name Douglas	Well Name MW3
Facility Licence, Permit or Monitoring Number	County Code 16	Wis. Unique Well Number  DNR Well Number

1. Can this well be purged dry?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Before Development		After Development	
2. Well development method	surged with bailer and bailed <input type="checkbox"/> 41 surged with bailer and pumped <input checked="" type="checkbox"/> 61 surged with block and bailed <input type="checkbox"/> 42 surged with block and pumped <input type="checkbox"/> 62 surged with block, bailed and pumped <input type="checkbox"/> 70 compressed air <input type="checkbox"/> 20 bailed only <input type="checkbox"/> 10 pumped only <input type="checkbox"/> 51 pumped slowly <input type="checkbox"/> 50 Other _____ <input type="checkbox"/>	11. Depth to Water (from top of well casing)	a. 4.63 ft.  Data mm/dd/yy  Time c. 9:25	ft.  9/17/19  9:55	p.m.  <input type="checkbox"/> p.m.  <input checked="" type="checkbox"/> a.m.
3. Time spent developing well	30 min.	12. Sediment in well bottom	inches	0 inches	
4. Depth of well (from top of Casing)	ft.	13. Water clarity	Clear Turbid (Describe)	<input type="checkbox"/> 10 <input checked="" type="checkbox"/> 15	Clear Turbid (Describe) <input type="checkbox"/> 10 <input checked="" type="checkbox"/> 15
5. Inside diameter of well	2.07 in.	Fill in if drilling fluids were used and well is at solid waste facility:			
6. Volume of water in filter pack and well casing	gal.	14. Total suspended solids	mg/l	mg/l	
7. Volume of water removed from well	gal.	15. COD	mg/l	mg/l	
8. Volume of water added (If any)	0 gal.				
9. Source of water added _____					
10. Analysis performed on water added? (If yes, attach results)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				

16. Additional comments on development:

Well developed by: Person's Name and Firm  Name: <u>David Larsen (REI)</u>  Firm: <u>REI Engineering, Inc.</u> <u>4020 N 20th Ave.</u> <u>Wausau, WI 54401</u>	I hereby certify that the above Information is true and correct to the best of my knowledge.  Signature: <u>David Larsen</u> Print Initials: <u>DNL</u> Firm: <u>REI Engineering, Inc.</u>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

NOTE: Shaded areas are for DNR use only. See instructions for more information including a list of county codes.

State of Wisconsin

Department of Natural Resources

Route To: Solid Waste  Haz. Waste  Wastewater 

MONITORING WELL DEVELOPMENT

Form 4400-113B

Rev. 4.90

Env. Response & Repair  Underground Tanks  Other 

Facility/Project Name Karen's Korner	County Name Douglas	Well Name MW4R
Facility Licence, Permit or Monitoring Number	County Code 16	Wis. Unique Well Number  DNR Well Number

1. Can this well be purged dry?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
		Before Development	After Development
2. Well development method			
surged with bailer and bailed	<input type="checkbox"/> 41	11. Depth to Water (from top of well casing)	a. 2.99 ft.
surged with bailer and pumped	<input checked="" type="checkbox"/> 61		ft.
surged with block and bailed	<input type="checkbox"/> 42	Data mm/dd/yy	b. 9/17/19
surged with block and pumped	<input type="checkbox"/> 62	Time	<input type="checkbox"/> p.m. c. 9:55 <input checked="" type="checkbox"/> a.m.
surged with block, bailed and pumped	<input type="checkbox"/> 70		9/17/19
compressed air	<input type="checkbox"/> 20		10:25
bailed only	<input type="checkbox"/> 10		<input type="checkbox"/> p.m. <input checked="" type="checkbox"/> a.m.
pumped only	<input type="checkbox"/> 51		0 inches
pumped slowly	<input type="checkbox"/> 50		
Other _____	<input type="checkbox"/>	12. Sediment in well bottom	inches
3. Time spent developing well	30	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe)
4. Depth of well (from top of Casing)	ft.		Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe)
5. Inside diameter of well	2.07		
6. Volume of water in filter pack and well casing	gal.	Fill in if drilling fluids were used and well is at solid waste facility:	
7. Volume of water removed from well	gal.	14. Total suspended solids	mg/l
8. Volume of water added (If any)	0 gal.	15. COD	mg/l
9. Source of water added _____			
10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)			

## 16. Additional comments on development:

Well developed by: Person's Name and Firm  Name: <u>David Larsen (REI)</u>	I hereby certify that the above Information is true and correct to the best of my knowledge.  Signature: <u>DL</u> Print Initials: <u>D L</u> Firm: <u>REI Engineering, Inc.</u>
Firm: <u>REI Engineering, Inc.</u> 4020 N 20th Ave. Wausau, WI 54401	

NOTE: Shaded areas are for DNR use only. See instructions for more information including a list of county codes.

Facility/Project Name Karen's Korner	County Name Douglas	Well Name MW5
Facility Licence, Permit or Monitoring Number	County Code 16	Wis. Unique Well Number  DNR Well Number

1. Can this well be purged dry?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
		Before Development	After Development
2. Well development method			
surged with bailer and bailed	<input type="checkbox"/> 41	11. Depth to Water (from top of well casing)	a. 3.60 ft.
surged with bailer and pumped	<input checked="" type="checkbox"/> 61		ft.
surged with block and bailed	<input type="checkbox"/> 42	Data mm/dd/yy	b. 9/17/19
surged with block and pumped	<input type="checkbox"/> 62	Time	<input type="checkbox"/> p.m. <input checked="" type="checkbox"/> a.m.
surged with block, bailed and pumped	<input type="checkbox"/> 70	c. 9:37	9/17/19
compressed air	<input type="checkbox"/> 20		10:07
bailed only	<input type="checkbox"/> 10		<input type="checkbox"/> p.m. <input checked="" type="checkbox"/> a.m.
pumped only	<input type="checkbox"/> 51	12. Sediment in well bottom	0 inches
pumped slowly	<input type="checkbox"/> 50		
Other _____	<input type="checkbox"/>	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe)
3. Time spent developing well	30	min.	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe)
4. Depth of well (from top of Casing)		ft.	
5. Inside diameter of well	2.07	in.	
6. Volume of water in filter pack and well casing		gal.	Fill in if drilling fluids were used and well is at solid waste facility:
7. Volume of water removed from well		gal.	
8. Volume of water added (If any)	0	gal.	14. Total suspended solids mg/l
9. Source of water added _____			15. COD mg/l
10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)			

16. Additional comments on development:

Well developed by: Person's Name and Firm Name: <u>David Larsen (REI)</u>	I hereby certify that the above Information is true and correct to the best of my knowledge. Signature: <u>DL</u> Print Initials: <u>DNL</u> Firm: <u>REI Engineering, Inc.</u>
Firm: <u>REI Engineering, Inc.</u> 4020 N 20th Ave. Wausau, WI 54401	

NOTE: Shaded areas are for DNR use only. See instructions for more information including a list of county codes.

