



January 17, 2019

Wisconsin Department of Natural Resources
Attn: Ms. Carrie Stoltz
107 Sutliff Avenue
Rhineland, WI 54501



Subject:

Update Report
Lou John Appraisal
300 N Keller Avenue
Amery, WI
BRRTS #03-49-514936
PECFA #54001-1026-00

Dear Ms. Stoltz:

Enclosed is the Update Report for the above referenced site. This report is specific to the completion of the approved remedial action, injection of granulated carbon, monitoring well installation and a single post remedial groundwater sampling event.

Please call me with questions or comments toll free at 877-734-7745 or contact me electronically at dlarsen@reiengineering.com.

Sincerely,
REI Engineering, Inc

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

Enclosure

CC: Haley Appraisal, LLC., Attn: Mr. Pat Haley, 333 30th Ave, Clear Lake, WI 54005



RESPONSIVE. EFFICIENT. INNOVATIVE.

4080 N. 20th Avenue Wausau, WI 54401
715-675-9784 REIengineering.com



REI

**CIVIL & ENVIRONMENTAL
ENGINEERING, SURVEYING**

UPDATE REPORT

**LOU JOHN APPRAISAL
AMERY, WISCONSIN**

**WDNR BRRTS #03-49-514936
PECFA #54001-1026-00
REI PROJECT #6190**



**COMPREHENSIVE
SERVICES WITH
PRACTICAL
SOLUTIONS**

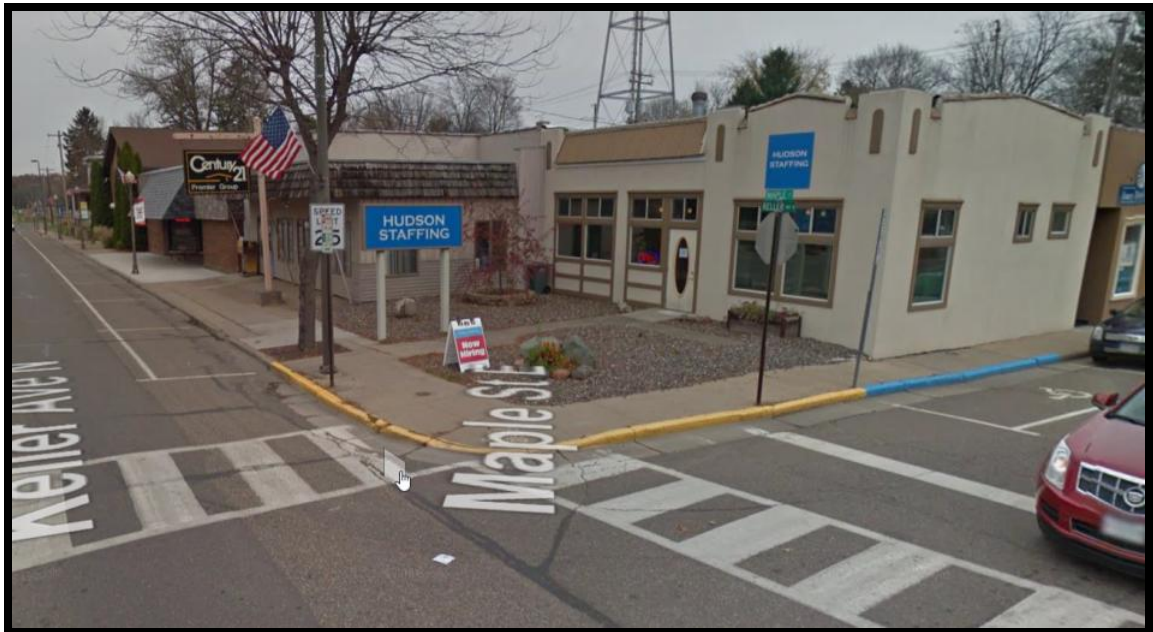


UPDATE REPORT

**LOU JOHN APPRAISAL
300 N KELLER AVENUE
AMERY, WI 54001**

**BRRTS #03-49-514936
PECFA #54001-1026-00**

REI #6190



PREPARED FOR:

**Haley Appraisal, LLC.
Attn: Mr. Pat Haley
333 30th Avenue
Clear Lake, WI 54005**

JANUARY 2019

UPDATE REPORT

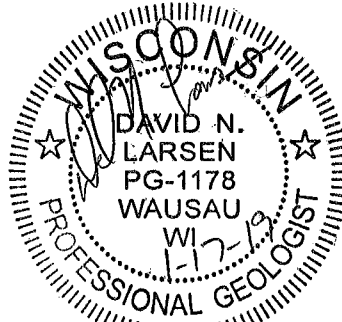
**LOU JOHN APPRAISAL
300 N KELLER AVENUE
AMERY, WI 54001**

**BRRTS #03-49-514936
PECFA #54001-1026-00**

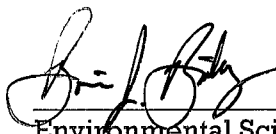
REI #6190

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 our study of the site and were arrived at in accordance with accepted hydrogeologic and engineering practices at this time and location.

"I, David Larsen, hereby certify that I am a registered Professional Geologist in the state of Wisconsin as defined in Wisconsin Statutes Chapter 470.01. I also certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), 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."



"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."


Environmental Scientist

1-17-19
Date

TABLE OF CONTENTS

- 1.0 Introduction
 - 1.1 Purpose of Report
- 2.0 Summary of Work
 - 2.1 Carbon Based Injection
 - 2.1.1 Carbon Based Injection – Proposed Scope of Services
 - 2.1.2 Carbon Based Injection – Completed Scope of Services
 - 2.2 Groundwater Monitoring and Analytical Results
- 3.0 Conclusions and Recommendations

LIST OF TABLES

- Table 1 Depth to Water and Water Table Elevations
- Tables 2a-n Summary of Groundwater Analytical Results

LIST OF FIGURES

- Figure 1 Site Location Map
- Figure 2 Site Map
- Figure 3 Groundwater Flow Direction (12-11-2018)

LIST OF APPENDICES

- Appendix A Carbon Injection Summary Report
- Appendix B Borehole Abandonment Forms
- Appendix C Carbon Injection Photographs
- Appendix D Laboratory Analytical Reports

UPDATE REPORT

**LOU JOHN APPRAISAL
300 N KELLER AVENUE
AMERY, WI 54001**

**BRRTS #03-49-514936
PECFA #54001-1026-00**

REI #6190

1.0 INTRODUCTION

REI is providing an Update Report for the former Lou John Appraisal site. The site is located in the SE $\frac{1}{4}$, SW $\frac{1}{4}$, Section 28, Township 33N, Range 16W, City of Amery, Polk County, Wisconsin (Figure 1). The Wisconsin Transverse Mercator (WTM) coordinates for the site are 334865, 540526.

1.1 Purpose of Report

This report presents the results of the completed remedial response action and continued post remedial groundwater monitoring was performed at the former Lou John Appraisal site.

The property was previously used as a gas station and soil and groundwater related petroleum contamination has been identified beneath the surface. The site is currently operated as Hudson Staffing. The site layout as well as all soil and groundwater sampling points are presented on Figure 2.

2.0 SUMMARY OF WORK

2.1 Carbon Based Injection

Between October 15-18, 2018, REI was on site to oversee the proposed carbon-based injection scope of services. Geologic Restoration, PLLC, of Pineville, North Carolina mobilized to the site with a CleanInject® injection trailer and Gestra

Engineering, Inc. of Milwaukee, WI was subcontracted to provide Geoprobe services.

2.1.1 Carbon Based Injection – Proposed Scope of Services

A total of nine (9) injection borings were proposed to be completed for this project. Each boring would be advanced using traditional Geoprobe methodologies. The injections were proposed starting at a depth of six (6) feet below land surface (bls) and terminate at a depth of eighteen (18) feet bls. Injections were to be completed every two (2) feet, with a total of seven (7) injection intervals per boring. A total of 5,040 pounds of carbon was proposed to be injected into the subsurface at the Lou John Appraisal site. The carbon injectate (GR-320-IRC™) is typically mixed at a 1:1 ratio with water onsite prior to injection into the subsurface.

2.1.2 Carbon Based Injection – Completed Scope of Services

A total of ten (10) injection borings were completed and two (2) were terminated at a depth less than eighteen (18) feet bls. Carbon was injected into each of the intervals as proposed unless formation pressure was too great or when carbon slurry daylighted at the surface. The injection borings were completed to depths ranging from six to eighteen (6-18) feet bls. Carbon injection probe CIP9 was completed to a depth of twelve (12) feet bls before daylighting of the carbon slurry required the injection to be terminated. The previous eight (8) borings (CIP1-CIP8) were each advanced to the target depth of eighteen (18) feet bls. Carbon injection probe CIP10 was advanced to inject the remaining carbon that was not able to be injected as initially proposed. Additionally, REI had approximately 250 pounds of extra carbon and received WDNR project manager permission to inject the extra carbon into the Lou John Appraisal site. A total of 5,300 pounds of carbon was injected into the subsurface on this project.

One of the negative side effects of the carbon injection process is the displacement of the existing formation water by the carbon slurry. Approximately 2,600 gallons of water and 5,300 pounds of carbon were injected into the subsurface. While injecting below the water table, the carbon slurry will displace the groundwater it is being

injected into. The displaced water was likely responsible for the detections observed in the groundwater collected from MW2 on December 11, 2018.