Facility/Project Name Karen's Korner	County Name Douglas	Well Name MW6
Facility Licence, Permit or Monitoring Number	County Code 16	Wis. Unique Well Number  DNR Well Number

1. Can this well be purged dry?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
		Before Development	After Development
2. Well development method		11. Depth to Water (from top of well casing)	
surged with bailer and bailed	<input type="checkbox"/> 41	a. 4.80 ft.	ft.
surged with bailer and pumped	<input checked="" type="checkbox"/> 61	b. 9/17/19	9/17/19
surged with block and bailed	<input type="checkbox"/> 42	mm/dd/yy	<input type="checkbox"/> p.m. <input checked="" type="checkbox"/> a.m.
surged with block and pumped	<input type="checkbox"/> 62	Time	c. 9:25
surged with block, bailed and pumped	<input type="checkbox"/> 70		9:55
compressed air	<input type="checkbox"/> 20		<input type="checkbox"/> p.m. <input checked="" type="checkbox"/> a.m.
bailed only	<input type="checkbox"/> 10		0 inches
pumped only	<input type="checkbox"/> 51	12. Sediment in well bottom	inches
pumped slowly	<input type="checkbox"/> 50		
Other _____	<input type="checkbox"/>	13. Water clarity	Clear Turbid (Describe)
3. Time spent developing well	30	min.	<input type="checkbox"/> 10 <input checked="" type="checkbox"/> 15
4. Depth of well (from top of Casing)		ft.	Clear Turbid (Describe)
5. Inside diameter of well	2.07	in.	<input type="checkbox"/> 10 <input checked="" type="checkbox"/> 15
6. Volume of water in filter pack and well casing		gal.	
Fill in if drilling fluids were used and well is at solid waste facility:			
7. Volume of water removed from well		gal.	
8. Volume of water added (If any)	0	gal.	mg/l
9. Source of water added _____			mg/l
10. Analysis performed on water added? (If yes, attach results)	<input type="checkbox"/> Yes <input type="checkbox"/> No	14. Total suspended solids	mg/l
15. COD		mg/l	mg/l

16. Additional comments on development:

Well developed by: Person's Name and Firm  Name: <u>David Larsen (REI)</u>	I hereby certify that the above Information is true and correct to the best of my knowledge.  Signature: <u>D. Larsen</u> Print Initials: <u>D. L. C.</u> Firm: <u>REI Engineering, Inc.</u>
Firm: <u>REI Engineering, Inc.</u> 4020 N 20th Ave. Wausau, WI 54401	

NOTE: Shaded areas are for DNR use only. See instructions for more information including a list of county codes.

Facility/Project Name Karen's Korner	County Name Douglas	Well Name MW7
Facility Licence, Permit or Monitoring Number	County Code 16	Wis. Unique Well Number  DNR Well Number

1. Can this well be purged dry?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Before Development		After Development	
2. Well development method	<input type="checkbox"/> 41 <input checked="" type="checkbox"/> 61 <input type="checkbox"/> 42 <input type="checkbox"/> 62 <input type="checkbox"/> 70 <input type="checkbox"/> 20 <input type="checkbox"/> 10 <input type="checkbox"/> 51 <input type="checkbox"/> 50 Other _____	11. Depth to Water (from top of well casing)	a. 4.67 ft.	ft.	
		Data mm/dd/yy	b. 9/17/19	9/17/19	
		Time	c. 9:00	<input type="checkbox"/> p.m. <input checked="" type="checkbox"/> a.m.	9:30 <input type="checkbox"/> p.m. <input checked="" type="checkbox"/> a.m.
3. Time spent developing well	30 min.	12. Sediment in well bottom	inches	0 inches	
4. Depth of well (from top of Casing)	ft.	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe)	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe)	
5. Inside diameter of well	2.07 in.				
6. Volume of water in filter pack and well casing	gal.				
7. Volume of water removed from well	gal.				
8. Volume of water added (If any)	0 gal.	14. Total suspended solids	mg/l	mg/l	
9. Source of water added _____		15. COD	mg/l	mg/l	
10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)					

16. Additional comments on development:

Well developed by: Person's Name and Firm  Name: <u>David Larsen (REI)</u>  Firm: <u>REI Engineering, Inc.</u> 4020 N 20th Ave. Wausau, WI 54401	I hereby certify that the above Information is true and correct to the best of my knowledge.  Signature: <u>David Larsen</u> Print Initials: <u>D L</u> Firm: <u>REI Engineering, Inc.</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information including a list of county codes.

Facility/Project Name Karen's Korner	County Name Douglas	Well Name PZ1
Facility Licence, Permit or Monitoring Number	County Code 16	Wis. Unique Well Number  DNR Well Number

1. Can this well be purged dry?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Before Development	After Development
2. Well development method			
surged with bailer and bailed	<input type="checkbox"/> 41	11. Depth to Water (from top of well casing)	a. 4.19 ft.
surged with bailer and pumped	<input checked="" type="checkbox"/> 61		18.26 ft.
surged with block and bailed	<input type="checkbox"/> 42	Data mm/dd/yy	9/17/19
surged with block and pumped	<input type="checkbox"/> 62	Time	<input type="checkbox"/> p.m. <input checked="" type="checkbox"/> a.m.
surged with block, bailed and pumped	<input type="checkbox"/> 70	c. 10:05	10:35
compressed air	<input type="checkbox"/> 20		<input type="checkbox"/> p.m. <input checked="" type="checkbox"/> a.m.
bailed only	<input type="checkbox"/> 10		
pumped only	<input type="checkbox"/> 51	12. Sediment in well bottom	0 inches
pumped slowly	<input type="checkbox"/> 50		
Other _____	<input type="checkbox"/>	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe)
3. Time spent developing well	30	min.	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe)
4. Depth of well (from top of Casing)	27.91	ft.	
5. Inside diameter of well	2.07	in.	
6. Volume of water in filter pack and well casing	gal.		Fill in if drilling fluids were used and well is at solid waste facility:
7. Volume of water removed from well	gal.		
8. Volume of water added (If any)	0 gal.	14. Total suspended solids	mg/l
9. Source of water added _____		15. COD	mg/l
10. Analysis performed on water added? <input type="checkbox"/> Yes <input type="checkbox"/> No (If yes, attach results)			

16. Additional comments on development:

Water clear to start and remained clear. Removed 12 gallons

Well developed by: Person's Name and Firm  Name: <u>David Larsen (REI)</u>	I hereby certify that the above Information is true and correct to the best of my knowledge.  Signature: <u>David Larsen</u> Print Initials: <u>D L L</u>
Firm: <u>REI Engineering, Inc.</u> 4020 N 20th Ave. Wausau, WI 54401	Firm: <u>REI Engineering, Inc.</u>

NOTE: Shaded areas are for DNR use only. See instructions for more information including a list of county codes.

## **APPENDIX B**

### **LABORATORY ANALYTICAL REPORT**



September 30, 2019

DAVID LARSEN  
REI  
4080 NORTH 20TH AVENUE  
Wausau, WI 54401

RE: Project: 5619 KAREN'S KORNER  
Pace Project No.: 40195699

Dear DAVID LARSEN:

Enclosed are the analytical results for sample(s) received by the laboratory on September 21, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



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

Enclosures



## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.

## CERTIFICATIONS

Project: 5619 KAREN'S KORNER  
Pace Project No.: 40195699

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### **Minnesota Certification IDs**

1700 Elm Street SE, Minneapolis, MN 55414-2485  
A2LA Certification #: 2926.01  
Alabama Certification #: 40770  
Alaska Contaminated Sites Certification #: 17-009  
Alaska DW Certification #: MN00064  
Arizona Certification #: AZ0014  
Arkansas DW Certification #: MN00064  
Arkansas WW Certification #: 88-0680  
California Certification #: 2929  
CNMI Saipan Certification #: MP0003  
Colorado Certification #: MN00064  
Connecticut Certification #: PH-0256  
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137  
Florida Certification #: E87605  
Georgia Certification #: 959  
Guam EPA Certification #: MN00064  
Hawaii Certification #: MN00064  
Idaho Certification #: MN00064  
Illinois Certification #: 200011  
Indiana Certification #: C-MN-01  
Iowa Certification #: 368  
Kansas Certification #: E-10167  
Kentucky DW Certification #: 90062  
Kentucky WW Certification #: 90062  
Louisiana DEQ Certification #: 03086  
Louisiana DW Certification #: MN00064  
Maine Certification #: MN00064  
Maryland Certification #: 322  
Massachusetts Certification #: M-MN064  
Michigan Certification #: 9909  
Minnesota Certification #: 027-053-137