Figure 2 presents the locations of the completed carbon injection borings. A breakdown of the boring specific injection intervals is provided in Appendix A. Borehole abandonment forms are included in Appendix B. Photographs of the carbon injection process are included in Appendix C. Overall the completion of the proposed carbon injection scope of services went as planned and minimal daylighting occurred.

2.2 Groundwater Monitoring and Analytical Results

Groundwater monitoring well AAMW7 was the only well to report the presence of petroleum compounds above NR 140.10 Groundwater Quality Enforcement Standard (ES) limits prior to the completion of the carbon injection scope of services.

REI personnel were onsite on December 11, 2018 to complete post injection groundwater sampling events at all wells. Depth to water and water level elevations are reported in Table 1. Groundwater samples were submitted to Pace Analytical, Green Bay, Wisconsin for analysis of PVOC and naphthalene compounds. Groundwater analytical results are summarized in Tables 2a-n. The complete laboratory analytical reports are included as Appendix D.

Carbon injection was completed in October 2018 and REI sampled the wells in December 2018. Comparison of pre and post injection samples for each well is discussed below:

MW1: was historically non-detect for all analyzed parameters and remained non-detect following carbon injection.

MW2: historically had low level detections and lab qualified results, post injection detections may be due to displacement of formation water during injection activities. Additional groundwater sampling is anticipated to document reduction in contaminant concentrations.

MW3: other than the first sampling event, MW3 was historically non-detect for all analyzed parameters, and remained non-detect following carbon injection.

AAMW6: was historically non-detect for all analyzed parameters and remained non-detect following carbon injection.

AAMW7: has history of persistent LNAPL in well. While LNAPL was still observed in well following injection, the dissolved phase contamination appears to be reducing. Additional sampling will be required to develop post injection contaminant trends.

Figure 3 is a water table contour map for the December 11, 2018 groundwater sampling event. Groundwater is shown flowing from the east to the west and is consistent with historical groundwater flow directions.

3.0 CONCLUSIONS AND RECOMMENDATIONS

The degree and extent of the groundwater contaminant plume appears to be adequately defined. While LNAPL remains in AAMW7 post injection, the subsurface injection of the activated carbon should result in a reduction in the dissolved phase petroleum concentrations in the groundwater. The injection area was limited to the immediate vicinity of the former tank bed area. For the purposes of this investigation, the primary focus will be the reduction in groundwater contaminant concentrations near the former tank bed area. If the carbon based injectate was properly installed, there should be a noticeable reduction in the contaminant loading that was occurring beneath the former tank bed. This reduction first should be observed in groundwater contaminant concentrations at well AAMW7.

REI is recommending additional groundwater sampling be completed to adequately demonstrate the effectiveness of the carbon based injectate. REI is recommending the completion of the approved quarterly groundwater sampling for PVOC and naphthalene compounds.

Table 1
Depth to Water and Water Table Elevations
Lou John Appraisal
Amery, Wisconsin

Depth to Water (feet) below Reference Elevation

Date	MW1	MW2	MW3	AAMW1R	AAMW2R	AAMW5	AAMW6	AAMW7	AAMW8	AAMW9	AAMW16	AAMW17	AAMW18	AAMW19
7/21/2015	8.10	8.41	8.71	10.37	9.31	11.58	8.45	8.80	9.64	9.72	11.71	12.87	11.84	9.73
10/12/2015			8.71											
4/13/2016	7.84	8.14	8.72		9.10		8.22				11.59			
6/27/2016	8.08	8.37	8.87		9.24			8.93						
9/21/2017	8.16	8.44	8.96	10.43	9.39	Abandoned	8.52	9.18	Abandoned	Abandoned	11.87	Abandoned	Abandoned	Abandoned
12/11/2018	8.52	8.77	9.45				8.76	8.34						

Measuring Point Elevations

Elevations referenced to a U.S.G.S. Benchmark (feet MSL)

Initial Survey	1,074.58	1,074.65	1,074.00	1,076.21	1,075.21	1,074.40	1,074.23	1,074.71	1,075.48	1,075.56	1,075.62	1,078.54	1,077.53	1,075.62
Ground Surface Elevation	1,074.82	1,075.04	1,074.35	1,076.56	1,075.72	1,074.64	1,074.73	1,075.00	1,075.90	1,075.83	1,075.67	1,078.73	1,077.64	1,075.67

Depth to Water (feet) below Ground Surface

Average	8.38	8.82	9.29	10.75	9.77	11.82	8.99	9.10	10.06	9.99	11.77	13.06	11.95	9.78
Maximum	8.76	9.16	9.80	10.78	9.90	11.82	9.26	9.47	10.06	9.99	11.92	13.06	11.95	9.78
Minimum	8.08	8.53	9.06	10.72	9.61	11.82	8.72	8.63	10.06	9.99	11.64	13.06	11.95	9.78
Range	0.68	0.63	0.74	0.06	0.29	0.00	0.54	0.84	0.00	0.00	0.28	0.00	0.00	0.00

Water Level Elevation (feet MSL)

Date	MW1	MW2	MW3	AAMW1R	AAMW2R	AAMW5	AAMW6	AAMW7	AAMW8	AAMW9	AAMW16	AAMW17	AAMW18	AAMW19
7/21/2015	1,066.48	1,066.24		1,065.84	1,065.90	1,062.82	1,065.78	1,065.91	1,065.84	1,065.84	1,063.91	1,065.67	1,065.69	1,065.89
10/12/2015														
4/13/2016	1,066.74	1,066.51	1,065.28		1,066.11		1,066.01				1,064.03			
6/27/2016	1,066.50	1,066.28	1,065.13		1,065.97			1,065.78						
9/21/2017	1,066.42	1,066.21	1,065.04	1,065.78	1,065.82		1,065.71	1,065.53			1,063.75			
12/11/2018	1,066.06	1,065.88	1,064.55				1,065.47	1,066.37						

Free Product in well =

Table 2a
Summary of Groundwater Analytical Results
MW1

Lou John Appraisal
Amery, Wisconsin

Detected VOC Parameters	ES	PAL	Date ->		4/13/2016	6/27/2016	9/21/2017	Oct 2018	12/11/2018
			Units						
Benzene	5	0.5	µg/l	< 0.50	< 0.40	< 0.40	< 0.40	< 0.31	
Toluene	800	160	µg/l	< 0.50	< 0.39	< 0.39	< 0.39	< 0.49	
Ethylbenzene	700	140	µg/l	< 0.50	< 0.39	< 0.39	< 0.39	< 0.33	
Xylenes (mixed isomers)	2,000	400	µg/l	< 1.0	< 0.80	< 0.80	< 0.80	< 0.66	
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.17	< 0.48	< 0.48	< 0.48	< 0.32	
Trimethylbenzenes (mixed isomers)	480	96	µg/l	0.76 ^j	< 0.42	< 0.42	< 0.42	< 0.34	
Naphthalene	100	10	µg/l	< 2.5	< 0.42	< 0.42	< 0.42	< 0.51	
Field Measurements									
Temperature			°F	NA	NA	NA	63.21	53.2	
Conductivity			µS/cm	NA	NA	NA	587	2,667	
pH				NA	NA	NA	7.59	7.45	
Dissolved Oxygen			mg/l	NA	NA	NA	4.96	3.31	
ORP			mV	NA	NA	NA	38.4	96.1	

Notes:

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

Enforcement Standard exceeded

BOLD
<i>Italics</i>

Preventive Action Limit exceeded

NA = Not Analyzed

NS = Not Sampled

^j = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation

Table 2b
Summary of Groundwater Analytical Results
MW2

Lou John Appraisal
Amery, Wisconsin

Detected VOC Parameters	ES	PAL	Date ->		6/27/2016	9/21/2017	Oct 2018	12/11/2018
			Units					
Benzene	5	0.5	< 0.50	< 0.40	< 0.40	< 0.40		< 0.31
Toluene	800	160	< 0.50	0.40 ^J	< 0.39	< 0.39		< 0.49
Ethylbenzene	700	140	0.64 ^J	< 0.39	< 0.39	0.93 ^J		2.0
Xylenes (mixed isomers)	2,000	400	2.31 ^J	0.80 ^J	< 0.80	2.23 ^J		3.8
Methyl tert-Butyl Ether (MTBE)	60	12	< 0.17	< 0.48	< 0.48	< 0.48		0.43 ^J
Trimethylbenzenes (mixed isomers)	480	96	33	< 0.42	< 0.42	2.2	Carbon Injection Completed	0.90 ^J
Naphthalene	100	10	< 2.5	< 0.42	< 0.42	0.51 ^J		< 0.51
Field Measurements								
Temperature			°F	NA	NA	63.16		52.9
Conductivity			µS/cm	NA	NA	451		769
pH			NA	NA	NA	7.39		7.21
Dissolved Oxygen			mg/l	NA	NA	1.40		0.35
ORP			mV	NA	NA	4.00		86.3

Notes:

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

Enforcement Standard exceeded

Preventive Action Limit exceeded

NA = Not Analyzed

NS = Not Sampled

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

BOLD
<i>Italics</i>

Table 2c
Summary of Groundwater Analytical Results
MW3

Lou John Appraisal
Amery, Wisconsin

Detected VOC Parameters	ES	PAL	Date ->		4/13/2016	6/27/2016	9/21/2017	Oct 2018	12/11/2018
			Units						
Benzene	5	0.5	µg/l		< 0.40	< 0.40	< 0.40		< 0.31
Toluene	800	160	µg/l	10.9	< 0.39	< 0.39	< 0.39		< 0.49
Ethylbenzene	700	140	µg/l	20.0	< 0.39	< 0.39	< 0.39		< 0.33
Xylenes (mixed isomers)	2,000	400	µg/l	1.5	< 0.39	< 0.39	< 0.39		< 0.66
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	5.7	< 0.80	< 0.80	< 0.80		< 0.32
Trimethylbenzenes (mixed isomers)	480	96	µg/l	< 0.17	< 0.48	< 0.48	< 0.48		< 0.34
Naphthalene	100	10	µg/l	< 0.50	< 0.42	< 0.42	< 0.42	Carbon Injection Completed	< 0.51
Field Measurements									
Temperature			°F	NA	NA	NA	NA		51.5
Conductivity			µS/cm	NA	NA	NA	NA		2,522
pH				NA	NA	NA	NA		6.89
Dissolved Oxygen			mg/l	NA	NA	NA	NA		2.42
ORP			mV	NA	NA	NA	NA		187.9

Notes:

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

Enforcement Standard exceeded

BOLD
<i>Italics</i>

Preventive Action Limit exceeded

NA = Not Analyzed

NS = Not Sampled

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

Table 2d
Summary of Groundwater Analytical Results
AAMW1R

Lou John Appraisal
Amery, Wisconsin

Detected VOC Parameters	ES	PAL	Date ->		6/27/2016	9/21/2017	Oct 2018	12/11/2018
			7/21/2015	4/13/2016				
Benzene	5	0.5	µg/l	2.0				
Toluene	800	160	µg/l	15.9				
Ethylbenzene	700	140	µg/l	141				Well Not Sampled
Xylenes (mixed isomers)	2,000	400	µg/l	275				Well Not Sampled
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	0.91 ^J				Well Not Sampled
Trimethylbenzenes (mixed isomers)	480	96	µg/l	133.5				
Naphthalene	100	10	µg/l	16.9				Carbon Injection Completed

Notes:

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

Enforcement Standard exceeded
<i>Preventive Action Limit exceeded</i>

NA = Not Analyzed

NS = Not Sampled

^J = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation

Table 2e
Summary of Groundwater Analytical Results
AAMW2R
Lou John Appraisal
Amery, Wisconsin

Detected VOC Parameters	ES	PAL	Date ->		6/27/2016	9/21/2017	Oct 2018	12/11/2018
			7/21/2015	4/13/2016				
Benzene	5	0.5	µg/l	254				
Toluene	800	160	µg/l	7,310				
Ethylbenzene	700	140	µg/l	2,770				Well Not Sampled
Xylenes (mixed isomers)	2,000	400	µg/l	9,920				Carbon Injection Completed
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 48.5				
Trimethylbenzenes (mixed isomers)	480	96	µg/l	1,599				
Naphthalene	100	10	µg/l	380				

Notes:

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

Enforcement Standard exceeded	BOLD
Preventive Action Limit exceeded	<i>Italics</i>

NA = Not Analyzed

NS = Not Sampled

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

Table 2f
Summary of Groundwater Analytical Results
AAMW5
Lou John Appraisal
Amery, Wisconsin

Detected VOC Parameters	ES	PAL	Date ->		4/13/2016	6/27/2016	9/21/2017	10/31/2017
			7/21/2015	Units				
Benzene	5	0.5		µg/l	30.6			
Toluene	800	160		µg/l	0.54 ^j			
Ethylbenzene	700	140		µg/l	0.77 ^j			
Xylenes (mixed isomers)	2,000	400		µg/l	8.8			
Methyl tert-Butyl Ether (MTBE)	60	12		µg/l	< 0.48			
Trimethylbenzenes (mixed isomers)	480	96		µg/l	3.2			
Naphthalene	100	10		µg/l	0.82 ^j			
						Well Not Sampled	Well Not Sampled	Well Abandoned

Notes:

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

Enforcement Standard exceeded
<i>Preventive Action Limit exceeded</i>

NA = Not Analyzed

NS = Not Sampled

^j = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation

Table 2g
Summary of Groundwater Analytical Results
AAMW6
Lou John Appraisal
Amery, Wisconsin

Detected VOC Parameters	ES	PAL	Date ->		6/27/2016	9/21/2017	Oct 2018	12/11/2018
			7/21/2015	4/13/2016				
Benzene	5	0.5	µg/l	< 0.40		< 0.40		< 0.31
Toluene	800	160	µg/l	< 0.39		< 0.39		< 0.49
Ethylbenzene	700	140	µg/l	< 0.39		< 0.39		< 0.33
Xylenes (mixed isomers)	2,000	400	µg/l	< 0.80		< 0.80		< 0.66
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.48		< 0.48		< 0.32
Trimethylbenzenes (mixed isomers)	480	96	µg/l	< 0.42		< 0.42		< 0.34
Naphthalene	100	10	µg/l	< 0.42		< 0.42		< 0.51
Field Measurements					Well Not Sampled			
Temperature			°F	NA		61.95		51.4
Conductivity			µS/cm	NA		7,979		7,965
pH				NA		6.76		6.76
Dissolved Oxygen			mg/l	NA		1.18		0.22
ORP			mV	NA		89.4		133.4

Notes:

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

Enforcement Standard exceeded **BOLD**
Preventive Action Limit exceeded *Italics*

NA = Not Analyzed

NS = Not Sampled

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

Table 2h
Summary of Groundwater Analytical Results
AAMW7
Lou John Appraisal
Amery, Wisconsin

Detected VOC Parameters	ES	PAL	Date ->		6/27/2016	9/21/2017	Oct 2018	12/11/2018
			Units					
Benzene	5	0.5	µg/l		733	971		34.7
Toluene	800	160	µg/l	1,050	893	1,200		<i>213</i>
Ethylbenzene	700	140	µg/l	360	329	474		134
Xylenes (mixed isomers)	2,000	400	µg/l	2,095	<i>1,735</i>	2,241		<i>1,471</i>
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.48	< 4.8	< 9.7		17
Trimethylbenzenes (mixed isomers)	480	96	µg/l	676		795	Carbon Injection Completed	480
Naphthalene	100	10	µg/l	219	177	247		<i>24.3</i>
Field Measurements								
Temperature			°F	NA	NA	NA		NA
Conductivity			µS/cm	NA	NA	NA		NA
pH				NA	NA	NA		NA
Dissolved Oxygen			mg/l	NA	NA	NA		NA
ORP			mV	NA	NA	NA		NA

Notes:

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

Enforcement Standard exceeded

BOLD
<i>Italics</i>

Preventive Action Limit exceeded

NA = Not Analyzed

NS = Not Sampled

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

Table 2i
Summary of Groundwater Analytical Results
AAMW8
Lou John Appraisal
Amery, Wisconsin

Detected VOC Parameters	ES	PAL	Date ->		4/13/2016	6/27/2016	9/21/2017	10/31/2017
			7/21/2015	Units				
Benzene	5	0.5	µg/l	1270				
Toluene	800	160	µg/l	84.9				
Ethylbenzene	700	140	µg/l	482				
Xylenes (mixed isomers)	2,000	400	µg/l	1,899	Well Not Sampled	Well Not Sampled	Well Not Sampled	Well Abandoned
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 4.8				
Trimethylbenzenes (mixed isomers)	480	96	µg/l	296.8				
Naphthalene	100	10	µg/l	56.3				

Notes:

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

Enforcement Standard exceeded	BOLD
Preventive Action Limit exceeded	<i>Italics</i>

NA = Not Analyzed

NS = Not Sampled

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

Table 2j
Summary of Groundwater Analytical Results
AAMW9
Lou John Appraisal
Amery, Wisconsin

Detected VOC Parameters	ES	PAL	Date ->		4/13/2016	6/27/2016	9/21/2017	10/31/2017
			Units					
Benzene	5	0.5	µg/l					
Toluene	800	160	µg/l	376				
Ethylbenzene	700	140	µg/l	28.7				
Xylenes (mixed isomers)	2,000	400	µg/l	233		Well Not Sampled		Well Abandoned
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	390.2				
Trimethylbenzenes (mixed isomers)	480	96	µg/l	5.0				
Naphthalene	100	10	µg/l	158.3				
				31				

Notes:

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

Enforcement Standard exceeded	BOLD
Preventive Action Limit exceeded	<i>Italics</i>

NA = Not Analyzed

NS = Not Sampled

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

Table 21
Summary of Groundwater Analytical Results
AAMW17
Lou John Appraisal
Amery, Wisconsin

Detected VOC Parameters	ES	PAL	Date ->		4/13/2016	6/27/2016	9/21/2017	10/31/2017
			7/21/2015	Units				
Benzene	5	0.5	< 0.40	µg/l				
Toluene	800	160	< 0.39	µg/l				
Ethylbenzene	700	140	< 0.39	µg/l				
Xylenes (mixed isomers)	2,000	400	< 0.80	µg/l	Well Not Sampled	Well Not Sampled	Well Not Sampled	Well Abandoned
Methyl tert-Butyl Ether (MTBE)	60	12	< 0.48	µg/l				
Trimethylbenzenes (mixed isomers)	480	96	< 0.42	µg/l				
Naphthalene	100	10	< 0.42	µg/l				