Minnesota Dept of Ag Certification #: via MN 027-053-137  
Minnesota Petrofund Certification #: 1240  
Mississippi Certification #: MN00064  
Missouri Certification #: 10100  
Montana Certification #: CERT0092  
Nebraska Certification #: NE-OS-18-06  
Nevada Certification #: MN00064  
New Hampshire Certification #: 2081  
New Jersey Certification #: MN002  
New York Certification #: 11647  
North Carolina DW Certification #: 27700  
North Carolina WW Certification #: 530  
North Dakota Certification #: R-036  
Ohio DW Certification #: 41244  
Ohio VAP Certification #: CL101  
Oklahoma Certification #: 9507  
Oregon Primary Certification #: MN300001  
Oregon Secondary Certification #: MN200001  
Pennsylvania Certification #: 68-00563  
Puerto Rico Certification #: MN00064  
South Carolina Certification #: 74003001  
Tennessee Certification #: TN02818  
Texas Certification #: T104704192  
Utah Certification #: MN00064  
Vermont Certification #: VT-027053137  
Virginia Certification #: 460163  
Washington Certification #: C486  
West Virginia DEP Certification #: 382  
West Virginia DW Certification #: 9952 C  
Wisconsin Certification #: 999407970  
Wyoming UST Certification #: via A2LA 2926.01

### **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

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 5619 KAREN'S KORNER  
 Pace Project No.: 40195699

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40195699001	MW2	Water	09/17/19 10:00	09/21/19 10:00
40195699002	MW3	Water	09/17/19 09:55	09/21/19 10:00
40195699003	MW4R	Water	09/17/19 10:25	09/21/19 10:00
40195699004	MW5	Water	09/17/19 10:07	09/21/19 10:00
40195699005	MW6	Water	09/17/19 09:55	09/21/19 10:00
40195699006	MW7	Water	09/17/19 09:30	09/21/19 10:00
40195699007	PZ1	Water	09/17/19 10:35	09/21/19 10:00
40195699008	POTABLE	Water	09/17/19 10:29	09/21/19 10:00

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: 5619 KAREN'S KORNER  
Pace Project No.: 40195699

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40195699001	MW2	EPA 8260	LAP	12	PASI-G
40195699002	MW3	EPA 8260	LAP	12	PASI-G
40195699003	MW4R	EPA 8260	LAP	12	PASI-G
40195699004	MW5	EPA 8260	LAP	12	PASI-G
40195699005	MW6	EPA 8260	LAP	12	PASI-G
40195699006	MW7	EPA 8260	LAP	12	PASI-G
40195699007	PZ1	EPA 8260	LAP	12	PASI-G
40195699008	POTABLE	EPA 524.2	DS2	62	PASI-M

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 5619 KAREN'S KORNER  
Pace Project No.: 40195699

Sample: MW2	Lab ID: 40195699001	Collected: 09/17/19 10:00	Received: 09/21/19 10:00	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>	Analytical Method: EPA 8260								
Benzene	<0.25	ug/L	1.0	0.25	1		09/24/19 15:50	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		09/24/19 15:50	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		09/24/19 15:50	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		09/24/19 15:50	91-20-3	
Toluene	<0.17	ug/L	5.0	0.17	1		09/24/19 15:50	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		09/24/19 15:50	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		09/24/19 15:50	108-67-8	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		09/24/19 15:50	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		09/24/19 15:50	95-47-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	101	%	70-130		1		09/24/19 15:50	1868-53-7	
Toluene-d8 (S)	109	%	70-130		1		09/24/19 15:50	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		09/24/19 15:50	460-00-4	
<hr/>									
Sample: MW3	Lab ID: 40195699002	Collected: 09/17/19 09:55	Received: 09/21/19 10:00	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>	Analytical Method: EPA 8260								
Benzene	0.34J	ug/L	1.0	0.25	1		09/24/19 16:12	71-43-2	
Ethylbenzene	5.8	ug/L	1.0	0.22	1		09/24/19 16:12	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		09/24/19 16:12	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		09/24/19 16:12	91-20-3	
Toluene	0.46J	ug/L	5.0	0.17	1		09/24/19 16:12	108-88-3	
1,2,4-Trimethylbenzene	5.4	ug/L	2.8	0.84	1		09/24/19 16:12	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		09/24/19 16:12	108-67-8	
m&p-Xylene	5.4	ug/L	2.0	0.47	1		09/24/19 16:12	179601-23-1	
o-Xylene	0.76J	ug/L	1.0	0.26	1		09/24/19 16:12	95-47-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	102	%	70-130		1		09/24/19 16:12	1868-53-7	
Toluene-d8 (S)	107	%	70-130		1		09/24/19 16:12	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1		09/24/19 16:12	460-00-4	
<hr/>									
Sample: MW4R	Lab ID: 40195699003	Collected: 09/17/19 10:25	Received: 09/21/19 10:00	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>	Analytical Method: EPA 8260								
Benzene	<0.25	ug/L	1.0	0.25	1		09/25/19 07:09	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		09/25/19 07:09	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		09/25/19 07:09	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		09/25/19 07:09	91-20-3	
Toluene	<0.17	ug/L	5.0	0.17	1		09/25/19 07:09	108-88-3	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 5619 KAREN'S KORNER

Pace Project No.: 40195699

Sample: MW4R	Lab ID: 40195699003	Collected: 09/17/19 10:25	Received: 09/21/19 10:00	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>	Analytical Method: EPA 8260								
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		09/25/19 07:09	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		09/25/19 07:09	108-67-8	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		09/25/19 07:09	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		09/25/19 07:09	95-47-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	102	%	70-130		1		09/25/19 07:09	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1		09/25/19 07:09	2037-26-5	
4-Bromofluorobenzene (S)	89	%	70-130		1		09/25/19 07:09	460-00-4	
<hr/>									
Sample: MW5	Lab ID: 40195699004	Collected: 09/17/19 10:07	Received: 09/21/19 10:00	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>	Analytical Method: EPA 8260								
Benzene	<0.25	ug/L	1.0	0.25	1		09/24/19 16:34	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		09/24/19 16:34	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		09/24/19 16:34	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		09/24/19 16:34	91-20-3	
Toluene	<0.17	ug/L	5.0	0.17	1		09/24/19 16:34	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		09/24/19 16:34	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		09/24/19 16:34	108-67-8	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		09/24/19 16:34	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		09/24/19 16:34	95-47-6	
<b>Surrogates</b>									
Dibromofluoromethane (S)	105	%	70-130		1		09/24/19 16:34	1868-53-7	
Toluene-d8 (S)	105	%	70-130		1		09/24/19 16:34	2037-26-5	
4-Bromofluorobenzene (S)	97	%	70-130		1		09/24/19 16:34	460-00-4	
<hr/>									
Sample: MW6	Lab ID: 40195699005	Collected: 09/17/19 09:55	Received: 09/21/19 10:00	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>	Analytical Method: EPA 8260								
Benzene	<0.25	ug/L	1.0	0.25	1		09/24/19 16:56	71-43-2	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		09/24/19 16:56	100-41-4	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		09/24/19 16:56	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		09/24/19 16:56	91-20-3	
Toluene	<0.17	ug/L	5.0	0.17	1		09/24/19 16:56	108-88-3	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		09/24/19 16:56	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		09/24/19 16:56	108-67-8	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		09/24/19 16:56	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		09/24/19 16:56	95-47-6	