Notes:

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

Enforcement Standard exceeded **BOLD**
Preventive Action Limit exceeded *Italics*

NA = Not Analyzed

NS = Not Sampled

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

Table 2m
Summary of Groundwater Analytical Results
AAMW18
Lou John Appraisal
Amery, Wisconsin

Detected VOC Parameters	ES	PAL	Date ->		4/13/2016	6/27/2016	9/21/2017	10/31/2017
			7/21/2015	Units				
Benzene	5	0.5	< 0.40					
Toluene	800	160	< 0.39					
Ethylbenzene	700	140	< 0.39					
Xylenes (mixed isomers)	2,000	400	< 0.80		Well Not Sampled	Well Not Sampled	Well Not Sampled	Well Abandoned
Methyl tert-Butyl Ether (MTBE)	60	12	< 0.48					
Trimethylbenzenes (mixed isomers)	480	96	< 0.42					
Naphthalene	100	10	< 0.42					

Notes:

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

Enforcement Standard exceeded	BOLD
Preventive Action Limit exceeded	<i>Italics</i>

NA = Not Analyzed

NS = Not Sampled

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

Table 2n
Summary of Groundwater Analytical Results
AAMW19
Lou John Appraisal
Amery, Wisconsin

Detected VOC Parameters	ES	PAL	Date ->		4/13/2016	6/27/2016	9/21/2017	10/31/2017
			7/21/2015	Units				
Benzene	5	0.5	< 0.40	µg/l				
Toluene	800	160	< 0.39	µg/l				
Ethylbenzene	700	140	< 0.39	µg/l				
Xylenes (mixed isomers)	2,000	400	< 0.80	µg/l	Well Not Sampled	Well Not Sampled	Well Not Sampled	Well Abandoned
Methyl tert-Butyl Ether (MTBE)	60	12	< 0.48	µg/l				
Trimethylbenzenes (mixed isomers)	480	96	< 0.42	µg/l				
Naphthalene	100	10	< 0.42	µg/l				

Notes:

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

BOLD
<i>Italics</i>

Enforcement Standard exceeded

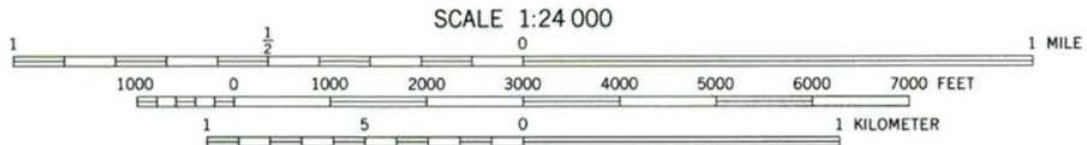
Preventive Action Limit exceeded

NA = Not Analyzed

NS = Not Sampled

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

DRAWING FILE: P:\6100-6199\6190 Lou JOHN - AMERY\DWG\6190-VICN.DWG LAYOUT: VICN PLOTTED: JAN 15, 2019 - 5:08PM PLOTTED BY: MATTY



CONTOUR INTERVAL 10 FEET
 NATIONAL GEODETIC VERTICAL DATUM OF 1929



UTM GRID AND 1978 MAGNETIC NORTH
 DECLINATION AT CENTER OF SHEET

AMERY, WIS.
 SE/4 BALSAM LAKE 15' QUADRANGLE
 N4515-W9215/7.5

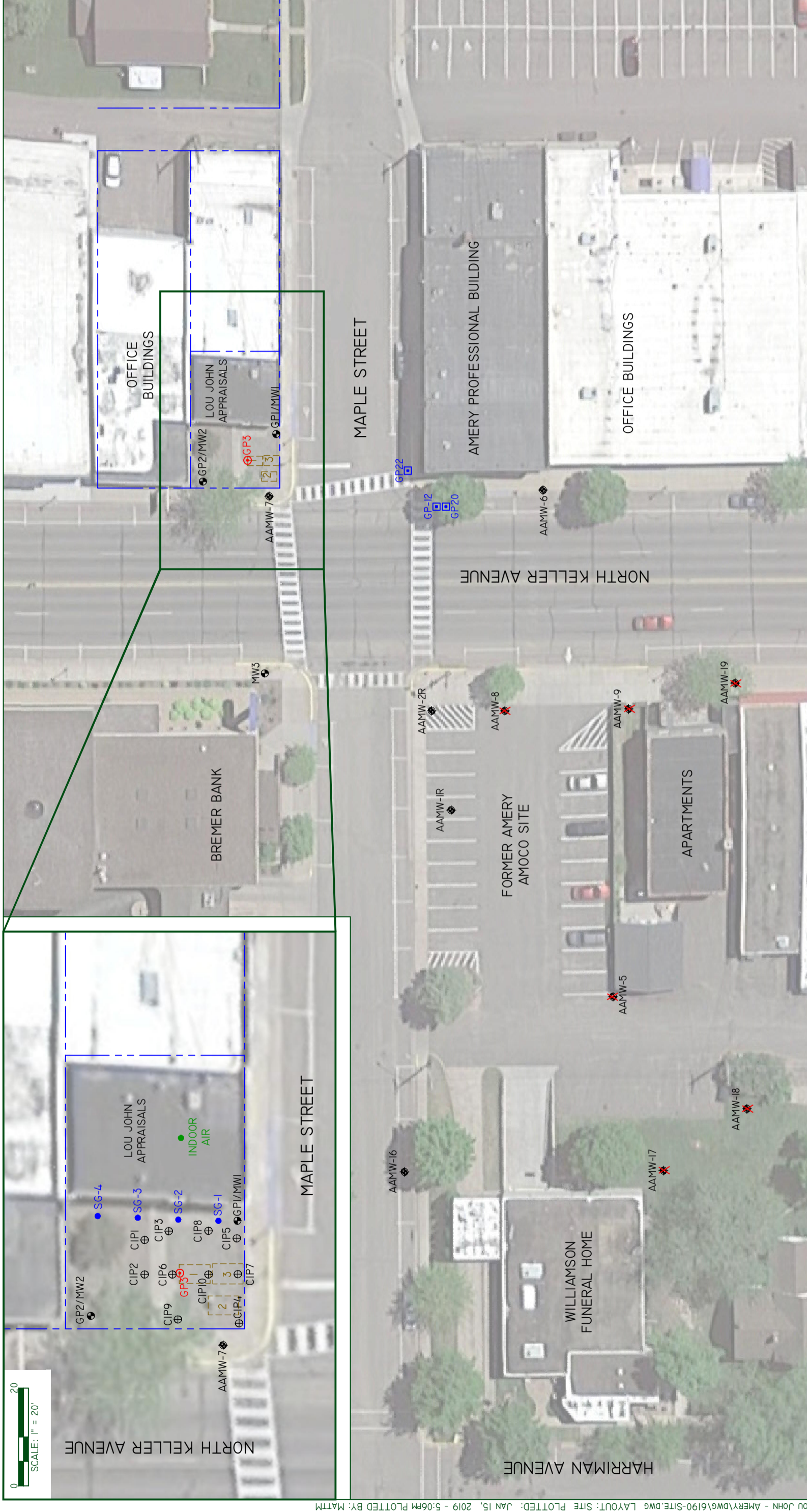
1978

REI Engineering, INC.

LOU JOHN APPRAISAL SERVICE
 300 N. KELLER AVENUE
 AMERY, WISCONSIN

FIGURE 1 : SITE LOCATION MAP

PROJECT NO.	6190	DRAWN BY:	TAW	DATE:	1/15/2019
-------------	------	-----------	-----	-------	-----------



LEGEND

- AMERY AMOCO MONITORING WELLS BY OTHERS
- AMERY AMOCO MONITORING WELLS BY OTHERS (ABANDONED)
- GEOPROBE SOIL BORING BY OTHERS
- GEOPROBE SOIL BORING
- CARBON INJECTION PROBE
- SOIL GAS PROBE LOCATIONS
- INDOOR AIR SAMPLE LOCATION

TANK 1 560 GALLON LEADED GASOLINE - REMOVED 8/27/98
 TANK 2 1,000 GALLON LEADED GASOLINE - REMOVED 8/27/98
 TANK 3 560 GALLON LEADED GASOLINE - REMOVED 8/27/98

NORTH
 MAPLE STREET
 NORTH KELLER AVENUE
 HARRIMAN AVENUE

BREMER BANK
 LOU JOHN APPRAISALS
 AMERY PROFESSIONAL BUILDING
 FORMER AMERY AMOCO SITE
 WILLIAMSON FUNERAL HOME
 OFFICE BUILDINGS
 OFFICE BUILDINGS
 APARTMENTS

SCALE: 1" = 20'

SCALE: 1" = 40'