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## ANALYTICAL RESULTS

Project: 5619 KAREN'S KORNER

Pace Project No.: 40195699

Sample: MW6	Lab ID: 40195699005	Collected: 09/17/19 09:55	Received: 09/21/19 10:00	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>		Analytical Method: EPA 8260							
<b>Surrogates</b>									
Dibromofluoromethane (S)	102	%	70-130		1		09/24/19 16:56	1868-53-7	
Toluene-d8 (S)	103	%	70-130		1		09/24/19 16:56	2037-26-5	
4-Bromofluorobenzene (S)	91	%	70-130		1		09/24/19 16:56	460-00-4	
Sample: MW7	Lab ID: 40195699006	Collected: 09/17/19 09:30	Received: 09/21/19 10:00	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>		Analytical Method: EPA 8260							
Benzene	<0.25	ug/L		1.0	0.25	1		09/24/19 17:18	71-43-2
Ethylbenzene	<0.22	ug/L		1.0	0.22	1		09/24/19 17:18	100-41-4
Methyl-tert-butyl ether	<1.2	ug/L		4.2	1.2	1		09/24/19 17:18	1634-04-4
Naphthalene	<1.2	ug/L		5.0	1.2	1		09/24/19 17:18	91-20-3
Toluene	<0.17	ug/L		5.0	0.17	1		09/24/19 17:18	108-88-3
1,2,4-Trimethylbenzene	<0.84	ug/L		2.8	0.84	1		09/24/19 17:18	95-63-6
1,3,5-Trimethylbenzene	<0.87	ug/L		2.9	0.87	1		09/24/19 17:18	108-67-8
m&p-Xylene	<0.47	ug/L		2.0	0.47	1		09/24/19 17:18	179601-23-1
o-Xylene	<0.26	ug/L		1.0	0.26	1		09/24/19 17:18	95-47-6
<b>Surrogates</b>									
Dibromofluoromethane (S)	104	%	70-130		1		09/24/19 17:18	1868-53-7	
Toluene-d8 (S)	111	%	70-130		1		09/24/19 17:18	2037-26-5	
4-Bromofluorobenzene (S)	95	%	70-130		1		09/24/19 17:18	460-00-4	
Sample: PZ1	Lab ID: 40195699007	Collected: 09/17/19 10:35	Received: 09/21/19 10:00	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>		Analytical Method: EPA 8260							
Benzene	<0.25	ug/L		1.0	0.25	1		09/24/19 17:40	71-43-2
Ethylbenzene	<0.22	ug/L		1.0	0.22	1		09/24/19 17:40	100-41-4
Methyl-tert-butyl ether	<1.2	ug/L		4.2	1.2	1		09/24/19 17:40	1634-04-4
Naphthalene	<1.2	ug/L		5.0	1.2	1		09/24/19 17:40	91-20-3
Toluene	<0.17	ug/L		5.0	0.17	1		09/24/19 17:40	108-88-3
1,2,4-Trimethylbenzene	<0.84	ug/L		2.8	0.84	1		09/24/19 17:40	95-63-6
1,3,5-Trimethylbenzene	<0.87	ug/L		2.9	0.87	1		09/24/19 17:40	108-67-8
m&p-Xylene	<0.47	ug/L		2.0	0.47	1		09/24/19 17:40	179601-23-1
o-Xylene	<0.26	ug/L		1.0	0.26	1		09/24/19 17:40	95-47-6
<b>Surrogates</b>									
Dibromofluoromethane (S)	103	%	70-130		1		09/24/19 17:40	1868-53-7	
Toluene-d8 (S)	108	%	70-130		1		09/24/19 17:40	2037-26-5	
4-Bromofluorobenzene (S)	97	%	70-130		1		09/24/19 17:40	460-00-4	

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## ANALYTICAL RESULTS

Project: 5619 KAREN'S KORNER

Pace Project No.: 40195699

Sample: POTABLE	Lab ID: 40195699008	Collected: 09/17/19 10:29	Received: 09/21/19 10:00	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>524.2 MSV</b>	Analytical Method: EPA 524.2								
Benzene	<0.12	ug/L	0.41	0.12	1		09/27/19 19:36	71-43-2	
Bromobenzene	<0.23	ug/L	0.76	0.23	1		09/27/19 19:36	108-86-1	
Bromochloromethane	<0.30	ug/L	0.99	0.30	1		09/27/19 19:36	74-97-5	
Bromodichloromethane	<0.15	ug/L	0.50	0.15	1		09/27/19 19:36	75-27-4	
Bromoform	<0.45	ug/L	1.5	0.45	1		09/27/19 19:36	75-25-2	
Bromomethane	<0.62	ug/L	2.1	0.62	1		09/27/19 19:36	74-83-9	
n-Butylbenzene	<0.14	ug/L	0.47	0.14	1		09/27/19 19:36	104-51-8	
sec-Butylbenzene	<0.20	ug/L	0.68	0.20	1		09/27/19 19:36	135-98-8	
tert-Butylbenzene	<0.14	ug/L	0.46	0.14	1		09/27/19 19:36	98-06-6	
Carbon tetrachloride	<0.20	ug/L	0.67	0.20	1		09/27/19 19:36	56-23-5	
Chlorobenzene	<0.12	ug/L	0.40	0.12	1		09/27/19 19:36	108-90-7	
Chloroethane	<0.14	ug/L	0.47	0.14	1		09/27/19 19:36	75-00-3	
Chloroform	<0.31	ug/L	1.0	0.31	1		09/27/19 19:36	67-66-3	
Chloromethane	<0.15	ug/L	0.51	0.15	1		09/27/19 19:36	74-87-3	
2-Chlorotoluene	<0.086	ug/L	0.29	0.086	1		09/27/19 19:36	95-49-8	
4-Chlorotoluene	<0.093	ug/L	0.31	0.093	1		09/27/19 19:36	106-43-4	
1,2-Dibromo-3-chloropropane	<2.0	ug/L	6.5	2.0	1		09/27/19 19:36	96-12-8	N2
Dibromochloromethane	<0.24	ug/L	0.81	0.24	1		09/27/19 19:36	124-48-1	
1,2-Dibromoethane (EDB)	<0.17	ug/L	0.57	0.17	1		09/27/19 19:36	106-93-4	N2
Dibromomethane	<0.23	ug/L	0.76	0.23	1		09/27/19 19:36	74-95-3	
1,2-Dichlorobenzene	<0.18	ug/L	0.58	0.18	1		09/27/19 19:36	95-50-1	
1,3-Dichlorobenzene	<0.14	ug/L	0.46	0.14	1		09/27/19 19:36	541-73-1	
1,4-Dichlorobenzene	<0.086	ug/L	0.29	0.086	1		09/27/19 19:36	106-46-7	
Dichlorodifluoromethane	<0.26	ug/L	0.87	0.26	1		09/27/19 19:36	75-71-8	
1,1-Dichloroethane	<0.16	ug/L	0.55	0.16	1		09/27/19 19:36	75-34-3	
1,2-Dichloroethane	<0.13	ug/L	0.45	0.13	1		09/27/19 19:36	107-06-2	
1,1-Dichloroethene	<0.19	ug/L	0.62	0.19	1		09/27/19 19:36	75-35-4	
cis-1,2-Dichloroethene	<0.14	ug/L	0.46	0.14	1		09/27/19 19:36	156-59-2	
trans-1,2-Dichloroethene	<0.18	ug/L	0.59	0.18	1		09/27/19 19:36	156-60-5	
1,2-Dichloropropane	<0.19	ug/L	0.64	0.19	1		09/27/19 19:36	78-87-5	
1,3-Dichloropropane	<0.11	ug/L	0.35	0.11	1		09/27/19 19:36	142-28-9	N2
2,2-Dichloropropane	<0.16	ug/L	0.53	0.16	1		09/27/19 19:36	594-20-7	
1,1-Dichloropropene	<0.10	ug/L	0.35	0.10	1		09/27/19 19:36	563-58-6	
cis-1,3-Dichloropropene	<0.21	ug/L	0.69	0.21	1		09/27/19 19:36	10061-01-5	
trans-1,3-Dichloropropene	<0.24	ug/L	0.81	0.24	1		09/27/19 19:36	10061-02-6	
Ethylbenzene	<0.11	ug/L	0.36	0.11	1		09/27/19 19:36	100-41-4	
Hexachloro-1,3-butadiene	<0.28	ug/L	0.92	0.28	1		09/27/19 19:36	87-68-3	
Isopropylbenzene (Cumene)	<0.17	ug/L	0.57	0.17	1		09/27/19 19:36	98-82-8	
p-Isopropyltoluene	<0.21	ug/L	0.71	0.21	1		09/27/19 19:36	99-87-6	N2
Methylene Chloride	<0.44	ug/L	1.5	0.44	1		09/27/19 19:36	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	0.56	0.17	1		09/27/19 19:36	1634-04-4	
Naphthalene	<0.18	ug/L	0.60	0.18	1		09/27/19 19:36	91-20-3	
n-Propylbenzene	<0.13	ug/L	0.44	0.13	1		09/27/19 19:36	103-65-1	
Styrene	<0.18	ug/L	0.59	0.18	1		09/27/19 19:36	100-42-5	
1,1,1,2-Tetrachloroethane	<0.12	ug/L	0.39	0.12	1		09/27/19 19:36	630-20-6	
1,1,2,2-Tetrachloroethane	<0.17	ug/L	0.56	0.17	1		09/27/19 19:36	79-34-5	