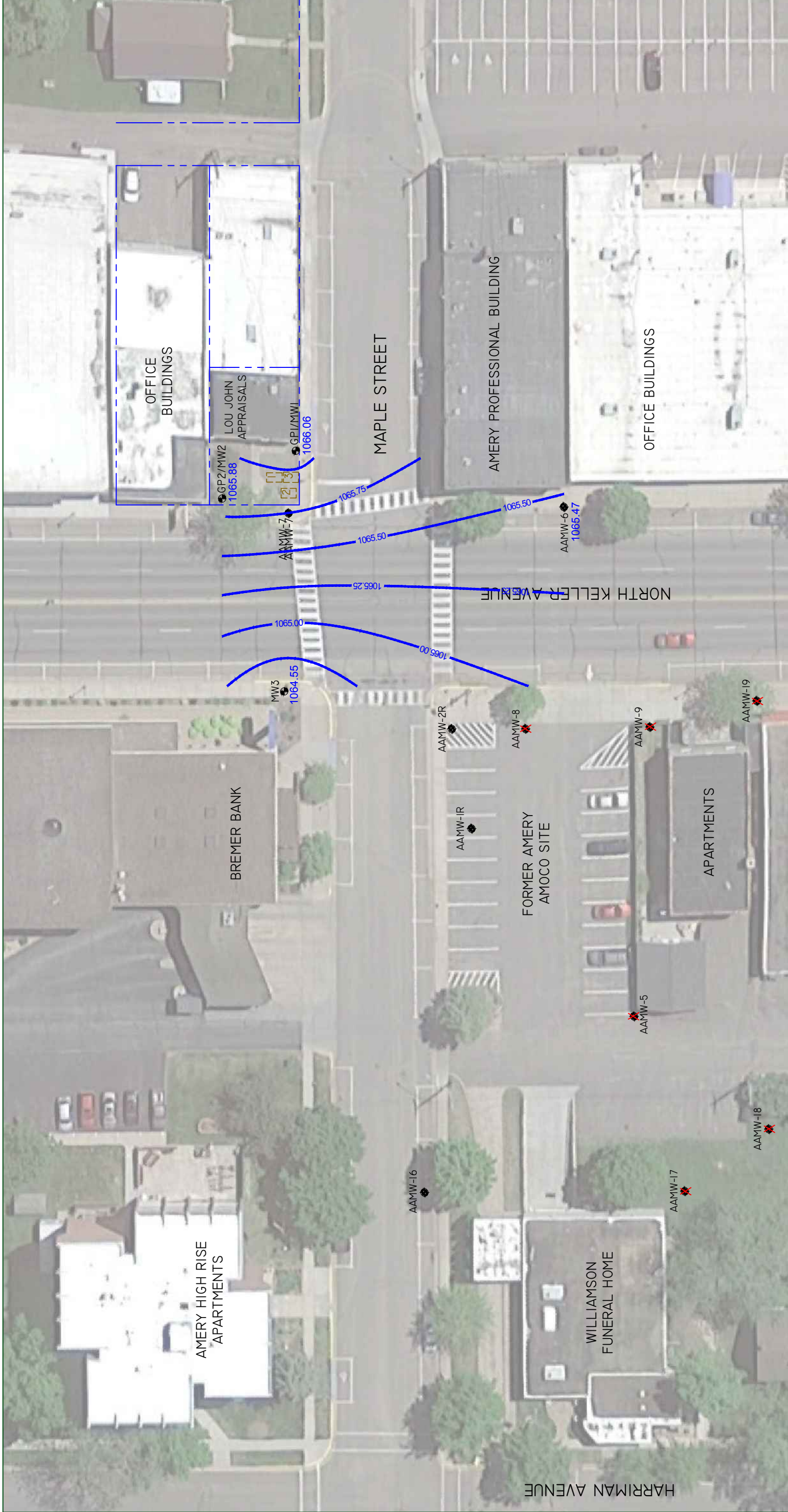
REI Engineering, INC.

LOU JOHN APPRAISAL SERVICE
 300 N. KELLER AVENUE
 AMERY, WISCONSIN

REI
 CIVIL & ENVIRONMENTAL
 ENGINEERING, SURVEYING

FIGURE 2 : SITE MAP

PROJECT No. 6190 DRAWN BY: MCM DATE: 1/15/2019



LEGEND

0 40
SCALE: 1" = 40'

— 1064.4 — GROUNDWATER CONTOUR LINE (INTERVAL - 0.2 FT. - MSL)

● AMERY AMOCO MONITORING WELLS BY OTHERS

● MONITORING WELL

● AMERY AMOCO MONITORING WELLS BY OTHERS (ABANDONED)

TANK 1 560 GALLON LEADED GASOLINE - REMOVED 8/27/98

TANK 2 1,000 GALLON LEADED GASOLINE - REMOVED 8/27/98

TANK 3 560 GALLON LEADED GASOLINE - REMOVED 8/27/98



- NOTES:**
- GROUNDWATER ELEVATION DATA IS PRESENTED IN FEET MEAN SEA LEVEL.
 - GROUNDWATER FLOW DIRECTION MAP IS BASED ON ELEVATION DATA COLLECTED DURING THE DECEMBER II, 2018 SAMPLING EVENT.
 - MONITORING WELL AA-MW7 WAS NOT USED IN THE CALCULATION OF THE GROUNDWATER FLOW DIRECTION DUE TO THE PRESENCE OF FREE PRODUCT IN THE WELL DURING THE SAMPLING EVENT.

REI
CIVIL & ENVIRONMENTAL
ENGINEERING, SURVEYING

LOU JOHN APPRAISAL SERVICE
300 N. KELLER AVENUE
AMERY, WISCONSIN

FIGURE 3 : GROUNDWATER FLOW DIRECTION (12/11/2018)

PROJECT No. 6190	DRAWN BY: MCM	DATE: 1/16/2018
---------------------	------------------	--------------------

APPENDIX A

CARBON INJECTION SUMMARY REPORT



GEOLOGIC RESTORATION, PLLC

GR18-006: Lou John

Mix #	Water (lbs)	Slurry (lbs)	Carbon (lbs)	Slurry / Carbon	Carbon Ratio	Date
1	1200	1500	300	5.00	2.00	10/15/2018
2	1600	2000	400	5.00	2.00	10/15/2018
3	1200	1500	300	5.00	2.00	10/15/2018
4	1600	2000	400	5.00	2.00	10/16/2018
5	1600	2000	400	5.00	2.00	10/16/2018
6	1600	2000	400	5.00	2.00	10/16/2018
7	1600	2000	400	5.00	2.00	10/16/2018
8	1600	2000	400	5.00	2.00	10/17/2018
9	1600	2000	400	5.00	2.00	10/17/2018
10	1600	2000	400	5.00	2.00	10/17/2018
11	1600	2000	400	5.00	2.00	10/17/2018
12	1600	2000	400	5.00	2.00	10/17/2018
13	700	850	150	5.67	1.71	10/17/2018
14	800	950	150	6.33	1.50	10/17/2018
15	1600	2000	400	5.00	2.00	10/18/2018
TOTAL CARBON			5300 lbs			

Injection #	Mix #	Interval (feet)	Carbon (lbs)	PSIi	PSIf	Date	Time	TOTAL Carbon Injected
1	1	6	40.00	40	40	10/15/2018	2:20:00 PM	560 lbs
	1	6	40.00	40	40	10/15/2018	2:25:00 PM	
	1	8	20.00	40	40	10/15/2018	2:28:00 PM	
	1	8	40.00	40	40	10/15/2018	2:32:00 PM	
	1	8	20.00	40	40	10/15/2018	2:34:00 PM	
	1	10	20.00	40	40	10/15/2018	2:38:00 PM	
	1	10	40.00	40	40	10/15/2018	2:41:00 PM	
	1	10	20.00	40	40	10/15/2018	2:46:00 PM	
	1	12	40.00	60	50	10/15/2018	2:52:00 PM	
	1	12	20.00	40	40	10/15/2018	2:58:00 PM	
	2	12	20.00	40	60	10/15/2018	3:14:00 PM	
	2	14	40.00	40	40	10/15/2018	3:20:00 PM	
	2	14	40.00	40	40	10/15/2018	3:25:00 PM	
	2	16	40.00	40	50	10/15/2018	3:30:00 PM	
	2	16	40.00	40	40	10/15/2018	3:36:00 PM	
	2	18	40.00	60	50	10/15/2018	3:43:00 PM	
	2	18	40.00	50	50	10/15/2018	3:48:00 PM	
	2	2	6	20.00	60	50	10/15/2018	
2		6	40.00	40	40	10/15/2018	4:19:00 PM	
2		6	20.00	40	40	10/15/2018	4:23:00 PM	
2		8	20.00	200	40	10/15/2018	4:28:00 PM	
2		8	40.00	40	40	10/15/2018	4:35:00 PM	
3		10	20.00	60	50	10/15/2018	5:06:00 PM	
3		10	14.00	50	50	10/15/2018	5:10:00 PM	
3		12	16.00	60	50	10/15/2018	5:20:00 PM	
3		14	4.00	60	40	10/15/2018	5:30:00 PM	
3		18	4.00	60	40	10/15/2018	5:32:00 PM	
3	3	6	20.00	50	60	10/15/2018	5:50:00 PM	562 lbs
	3	6	20.00	60	60	10/15/2018	5:52:00 PM	
	3	6	20.00	60	70	10/15/2018	5:54:00 PM	
	3	6	20.00	70	60	10/15/2018	5:56:00 PM	
	3	8	20.00	60	50	10/15/2018	6:02:00 PM	
	3	8	20.00	50	50	10/15/2018	6:04:00 PM	
	3	8	22.00	50	50	10/15/2018	6:06:00 PM	
	3	8	20.00	50	50	10/15/2018	6:09:00 PM	
	3	10	20.00	50	50	10/15/2018	6:12:00 PM	
	3	10	20.00	50	50	10/15/2018	6:13:00 PM	
	3	10	20.00	50	50	10/15/2018	6:15:00 PM	
	3	10	20.00	50	50	10/15/2018	6:18:00 PM	
	4	12	40.00	40	40	10/16/2018	8:33:00 AM	
	4	12	20.00	100	100	10/16/2018	8:37:00 AM	
	4	12	20.00	100	100	10/16/2018	8:40:00 AM	
	4	14	20.00	40	40	10/16/2018	8:43:00 AM	
4	14	20.00	40	40	10/16/2018	8:45:00 AM		