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## ANALYTICAL RESULTS

Project: 5619 KAREN'S KORNER

Pace Project No.: 40195699

Sample: POTABLE	Lab ID: 40195699008	Collected: 09/17/19 10:29	Received: 09/21/19 10:00	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>524.2 MSV</b>	Analytical Method: EPA 524.2								
Tetrachloroethene	<0.17	ug/L	0.56	0.17	1		09/27/19 19:36	127-18-4	
Toluene	<0.078	ug/L	0.26	0.078	1		09/27/19 19:36	108-88-3	
1,2,3-Trichlorobenzene	<0.25	ug/L	0.83	0.25	1		09/27/19 19:36	87-61-6	
1,2,4-Trichlorobenzene	<0.19	ug/L	0.64	0.19	1		09/27/19 19:36	120-82-1	
1,1,1-Trichloroethane	<0.19	ug/L	0.62	0.19	1		09/27/19 19:36	71-55-6	
1,1,2-Trichloroethane	<0.19	ug/L	0.62	0.19	1		09/27/19 19:36	79-00-5	
Trichloroethene	<0.12	ug/L	0.39	0.12	1		09/27/19 19:36	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	0.70	0.21	1		09/27/19 19:36	75-69-4	
1,2,3-Trichloropropane	<0.39	ug/L	1.3	0.39	1		09/27/19 19:36	96-18-4	
1,2,4-Trimethylbenzene	<0.23	ug/L	0.76	0.23	1		09/27/19 19:36	95-63-6	
1,3,5-Trimethylbenzene	<0.15	ug/L	0.49	0.15	1		09/27/19 19:36	108-67-8	N2
Vinyl chloride	<0.086	ug/L	0.29	0.086	1		09/27/19 19:36	75-01-4	
Xylene (Total)	<0.30	ug/L	1.0	0.30	1		09/27/19 19:36	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	95	%.	75-125		1		09/27/19 19:36	460-00-4	
Toluene-d8 (S)	98	%.	75-125		1		09/27/19 19:36	2037-26-5	
1,2-Dichloroethane-d4 (S)	100	%.	75-125		1		09/27/19 19:36	17060-07-0	

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## QUALITY CONTROL DATA

Project: 5619 KAREN'S KORNER

Pace Project No.: 40195699

QC Batch:	635041	Analysis Method:	EPA 524.2
QC Batch Method:	EPA 524.2	Analysis Description:	524.2 MSV
Associated Lab Samples:	40195699008		

METHOD BLANK: 3422603                                          Matrix: Water

Associated Lab Samples: 40195699008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.12	0.39	09/27/19 17:14	
1,1,1-Trichloroethane	ug/L	<0.19	0.62	09/27/19 17:14	
1,1,2,2-Tetrachloroethane	ug/L	<0.17	0.56	09/27/19 17:14	
1,1,2-Trichloroethane	ug/L	<0.19	0.62	09/27/19 17:14	
1,1-Dichloroethane	ug/L	<0.16	0.55	09/27/19 17:14	
1,1-Dichloroethene	ug/L	<0.19	0.62	09/27/19 17:14	
1,1-Dichloropropene	ug/L	<0.10	0.35	09/27/19 17:14	
1,2,3-Trichlorobenzene	ug/L	<0.25	0.83	09/27/19 17:14	
1,2,3-Trichloropropane	ug/L	<0.39	1.3	09/27/19 17:14	
1,2,4-Trichlorobenzene	ug/L	<0.19	0.64	09/27/19 17:14	
1,2,4-Trimethylbenzene	ug/L	<0.23	0.76	09/27/19 17:14	
1,2-Dibromo-3-chloropropane	ug/L	<2.0	6.5	09/27/19 17:14	N2
1,2-Dibromoethane (EDB)	ug/L	<0.17	0.57	09/27/19 17:14	N2
1,2-Dichlorobenzene	ug/L	<0.18	0.58	09/27/19 17:14	
1,2-Dichloroethane	ug/L	<0.13	0.45	09/27/19 17:14	MN
1,2-Dichloropropane	ug/L	<0.19	0.64	09/27/19 17:14	
1,3,5-Trimethylbenzene	ug/L	<0.15	0.49	09/27/19 17:14	N2
1,3-Dichlorobenzene	ug/L	<0.14	0.46	09/27/19 17:14	
1,3-Dichloropropane	ug/L	<0.11	0.35	09/27/19 17:14	N2
1,4-Dichlorobenzene	ug/L	<0.086	0.29	09/27/19 17:14	
2,2-Dichloropropane	ug/L	<0.16	0.53	09/27/19 17:14	
2-Chlorotoluene	ug/L	<0.086	0.29	09/27/19 17:14	
4-Chlorotoluene	ug/L	<0.093	0.31	09/27/19 17:14	
Benzene	ug/L	<0.12	0.41	09/27/19 17:14	
Bromobenzene	ug/L	<0.23	0.76	09/27/19 17:14	
Bromochloromethane	ug/L	<0.30	0.99	09/27/19 17:14	
Bromodichloromethane	ug/L	<0.15	0.50	09/27/19 17:14	
Bromoform	ug/L	<0.45	1.5	09/27/19 17:14	
Bromomethane	ug/L	<0.62	2.1	09/27/19 17:14	
Carbon tetrachloride	ug/L	<0.20	0.67	09/27/19 17:14	
Chlorobenzene	ug/L	<0.12	0.40	09/27/19 17:14	
Chloroethane	ug/L	<0.14	0.47	09/27/19 17:14	
Chloroform	ug/L	<0.31	1.0	09/27/19 17:14	MN
Chloromethane	ug/L	<0.15	0.51	09/27/19 17:14	
cis-1,2-Dichloroethene	ug/L	<0.14	0.46	09/27/19 17:14	
cis-1,3-Dichloropropene	ug/L	<0.21	0.69	09/27/19 17:14	
Dibromochloromethane	ug/L	<0.24	0.81	09/27/19 17:14	
Dibromomethane	ug/L	<0.23	0.76	09/27/19 17:14	
Dichlorodifluoromethane	ug/L	<0.26	0.87	09/27/19 17:14	
Ethylbenzene	ug/L	<0.11	0.36	09/27/19 17:14	
Hexachloro-1,3-butadiene	ug/L	<0.28	0.92	09/27/19 17:14	

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.