4	14	20.00	40	40	10/16/2018	8:47:00 AM
4	14	20.00	40	40	10/16/2018	8:49:00 AM
4	16	20.00	50	80	10/16/2018	8:54:00 AM
4	16	20.00	100	110	10/16/2018	8:57:00 AM
4	16	20.00	100	120	10/16/2018	8:59:00 AM
4	16	20.00	120	100	10/16/2018	9:03:00 AM
4	18	20.00	80	60	10/16/2018	9:12:00 AM
4	18	20.00	40	40	10/16/2018	9:16:00 AM
4	18	20.00	40	40	10/16/2018	9:18:00 AM
4	18	20.00	40	40	10/16/2018	9:20:00 AM

4

4	6	20.00	50	40	10/16/2018	9:50:00 AM
4	6	10.00	40	40	10/16/2018	9:56:00 AM
4	6	10.00	40	40	10/16/2018	10:10:00 AM
4	6	6.00	40	40	10/16/2018	10:13:00 AM
4	8	20.00	40	40	10/16/2018	10:18:00 AM
4	8	14.00	40	40	10/16/2018	10:20:00 AM
5	8	20.00	50	50	10/16/2018	10:38:00 AM
5	8	20.00	50	50	10/16/2018	10:44:00 AM
5	10	20.00	40	40	10/16/2018	10:51:00 AM
5	10	20.00	50	50	10/16/2018	10:56:00 AM
5	10	20.00	50	50	10/16/2018	11:06:00 AM
5	10	20.00	40	40	10/16/2018	11:19:00 AM
5	12	18.00	50	50	10/16/2018	11:26:00 AM
5	12	20.00	40	40	10/16/2018	11:33:00 AM
5	16	20.00	40	40	10/16/2018	11:40:00 AM
5	16	20.00	40	40	10/16/2018	11:46:00 AM
5	16	20.00	40	40	10/16/2018	11:54:00 AM
5	16	20.00	50	60	10/16/2018	12:04:00 PM
5	18	22.00	50	50	10/16/2018	12:09:00 PM
5	18	20.00	50	50	10/16/2018	12:20:00 PM
5	18	20.00	50	50	10/16/2018	12:27:00 PM
5	18	20.00	50	50	10/16/2018	12:29:00 PM

400 lbs

5

5	6	20.00	40	40	10/16/2018	12:56:00 PM
5	6	20.00	40	40	10/16/2018	12:59:00 PM
5	6	20.00	40	40	10/16/2018	1:00:00 PM
5	6	20.00	40	40	10/16/2018	1:01:00 PM
6	8	20.00	50	50	10/16/2018	2:15:00 PM
6	8	20.00	50	50	10/16/2018	2:18:00 PM
6	8	20.00	50	50	10/16/2018	2:22:00 PM
6	8	20.00	60	50	10/16/2018	2:25:00 PM
6	10	20.00	50	50	10/16/2018	2:27:00 PM
6	10	20.00	50	50	10/16/2018	2:29:00 PM
6	10	20.00	50	50	10/16/2018	2:31:00 PM
6	10	20.00	50	50	10/16/2018	2:35:00 PM
6	12	20.00	50	50	10/16/2018	2:38:00 PM
6	12	20.00	50	50	10/16/2018	2:41:00 PM
6	12	20.00	50	50	10/16/2018	2:44:00 PM

560 lbs

	6	12	20.00	50	50	10/16/2018	2:47:00 PM	
	6	14	20.00	50	50	10/16/2018	2:50:00 PM	
	6	14	20.00	50	50	10/16/2018	2:53:00 PM	
	6	14	20.00	50	50	10/16/2018	2:55:00 PM	
	6	14	20.00	50	50	10/16/2018	2:58:00 PM	
	6	16	20.00	80	50	10/16/2018	3:01:00 PM	
	6	16	20.00	120	100	10/16/2018	3:03:00 PM	
	6	16	20.00	100	100	10/16/2018	3:05:00 PM	
	6	16	20.00	100	100	10/16/2018	3:08:00 PM	
	7	18	20.00	50	50	10/16/2018	3:37:00 PM	
	7	18	20.00	50	50	10/16/2018	3:38:00 PM	
	7	18	20.00	50	50	10/16/2018	3:41:00 PM	
	7	18	20.00	50	50	10/16/2018	3:42:00 PM	
6	7	6	20.00	50	50	10/16/2018	4:00:00 PM	320 lbs
	7	6	20.00	50	50	10/16/2018	4:04:00 PM	
	7	8	14.00	50	50	10/16/2018	4:14:00 PM	
	7	8	10.00	50	50	10/16/2018	4:18:00 PM	
	7	8	10.00	50	50	10/16/2018	4:21:00 PM	
	7	10	8.00	60	60	10/16/2018	4:26:00 PM	
	7	10	10.00	60	60	10/16/2018	4:30:00 PM	
	7	10	8.00	60	60	10/16/2018	4:34:00 PM	
	7	14	8.00	60	60	10/16/2018	4:39:00 PM	
	7	18	212.00	0	0	10/16/2018	5:08:00 PM	
7	8	6	12.00	60	60	10/17/2018	9:03:00 AM	400 lbs
	8	8	20.00	80	80	10/17/2018	9:05:00 AM	
	8	8	20.00	60	60	10/17/2018	9:08:00 AM	
	8	8	20.00	60	60	10/17/2018	9:09:00 AM	
	8	8	20.00	60	60	10/17/2018	9:11:00 AM	
	8	10	20.00	60	60	10/17/2018	9:17:00 AM	
	8	14	14.00	0	0	10/17/2018	9:28:00 AM	
	8	18	134.00	210	200	10/17/2018	9:43:00 AM	
	8	18	46.00	60	60	10/17/2018	9:55:00 AM	
	8	18	94.00	0	0	10/17/2018	10:01:00 AM	
	9	6	20.00	50	50	10/17/2018	10:23:00 AM	
	9	6	20.00	50	50	10/17/2018	10:25:00 AM	
	9	6	20.00	50	50	10/17/2018	10:26:00 AM	
	9	6	20.00	50	50	10/17/2018	10:28:00 AM	
	9	8	20.00	60	60	10/17/2018	10:30:00 AM	
	9	8	20.00	60	60	10/17/2018	10:33:00 AM	
	9	8	20.00	60	60	10/17/2018	10:35:00 AM	
	9	8	20.00	60	60	10/17/2018	10:36:00 AM	
	9	10	20.00	60	60	10/17/2018	10:40:00 AM	
	9	10	20.00	60	60	10/17/2018	10:41:00 AM	
	9	10	20.00	60	60	10/17/2018	10:43:00 AM	
	9	10	20.00	60	60	10/17/2018	10:45:00 AM	
	9	10	40.00	0	0	10/17/2018	10:50:00 AM	
	9	12	20.00	60	60	10/17/2018	10:53:00 AM	

8	9	12	20.00	60	60	10/17/2018	10:55:00 AM	800 lbs
	9	12	20.00	60	60	10/17/2018	10:58:00 AM	
	9	12	20.00	60	60	10/17/2018	11:01:00 AM	
	9	12	40.00	0	0	10/17/2018	11:08:00 AM	
	10	14	20.00	60	60	10/17/2018	11:23:00 AM	
	10	14	20.00	60	60	10/17/2018	11:24:00 AM	
	10	14	20.00	60	60	10/17/2018	11:26:00 AM	
	10	14	20.00	60	60	10/17/2018	11:28:00 AM	
	10	14	40.00	0	0	10/17/2018	11:31:00 AM	
	10	16	20.00	60	60	10/17/2018	11:34:00 AM	
	10	16	20.00	120	120	10/17/2018	11:37:00 AM	
	10	16	20.00	120	120	10/17/2018	11:39:00 AM	
	10	16	20.00	130	130	10/17/2018	11:41:00 AM	
	10	16	40.00	0	0	10/17/2018	11:46:00 AM	
	10	18	20.00	60	60	10/17/2018	11:53:00 AM	
	10	18	20.00	60	60	10/17/2018	11:54:00 AM	
	10	18	20.00	60	60	10/17/2018	11:55:00 AM	
	10	18	20.00	60	60	10/17/2018	11:58:00 AM	
10	18	80.00	0	0	10/17/2018	12:03:00 PM		
9	11	6	20.00	60	60	10/17/2018	1:09:00 PM	800 lbs
	11	6	12.00	60	60	10/17/2018	1:12:00 PM	
	11	8	4.00	70	60	10/17/2018	1:16:00 PM	
	11	10	44.00	60	60	10/17/2018	1:28:00 PM	
	11	10	20.00	60	60	10/17/2018	1:31:00 PM	
	11	10	10.00	60	60	10/17/2018	1:43:00 PM	
	11	14	4.00	60	60	10/17/2018	1:51:00 PM	
	11	14	10.00	60	60	10/17/2018	2:01:00 PM	
	11	18	36.00	60	60	10/17/2018	2:12:00 PM	
	11	18	6.00	60	60	10/17/2018	2:18:00 PM	
	11	18	234.00	0	0	10/17/2018	2:32:00 PM	
	12	12	78.00	0	0	10/17/2018	3:00:00 PM	
	12	12	46.00	0	0	10/17/2018	3:06:00 PM	
	12	12	36.00	0	0	10/17/2018	3:09:00 PM	
	12	12	44.00	0	0	10/17/2018	3:16:00 PM	
	12	12	62.00	0	0	10/17/2018	3:22:00 PM	
	12	12	54.00	0	0	10/17/2018	3:36:00 PM	
	12	12	80.00	0	0	10/17/2018	3:45:00 PM	
10	13	6	114.71	0	0	10/17/2018	4:40:00 PM	700 lbs
	13	8	35.29	0	0	10/17/2018	5:00:00 PM	
	14	8	150.00	0	0	10/17/2018	6:01:00 PM	
	15	10	98.00	0	0	10/18/2018	9:02:00 AM	
	15	10	12.00	0	0	10/18/2018	9:11:00 AM	
	15	12	182.00	0	0	10/18/2018	9:53:00 AM	

15

14

108.00

0

0

10/18/2018 10:19:00 AM

TOTAL CARBON INJECTED

5300 lbs

APPENDIX B

BOREHOLE ABANDONMENT FORMS



Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 251, 269, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only of Fill and Seal

Route to:

Drinking Water

Watershed/Wastewater

Remediation/Redevelopment

Waste Management

Other: _____

1. Well Location Information **2. Facility / Owner Information**

County: **POLK** WI Unique Well # of Removed Well: **CIP1** Hicap #: _____

Latitude / Longitude (Degrees and Minutes): _____ 'N
_____ 'W

Method Code (see instructions): _____

Section: **28** Township: **33 N** Range: **16** E W

Well Street Address: **300 N. Keller Ave**

Well City, Village or Town: **Amery** Well ZIP Code: **54001-**

Subdivision Name: _____ Lot #: _____

Facility Name: **Lou John**

Facility ID (FID or PWS): _____

License/Permit/Monitoring #: _____

Original Well Owner: **Lou John**

Present Well Owner: **Lou John**

Mailing Address of Present Owner: **300 N. Keller Ave.**

City of Present Owner: **Amery** State: **WI** ZIP Code: **54001-**

Reason For Removal From Service: **Temporary Borehole** WI Unique Well # of Replacement Well: _____

3. Well / Drillhole / Borehole Information

Monitoring Well
 Water Well
 Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): **10/15/2018**

If a Well Construction Report is available, please attach: _____

Construction Type:

Drilled Driven (Sandpoint) Dug
 Other (specify): **Hydraulic/Direct Push**

Formation Type:

Unconsolidated Formation Bedrock

Total Well Depth From Ground Surface (ft.): **18** Casing Diameter (in.): _____

Lower Drillhole Diameter (in.): **2.25** Casing Depth (ft.): _____

Was well annular space grouted? Yes No Unknown

If yes, to what depth (feet)? _____ Depth to Water (feet): _____

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed? Yes No N/A

Liner(s) removed? Yes No N/A

Screen removed? Yes No N/A

Casing left in place? Yes No N/A

Was casing cut off below surface? Yes No N/A

Did sealing material rise to surface? Yes No N/A

Did material settle after 24 hours? Yes No N/A

If yes, was hole retopped? Yes No N/A

If bentonite chips were used, were they hydrated with water from a known safe source? Yes No N/A

Required Method of Placing Sealing Material

Conductor Pipe-Gravity Conductor Pipe-Pumped
 Screened & Poured (Bentonite Chips) Other (Explain): _____

Sealing Materials

Neat Cement Grout Clay-Sand Slurry (11 lb./gal. wt.)
 Sand-Cement (Concrete) Grout Bentonite-Sand Slurry " "
 Concrete Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

Bentonite Chips Bentonite - Cement Grout
 Granular Bentonite Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole	From (ft.)	To (ft.)	Sacks Sealant	Mix Ratio
Bentonite Chips	Surface	18	0.5	

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing: **Gestra Engineering** License #: _____ Date of Filling & Sealing (mm/dd/yyyy): **10/15/2018**

Street or Route: **191 W. Edgerton Ave.** Telephone Number: **(414) 933-7444** Comments: _____

City: **Milwaukee** State: **WI** ZIP Code: **53207-** Signature of Person Doing Work: _____ Date Signed: **10/24/2018**

DNR Use Only

Date Received: _____ Noted By: _____

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code, in accordance with chs. 251, 269, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only of Fill and Seal

Route to:

Drinking Water Watershed/Wastewater Remediation/Redevelopment

Waste Management Other: _____

1. Well Location Information **2. Facility / Owner Information**


County POLK	WI Unique Well # of Removed Well ____ CIP2 ____	Hicap #	Facility Name Lou John
Latitude / Longitude (Degrees and Minutes)	Method Code (see instructions)		Facility ID (FID or PWS)
____ ° ____ ' ____ " N			License/Permit/Monitoring #
____ ° ____ ' ____ " W			Original Well Owner Lou John
1/4 SE 1/4 SW	Section 28	Township 33 N	Range 16 <input type="checkbox"/> E <input checked="" type="checkbox"/> W
or Gov't Lot #	Present Well Owner Lou John		
Well Street Address 300 N. Keller Ave	Mailing Address of Present Owner 300 N. Keller Ave.		
Well City, Village or Town Amery	Well ZIP Code 54001-		City of Present Owner Amery
Subdivision Name	Lot #	State Wi	ZIP Code 54001-

3. Well / Drillhole / Borehole Information **4. Pump, Liner, Screen, Casing & Sealing Material**

Reason For Removal From Service Temporary Borehole	WI Unique Well # of Replacement Well	Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
3. Well / Drillhole / Borehole Information		Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy) 10/15/2018	Screen removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Water Well	If a Well Construction Report is available, please attach.	Casing left in place? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<input checked="" type="checkbox"/> Borehole / Drillhole		Was casing cut off below surface? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Construction Type:		Did sealing material rise to surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
<input type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug		Did material settle after 24 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
<input checked="" type="checkbox"/> Other (specify): Hydraulic/Direct Push		If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Formation Type:		If bentonite chips were used, were they hydrated with water from a known safe source? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
<input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		Required Method of Placing Sealing Material
Total Well Depth From Ground Surface (ft.) 18	Casing Diameter (in.)	<input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped
Lower Drillhole Diameter (in.) 2.25	Casing Depth (ft.)	<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		Sealing Materials
If yes, to what depth (feet)?	Depth to Water (feet)	<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Clay-Sand Slurry (11 lb./gal. wt.)
		<input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Bentonite-Sand Slurry " "
		<input type="checkbox"/> Concrete <input checked="" type="checkbox"/> Bentonite Chips
		For Monitoring Wells and Monitoring Well Boreholes Only:
		<input type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout
		<input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole	From (ft.)	To (ft.)	Sacks Sealant	Mix Ratio
Bentonite Chips	Surface	18	0.5	

6. Comments

7. Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Filling & Sealing Gestra Engineering	License #	Date of Filling & Sealing (mm/dd/yyyy) 10/15/2018	Date Received	Noted By	
Street or Route 191 W. Edgerton Ave.	Telephone Number (414) 933-7444	Comments			
City Milwaukee	State WI	ZIP Code 53207-	Signature of Person Doing Work 	Date Signed 10/24/2018	

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 283, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only of Fill and Seal

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

1. Well Location Information				2. Facility / Owner Information			
County POLK		WI Unique Well # of Removed Well _____ CIP3 _____		Facility Name Lou John		Facility ID (FID or PWS)	
Latitude / Longitude (Degrees and Minutes) _____ ' N _____ ' W		Method Code (see instructions)		License/Permit/Monitoring #		Original Well Owner Lou John	
1/4 SE 1/4 SW		Section 28	Township 33 N	Range 16	<input type="checkbox"/> E <input checked="" type="checkbox"/> W	Present Well Owner Lou John	
Well Street Address 300 N. Keller Ave				Mailing Address of Present Owner 300 N. Keller Ave.			
Well City, Village or Town Amery				Well ZIP Code 54001-			
Subdivision Name				City of Present Owner Amery		State Wi	ZIP Code 54001-

Reason For Removal From Service Temporary Borehole		WI Unique Well # of Replacement Well _____		4. Pump, Liner, Screen, Casing & Sealing Material			
<input type="checkbox"/> Monitoring Well		Original Construction Date (mm/dd/yyyy) 10/16/2018		Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
<input type="checkbox"/> Water Well		If a Well Construction Report is available, please attach.		Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
<input checked="" type="checkbox"/> Borehole / Drillhole				Screen removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Construction Type: <input type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug				Casing left in place? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
<input checked="" type="checkbox"/> Other (specify): Hydraulic/Direct Push				Was casing cut off below surface? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock				Did sealing material rise to surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
Total Well Depth From Ground Surface (ft.) 18		Casing Diameter (in.)		Did material settle after 24 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A			
Lower Drillhole Diameter (in.) 2.25		Casing Depth (ft.)		If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown				If bentonite chips were used, were they hydrated with water from a known safe source? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
If yes, to what depth (feet)?				Required Method of Placing Sealing Material			
Depth to Water (feet)				<input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped			
				<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____			
				Sealing Materials			
				<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Clay-Sand Slurry (11 lb./gal. wt.)			
				<input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Bentonite-Sand Slurry " "			
				<input type="checkbox"/> Concrete <input checked="" type="checkbox"/> Bentonite Chips			
				For Monitoring Wells and Monitoring Well Boreholes Only:			
				<input type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout			
				<input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry			