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## QUALITY CONTROL DATA

Project: 5619 KAREN'S KORNER

Pace Project No.: 40195699

METHOD BLANK: 3422603

Matrix: Water

Associated Lab Samples: 40195699008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Isopropylbenzene (Cumene)	ug/L	<0.17	0.57	09/27/19 17:14	
Methyl-tert-butyl ether	ug/L	<0.17	0.56	09/27/19 17:14	
Methylene Chloride	ug/L	<0.44	1.5	09/27/19 17:14	
n-Butylbenzene	ug/L	<0.14	0.47	09/27/19 17:14	
n-Propylbenzene	ug/L	<0.13	0.44	09/27/19 17:14	
Naphthalene	ug/L	<0.18	0.60	09/27/19 17:14	
p-Isopropyltoluene	ug/L	<0.21	0.71	09/27/19 17:14	N2
sec-Butylbenzene	ug/L	<0.20	0.68	09/27/19 17:14	
Styrene	ug/L	<0.18	0.59	09/27/19 17:14	
tert-Butylbenzene	ug/L	<0.14	0.46	09/27/19 17:14	
Tetrachloroethene	ug/L	<0.17	0.56	09/27/19 17:14	
Toluene	ug/L	<0.078	0.26	09/27/19 17:14	
trans-1,2-Dichloroethene	ug/L	<0.18	0.59	09/27/19 17:14	
trans-1,3-Dichloropropene	ug/L	<0.24	0.81	09/27/19 17:14	
Trichloroethene	ug/L	<0.12	0.39	09/27/19 17:14	
Trichlorofluoromethane	ug/L	<0.21	0.70	09/27/19 17:14	
Vinyl chloride	ug/L	<0.086	0.29	09/27/19 17:14	
Xylene (Total)	ug/L	<0.30	1.0	09/27/19 17:14	
1,2-Dichloroethane-d4 (S)	%.	98	75-125	09/27/19 17:14	
4-Bromofluorobenzene (S)	%.	97	75-125	09/27/19 17:14	
Toluene-d8 (S)	%.	100	75-125	09/27/19 17:14	

LABORATORY CONTROL SAMPLE: 3422604

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	20.1	101	70-130	
1,1,1-Trichloroethane	ug/L	20	19.8	99	70-130	
1,1,2,2-Tetrachloroethane	ug/L	20	19.3	96	70-130	
1,1,2-Trichloroethane	ug/L	20	19.5	97	70-130	
1,1-Dichloroethane	ug/L	20	17.9	89	70-130	
1,1-Dichloroethene	ug/L	20	19.2	96	70-130	
1,1-Dichloropropene	ug/L	20	19.7	99	70-130	
1,2,3-Trichlorobenzene	ug/L	20	20.1	101	70-130	
1,2,3-Trichloropropane	ug/L	20	20.3	102	70-130	
1,2,4-Trichlorobenzene	ug/L	20	19.5	98	70-130	
1,2,4-Trimethylbenzene	ug/L	20	20.1	101	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	48.9	98	70-130 N2	
1,2-Dibromoethane (EDB)	ug/L	20	19.9	100	70-130 N2	
1,2-Dichlorobenzene	ug/L	20	20.4	102	70-130	
1,2-Dichloroethane	ug/L	20	18.2	91	70-130	
1,2-Dichloropropane	ug/L	20	16.6	83	70-130	
1,3,5-Trimethylbenzene	ug/L	20	19.9	99	70-130 N2	
1,3-Dichlorobenzene	ug/L	20	19.8	99	70-130	
1,3-Dichloropropane	ug/L	20	19.8	99	70-130 N2	

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 5619 KAREN'S KORNER

Pace Project No.: 40195699

LABORATORY CONTROL SAMPLE: 3422604

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	20	19.5	98	70-130	
2,2-Dichloropropane	ug/L	20	18.4	92	70-130	
2-Chlorotoluene	ug/L	20	18.7	93	70-130	
4-Chlorotoluene	ug/L	20	18.9	94	70-130	
Benzene	ug/L	20	18.2	91	70-130	
Bromobenzene	ug/L	20	20.3	101	70-130	
Bromochloromethane	ug/L	20	19.6	98	70-130	
Bromodichloromethane	ug/L	20	19.2	96	70-130	
Bromoform	ug/L	20	22.0	110	70-130	
Bromomethane	ug/L	20	22.2	111	70-130	
Carbon tetrachloride	ug/L	20	19.5	97	70-130	
Chlorobenzene	ug/L	20	19.3	96	70-130	
Chloroethane	ug/L	20	19.4	97	70-130	
Chloroform	ug/L	20	18.8	94	70-130	
Chloromethane	ug/L	20	20.5	103	70-130	
cis-1,2-Dichloroethene	ug/L	20	18.0	90	70-130	
cis-1,3-Dichloropropene	ug/L	20	19.6	98	70-130	
Dibromochloromethane	ug/L	20	21.6	108	70-130	
Dibromomethane	ug/L	20	19.3	96	70-130	
Dichlorodifluoromethane	ug/L	20	19.1	96	70-130	
Ethylbenzene	ug/L	20	19.0	95	70-130	
Hexachloro-1,3-butadiene	ug/L	20	20.5	103	70-130	
Isopropylbenzene (Cumene)	ug/L	20	19.4	97	70-130	
Methyl-tert-butyl ether	ug/L	20	18.4	92	70-130	
Methylene Chloride	ug/L	20	18.7	94	70-130	
n-Butylbenzene	ug/L	20	20.1	100	70-130	
n-Propylbenzene	ug/L	20	19.9	99	70-130	
Naphthalene	ug/L	20	20.3	101	70-130	
p-Isopropyltoluene	ug/L	20	19.6	98	70-130 N2	
sec-Butylbenzene	ug/L	20	19.9	99	70-130	
Styrene	ug/L	20	20.2	101	70-130	
tert-Butylbenzene	ug/L	20	19.9	99	70-130	
Tetrachloroethene	ug/L	20	20.2	101	70-130	
Toluene	ug/L	20	19.8	99	70-130	
trans-1,2-Dichloroethene	ug/L	20	18.8	94	70-130	
trans-1,3-Dichloropropene	ug/L	20	18.6	93	70-130	
Trichloroethene	ug/L	20	19.1	95	70-130	
Trichlorofluoromethane	ug/L	20	19.3	96	70-130	
Vinyl chloride	ug/L	20	18.0	90	70-130	
Xylene (Total)	ug/L	60	57.0	95	70-130	
1,2-Dichloroethane-d4 (S)	%.			101	75-125	
4-Bromofluorobenzene (S)	%.			103	75-125	
Toluene-d8 (S)	%.			100	75-125	

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## QUALITY CONTROL DATA

Project: 5619 KAREN'S KORNER

Pace Project No.: 40195699

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 3422605      3422606

Parameter	Units	MS		MSD		MS Result	MSD % Rec	MSD % Rec	% Rec Limits	Max	
		40195702007	Spike Conc.	Spike Conc.	MS Result					RPD	RPD
1,1,1,2-Tetrachloroethane	ug/L	<0.12	20	20	20.4	21.4	102	107	70-130	5	20
1,1,1-Trichloroethane	ug/L	<0.19	20	20	21.1	20.7	105	104	70-130	2	20
1,1,2,2-Tetrachloroethane	ug/L	<0.17	20	20	19.3	19.8	96	99	70-130	3	20
1,1,2-Trichloroethane	ug/L	<0.19	20	20	18.8	19.3	94	96	70-130	2	20
1,1-Dichloroethane	ug/L	<0.16	20	20	19.2	18.7	96	94	70-130	2	20
1,1-Dichloroethene	ug/L	<0.19	20	20	20.9	20.1	105	100	70-130	4	20
1,1-Dichloropropene	ug/L	<0.10	20	20	20.8	20.8	104	104	70-130	0	20
1,2,3-Trichlorobenzene	ug/L	<0.25	20	20	20.9	21.8	105	109	70-130	4	20
1,2,3-Trichloropropane	ug/L	<0.39	20	20	18.8	20.3	94	102	70-130	8	20
1,2,4-Trichlorobenzene	ug/L	<0.19	20	20	20.6	21.3	103	107	70-130	3	20
1,2,4-Trimethylbenzene	ug/L	<0.23	20	20	20.6	22.0	103	110	70-130	7	20
1,2-Dibromo-3-chloropropane	ug/L	<2.0	50	50	46.0	49.3	92	99	70-130	7	20 N2
1,2-Dibromoethane (EDB)	ug/L	<0.17	20	20	20.2	20.3	101	101	70-130	0	20 N2
1,2-Dichlorobenzene	ug/L	<0.18	20	20	20.1	21.4	101	107	70-130	6	20
1,2-Dichloroethane	ug/L	<0.13	20	20	18.5	18.5	93	93	70-130	0	20
1,2-Dichloropropane	ug/L	<0.19	20	20	16.6	16.5	83	83	70-130	0	20
1,3,5-Trimethylbenzene	ug/L	<0.15	20	20	20.1	21.5	101	108	70-130	7	20 N2
1,3-Dichlorobenzene	ug/L	<0.14	20	20	20.2	21.6	101	108	70-130	7	20
1,3-Dichloropropane	ug/L	<0.11	20	20	20.1	20.2	101	101	70-130	0	20 N2
1,4-Dichlorobenzene	ug/L	<0.086	20	20	19.9	21.0	99	105	70-130	6	20
2,2-Dichloropropane	ug/L	<0.16	20	20	19.3	19.4	97	97	70-130	1	20
2-Chlorotoluene	ug/L	<0.086	20	20	19.0	20.2	95	101	70-130	6	20
4-Chlorotoluene	ug/L	<0.093	20	20	19.1	20.3	96	101	70-130	6	20
Benzene	ug/L	<0.12	20	20	19.3	18.7	96	94	70-130	3	20
Bromobenzene	ug/L	<0.23	20	20	20.0	20.6	100	103	70-130	3	20
Bromochloromethane	ug/L	<0.30	20	20	19.6	20.1	98	100	70-130	2	20
Bromodichloromethane	ug/L	<0.15	20	20	19.3	19.3	96	97	70-130	0	20
Bromoform	ug/L	<0.45	20	20	21.9	22.3	109	112	70-130	2	20
Bromomethane	ug/L	<0.62	20	20	22.2	21.5	111	108	70-130	3	20
Carbon tetrachloride	ug/L	<0.20	20	20	20.9	21.0	104	105	70-130	1	20
Chlorobenzene	ug/L	<0.12	20	20	19.9	20.3	100	102	70-130	2	20
Chloroethane	ug/L	<0.14	20	20	20.7	20.7	103	104	70-130	0	20
Chloroform	ug/L	<0.31	20	20	19.5	19.2	97	96	70-130	2	20
Chloromethane	ug/L	<0.15	20	20	20.6	19.3	103	97	70-130	6	20
cis-1,2-Dichloroethene	ug/L	<0.14	20	20	19.3	18.5	96	93	70-130	4	20
cis-1,3-Dichloropropene	ug/L	<0.21	20	20	18.9	19.1	95	96	70-130	1	20
Dibromochloromethane	ug/L	<0.24	20	20	21.3	22.2	106	111	70-130	4	20
Dibromomethane	ug/L	<0.23	20	20	19.4	19.5	97	97	70-130	0	20
Dichlorodifluoromethane	ug/L	<0.26	20	20	20.3	19.4	102	97	70-130	5	20
Ethylbenzene	ug/L	<0.11	20	20	19.2	20.3	96	101	70-130	5	20
Hexachloro-1,3-butadiene	ug/L	<0.28	20	20	23.1	21.8	116	109	70-130	6	20
Isopropylbenzene (Cumene)	ug/L	<0.17	20	20	19.9	21.7	99	109	70-130	9	20
Methyl-tert-butyl ether	ug/L	<0.17	20	20	18.8	19.3	94	96	70-130	2	20
Methylene Chloride	ug/L	<0.44	20	20	18.9	19.0	95	95	70-130	0	20

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 5619 KAREN'S KORNER

Pace Project No.: 40195699

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MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3422605      3422606

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max	
		40195702007	Spike Conc.	Spike Conc.	MS Result						RPD	RPD
n-Butylbenzene	ug/L	<0.14	20	20	21.2	21.5	106	107	70-130	1	20	
n-Propylbenzene	ug/L	<0.13	20	20	20.2	21.9	101	109	70-130	8	20	
Naphthalene	ug/L	<0.18	20	20	19.9	22.2	100	111	70-130	11	20	
p-Isopropyltoluene	ug/L	<0.21	20	20	21.0	21.4	105	107	70-130	2	20	N2
sec-Butylbenzene	ug/L	<0.20	20	20	21.0	21.6	105	108	70-130	3	20	
Styrene	ug/L	<0.18	20	20	20.5	21.3	102	107	70-130	4	20	
tert-Butylbenzene	ug/L	<0.14	20	20	20.5	21.8	103	109	70-130	6	20	
Tetrachloroethene	ug/L	<0.17	20	20	20.9	22.1	105	110	70-130	5	20	
Toluene	ug/L	<0.078	20	20	20.0	20.4	100	102	70-130	2	20	
trans-1,2-Dichloroethene	ug/L	<0.18	20	20	20.1	19.3	101	96	70-130	4	20	
trans-1,3-Dichloropropene	ug/L	<0.24	20	20	19.2	19.3	96	96	70-130	1	20	
Trichloroethene	ug/L	<0.12	20	20	20.3	19.9	102	99	70-130	2	20	
Trichlorofluoromethane	ug/L	<0.21	20	20	20.1	19.5	100	98	70-130	3	20	
Vinyl chloride	ug/L	<0.086	20	20	19.4	18.4	97	92	70-130	5	20	
Xylene (Total)	ug/L	<0.30	60	60	58.9	61.9	98	103	70-130	5	20	
1,2-Dichloroethane-d4 (S)	%.						97	98	75-125			
4-Bromofluorobenzene (S)	%.						101	99	75-125			
Toluene-d8 (S)	%.						98	100	75-125			

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## QUALITY CONTROL DATA

Project: 5619 KAREN'S KORNER

Pace Project No.: 40195699

QC Batch: 334876 Analysis Method: EPA 8260

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

Associated Lab Samples: 40195699001, 40195699002, 40195699003, 40195699004, 40195699005, 40195699006, 40195699007

METHOD BLANK: 1944842 Matrix: Water

Associated Lab Samples: 40195699001, 40195699002, 40195699003, 40195699004, 40195699005, 40195699006, 40195699007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	09/24/19 10:41	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	09/24/19 10:41	
Benzene	ug/L	<0.25	1.0	09/24/19 10:41	
Ethylbenzene	ug/L	<0.22	1.0	09/24/19 10:41	
m&p-Xylene	ug/L	<0.47	2.0	09/24/19 10:41	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	09/24/19 10:41	
Naphthalene	ug/L	<1.2	5.0	09/24/19 10:41	
o-Xylene	ug/L	<0.26	1.0	09/24/19 10:41	
Toluene	ug/L	<0.17	5.0	09/24/19 10:41	
4-Bromofluorobenzene (S)	%	92	70-130	09/24/19 10:41	
Dibromofluoromethane (S)	%	102	70-130	09/24/19 10:41	
Toluene-d8 (S)	%	105	70-130	09/24/19 10:41	

LABORATORY CONTROL SAMPLE: 1944843

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	50	49.6	99	70-130	
Ethylbenzene	ug/L	50	53.8	108	80-124	
m&p-Xylene	ug/L	100	108	108	70-130	
Methyl-tert-butyl ether	ug/L	50	54.2	108	54-137	
o-Xylene	ug/L	50	53.4	107	70-130	
Toluene	ug/L	50	53.7	107	80-126	
4-Bromofluorobenzene (S)	%			102	70-130	
Dibromofluoromethane (S)	%			101	70-130	
Toluene-d8 (S)	%			105	70-130	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1945141 1945142

Parameter	Units	MS		MSD		MS		MSD		% Rec		Max RPD	RPD Qual
		40195702005	Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	% Rec	MSD % Rec	Limits	RPD		
Benzene	ug/L	<0.25	50	50	51.4	51.4	103	103	70-130	0	20		
Ethylbenzene	ug/L	<0.22	50	50	54.3	57.7	109	115	80-125	6	20		
m&p-Xylene	ug/L	<0.47	100	100	109	118	109	118	70-130	8	20		
Methyl-tert-butyl ether	ug/L	<1.2	50	50	55.7	57.9	111	116	51-145	4	20		
o-Xylene	ug/L	<0.26	50	50	56.0	57.7	112	115	70-130	3	20		
Toluene	ug/L	<0.17	50	50	53.5	58.8	107	118	80-131	9	20		
4-Bromofluorobenzene (S)	%						100	104	70-130				
Dibromofluoromethane (S)	%						103	103	70-130				

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## QUALITY CONTROL DATA

Project: 5619 KAREN'S KORNER  
 Pace Project No.: 40195699

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:			1945141	1945142								
Parameter	Units	Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			40195702005	Spike Conc.								
Toluene-d8 (S)	%						103	109	70-130			

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## QUALIFIERS

Project: 5619 KAREN'S KORNER  
Pace Project No.: 40195699

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### DEFINITIONS

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

ND - Not Detected at or above LOD.

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

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

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay  
PASI-M Pace Analytical Services - Minneapolis

### ANALYTE QUALIFIERS

MN	The reporting limit has been raised in accordance with Minnesota Statutes 4740.2100 Subpart 8. C, D. Reporting Limit Evaluation Rule.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 5619 KAREN'S KORNER  
Pace Project No.: 40195699

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40195699008	POTABLE	EPA 524.2	635041		
40195699001	MW2	EPA 8260	334876		
40195699002	MW3	EPA 8260	334876		
40195699003	MW4R	EPA 8260	334876		
40195699004	MW5	EPA 8260	334876		
40195699005	MW6	EPA 8260	334876		
40195699006	MW7	EPA 8260	334876		
40195699007	PZ1	EPA 8260	334876		

### REPORT OF LABORATORY ANALYSIS

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(Please Print Clearly)

Company Name:	PEI
Branch/Location:	
Project Contact:	DAVID LARSEN
Phone:	715-675-9784
Project Number:	5619
Project Name:	Karen's Koenker
Project State:	WI
Sampled By (Print):	Davey's General
Sampled By (Sign):	
PO #:	
Regulatory Program:	ACFA

**UPPER MIDWEST REGION**

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

Page 1 of

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**CHAIN OF CUSTODY**

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

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

Y/N

N N

B

J

Analysis Requested

 Pace/N  
DW/UTC

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

**Data Package Options**

(billable)

 EPA Level III EPA Level IV**MS/MSD** On your sample  
(billable) NOT needed on  
your sample**Matrix Codes**
 A = Air W = Water  
 B = Biota DW = Drinking Water  
 C = Charcoal GW = Ground Water  
 O = Oil SW = Surface Water  
 S = Soil WW = Waste Water  
 SI = Sludge WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION			MATRIX
		DATE	TIME		
001	MW2	9-12-9	10:00	GW	
002	MW3		9:55		
002	MW4R		10:25		
004	MW5		10:07		
005	MW6		9:55		
006	MW7		9:30		
007	P21		10:35		
008	POTABLE		10:29	DW	X

**Rush Turnaround Time Requested - Prelims**

(Rush TAT subject to approval/surcharge)

Date Needed:

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

Email #1: \_\_\_\_\_

Email #2: \_\_\_\_\_

Telephone: \_\_\_\_\_

Fax: \_\_\_\_\_

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

Relinquished By:

Relinquished By:

Relinquished By:

Relinquished By:

Relinquished By:

Relinquished By:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Received By:

Received By:

Received By:

Received By:

Received By:

Received By:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

PACE Project No.

40195219

Receipt Temp = 20 °C

Sample Receipt pH

OK / Adjusted

Cooler Custody Seal

Present / Not Present  
Intact / Not Intact

Version 6.0 06/14/06

ORIGINAL

# Sample Preservation Receipt Form

Client Name: REI

Project #

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

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

Lab Lot# of pH paper:

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

Initial when completed:

Date/  
Time:

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

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

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

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



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

### Sample Condition Upon Receipt Form (SCUR)

Project #:

WO# : 40195699

Client Name: REI

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

Tracking #: 21830391-2

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  noCustody Seal on Samples Present:  yes  no Seals intact:  yes  noPacking Material:  Bubble Wrap  Bubble Bags  None  OtherThermometer Used SR - NA Type of Ice:  Wet  Blue  Dry  None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr. 20 /Corr:

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

Temp should be above freezing to 6°C.

Biota Samples may be received at ≤ 0°C.

Person examining contents:

Date: 9/21/19

Initials: QAD

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2. mail, invoice, page # <span style="float: right;">9/21/19</span>
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time: - VOA Samples frozen upon receipt	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume: For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used: -Pace Containers Used: -Pace IR Containers Used:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	9.
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12. 002 time 1010, 004 time 1010 W <span style="float: right;">9/21/19</span>
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

## Client Notification/ Resolution:

If checked, see attached form for additional comments 

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

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

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

Project Manager Review:	Date: 9/23/19
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## **APPENDIX C**

### **VAPOR INTRUSION DOCUMENTATION**



## Dave Larsen

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**From:** Stoltz, Carrie R - DNR <Carrie.Stoltz@wisconsin.gov>  
**Sent:** Friday, September 6, 2019 8:48 AM  
**To:** Dave Larsen  
**Subject:** FW: VI sampling ?-Karen's Korner  
**Attachments:** 20190904071237384.pdf

FYI, please see below. If there are no preferential pathways then there are no VI issues

**We are committed to service excellence.**

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Carrie Stoltz  
Phone (715)365-8942  
Carrie.Stoltz@Wisconsin.gov

**From:** Borski, Jennifer - DNR <Jennifer.Borski@wisconsin.gov>  
**Sent:** Friday, September 06, 2019 8:20 AM  
**To:** Stoltz, Carrie R - DNR <Carrie.Stoltz@wisconsin.gov>  
**Cc:** Hunt, John T - DNR <JohnT.Hunt@wisconsin.gov>  
**Subject:** FW: VI sampling ?-Karen's Korner

Carrie,

Thank you for sending this data and discussing the site with me this morning. The screening guidelines for PVOCS are shown on Figure 3b of RR-800. According to the data provided, it appears there is no residual soil contamination and the residual groundwater contamination (benzene) is just slightly above the ES away from the building. Based on this information, this site screens out under our current guidelines and a vapor investigation is not necessary.

Let me know if you have further questions.

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Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Jennifer Borski  
Vapor Intrusion Team Leader / Hydrogeologist  
Remediation & Redevelopment Program / Environmental Management Division  
Wisconsin Department of Natural Resources  
625 E. County Road Y, STE 700  
Oshkosh, WI 54901-9731  
Phone: (920) 424-7887  
Cell Phone: (920) 360-0853  
[jennifer.borski@wisconsin.gov](mailto:jennifer.borski@wisconsin.gov)



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**From:** Stoltz, Carrie R - DNR <Carrie.Stoltz@wisconsin.gov>  
**Sent:** Wednesday, September 4, 2019 11:00 AM

**To:** Borski, Jennifer - DNR <[Jennifer.Borski@wisconsin.gov](mailto:Jennifer.Borski@wisconsin.gov)>

**Subject:** VI sampling ?-Karen's Korner

Hi Jenna, I have a question on VI sampling for Karen's Korner (03-16-544587) in Douglas County- petroleum contamination. The latest report I have is from 2014. According to REI the basement floor in the former bar is ½ concrete and ½ dirt. There is no walls between the concrete and dirt floors. This area of the building is the closest to the former tanks. The house is also connected to the former bar building and has a full-basement. Based on the results (attached) from 2013, would it be possible to just perform indoor air sampling in the bar basement only? GW flow is away from the building. MW-3 and PZ-1 results show little to no detects and MW-4R was hot before the excavation however, last sampling that I have is from 2013. I have closure meeting on Thursday from 9:30 to noon and am in Friday from 6:30 to 3:30PM. Thanks, Carrie

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Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Carrie Stoltz  
Hydrogeologist-Remediation and Redevelopment, AWARE Division  
Wisconsin Department of Natural Resources  
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Fax: (715)365-8932  
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