5. Material Used To Fill Well / Drillhole	From (ft.)	To (ft.)	Sacks Sealant	Mix Ratio
Bentonite Chips	Surface	18	0.5	

6. Comments

7. Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Filling & Sealing Gestra Engineering		License #	Date of Filling & Sealing (mm/dd/yyyy) 10/16/2018	Date Received	Noted By
Street or Route 191 W. Edgerton Ave.			Telephone Number (414) 933-7444	Comments	
City Milwaukee	State WI	ZIP Code 53207-	Signature of Person Doing Work <i>[Signature]</i>	Date Signed 10/24/2018	

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

Notice: Completion of this report is required by chs. 160, 221, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 251, 269, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only of Fill and Seal

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

1. Well Location Information **2. Facility / Owner Information**

County POLK		WI Unique Well # of Removed Well CIP4		Hicap #		Facility Name Lou John	
Latitude / Longitude (Degrees and Minutes) _____ 'N _____ 'W		Method Code (see instructions)				Facility ID (FID or PWS)	
1/4 SE 1/4 SW		Section 28	Township 33 N	Range 16	<input type="checkbox"/> E <input checked="" type="checkbox"/> W	License/Permit/Monitoring #	
or Gov't Lot #		Well Street Address 300 N. Keller Ave		Original Well Owner Lou John			
Subdivision Name		Well City, Village or Town Amery		Well ZIP Code 54001-		Present Well Owner Lou John	
Reason For Removal From Service Temporary Borehole		WI Unique Well # of Replacement Well		Mailing Address of Present Owner 300 N. Keller Ave.			
3. Well / Drillhole / Borehole Information		Lot #		City of Present Owner Amery		State Wi	ZIP Code 54001-

4. Pump, Liner, Screen, Casing & Sealing Material


Original Construction Date (mm/dd/yyyy) 10/16/2018		Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
If a Well Construction Report is available, please attach.		Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Construction Type:		Screen removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input type="checkbox"/> Monitoring Well		Casing left in place? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input type="checkbox"/> Water Well		Was casing cut off below surface? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input checked="" type="checkbox"/> Borehole / Drillhole		Did sealing material rise to surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
<input type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug		Did material settle after 24 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
<input checked="" type="checkbox"/> Other (specify): Hydraulic/Direct Push		If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Formation Type:		If bentonite chips were used, were they hydrated with water from a known safe source? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
<input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		Required Method of Placing Sealing Material	
Total Well Depth From Ground Surface (ft.) 18		<input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped	
Casing Diameter (in.)		<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____	
Lower Drillhole Diameter (in.) 2.25		Sealing Materials	
Casing Depth (ft.)		<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Clay-Sand Slurry (11 lb./gal. wt.)	
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		<input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Bentonite-Sand Slurry " "	
If yes, to what depth (feet)?		<input type="checkbox"/> Concrete <input checked="" type="checkbox"/> Bentonite Chips	
Depth to Water (feet)		For Monitoring Wells and Monitoring Well Boreholes Only:	
		<input type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout	
		<input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry	

5. Material Used To Fill Well / Drillhole

From (ft.)	To (ft.)	Sacks Sealant	Mix Ratio
Surface	18	0.5	

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing Gestra Engineering			License #		Date of Filling & Sealing (mm/dd/yyyy) 10/16/2018		DNR Use Only	
Street or Route 191 W. Edgerton Ave.			Telephone Number (414) 933-7444		Date Received		Noted By	
City Milwaukee			State WI		ZIP Code 53207-		Signature of Person Doing Work 	
							Date Signed 10/24/2018	

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code, in accordance with chs. 251, 269, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only of Fill and Seal


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

1. Well Location Information				2. Facility / Owner Information			
County POLK		WI Unique Well # of Removed Well CIP5		Hicap #		Facility Name Lou John	
Latitude / Longitude (Degrees and Minutes) ____ ° ____ ' ____ " N ____ ° ____ ' ____ " W				Facility ID (FID or PWS)			
Method Code (see instructions)				License/Permit/Monitoring #			
1/4 SE or Gov't Lot #		1/4 SW		Section 28		Township 33 N	
				Range 16		<input type="checkbox"/> E <input checked="" type="checkbox"/> W	
Well Street Address 300 N. Keller Ave				Original Well Owner Lou John			
Well City, Village or Town Amery				Present Well Owner Lou John			
Subdivision Name				Mailing Address of Present Owner 300 N. Keller Ave.			
Well ZIP Code 54001-				City of Present Owner Amery		State WI	
Lot #				ZIP Code 54001-			

Reason For Removal From Service Temporary Borehole		WI Unique Well # of Replacement Well		4. Pump, Liner, Screen, Casing & Sealing Material			
<input type="checkbox"/> Monitoring Well		Original Construction Date (mm/dd/yyyy) 10/16/2018		Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
<input type="checkbox"/> Water Well		If a Well Construction Report is available, please attach.		Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
<input checked="" type="checkbox"/> Borehole / Drillhole				Screen removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Construction Type: <input type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug				Casing left in place? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
<input checked="" type="checkbox"/> Other (specify): Hydraulic/Direct Push				Was casing cut off below surface? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock				Did sealing material rise to surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
Total Well Depth From Ground Surface (ft.) 18		Casing Diameter (in.)		Did material settle after 24 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A			
Lower Drillhole Diameter (in.) 2.25		Casing Depth (ft.)		If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown				If bentonite chips were used, were they hydrated with water from a known safe source? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
If yes, to what depth (feet)?				Depth to Water (feet)			
Required Method of Placing Sealing Material				<input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped			
				<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____			
Sealing Materials				<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Clay-Sand Slurry (11 lb./gal. wt.)			
				<input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Bentonite-Sand Slurry " "			
				<input type="checkbox"/> Concrete <input checked="" type="checkbox"/> Bentonite Chips			
				For Monitoring Wells and Monitoring Well Boreholes Only:			
				<input type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout			
				<input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry			

5. Material Used To Fill Well / Drillhole				From (ft.)	To (ft.)	Sacks Sealant	Mix Ratio
Bentonite Chips				Surface	18	0.5	

6. Comments

7. Supervision of Work				DNR Use Only			
Name of Person or Firm Doing Filling & Sealing Gestra Engineering		License #		Date of Filling & Sealing (mm/dd/yyyy) 10/16/2018		Date Received	
Street or Route 191 W. Edgerton Ave.				Telephone Number (414) 933-7444		Comments	
City Milwaukee		State WI		ZIP Code 53207-		Signature of Person Doing Work 	
						Date Signed 10/24/2018	

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 251, 269, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only of Fill and Seal

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

1. Well Location Information **2. Facility / Owner Information**

County POLK	WI Unique Well # of Removed Well _____ CIP6 _____	Parcel #	Facility Name Lou John
Latitude / Longitude (Degrees and Minutes) _____' ____' ____" N _____' ____' ____" W			Facility ID (FID or PWS)
Method Code (see instructions)			License/Permit/Monitoring #
1/4 SE	1/4 SW	Section 28	Township 33 N
or Gov't Lot #		Range 16	<input type="checkbox"/> E <input checked="" type="checkbox"/> W
Well Street Address 300 N. Keller Ave			
Well City, Village or Town Amery			Well ZIP Code 54001-
Subdivision Name			Lot #
Reason For Removal From Service Temporary Borehole			WI Unique Well # of Replacement Well _____


3. Well / Drillhole / Borehole Information **4. Pump, Liner, Screen, Casing & Sealing Material**

<input type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy) 10/16/2018	Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Water Well	If a Well Construction Report is available, please attach.	Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<input checked="" type="checkbox"/> Borehole / Drillhole		Screen removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Construction Type: <input type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug		Casing left in place? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<input checked="" type="checkbox"/> Other (specify): Hydraulic/Direct Push		Was casing cut off below surface? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		Did sealing material rise to surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Total Well Depth From Ground Surface (ft.) 18	Casing Diameter (in.)	Did material settle after 24 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Lower Drillhole Diameter (in.) 2.25	Casing Depth (ft.)	If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	Depth to Water (feet)	If bentonite chips were used, were they hydrated with water from a known safe source? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
If yes, to what depth (feet)?		Required Method of Placing Sealing Material
5. Material Used To Fill Well / Drillhole		<input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped
From (ft.)	To (ft.)	<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____
Bentonite Chips	Surface 18	Sealing Materials
		<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Clay-Sand Slurry (11 lb./gal. wt.)
		<input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Bentonite-Sand Slurry " "
		<input type="checkbox"/> Concrete <input checked="" type="checkbox"/> Bentonite Chips
		For Monitoring Wells and Monitoring Well Boreholes Only:
		<input type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout
		<input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry

From (ft.)	To (ft.)	Sacks Sealant	Mix Ratio
Surface	18	0.5	

6. Comments

7. Supervision of Work **DNR Use Only**

Name of Person or Firm Doing Filling & Sealing Gestra Engineering	License #	Date of Filling & Sealing (mm/dd/yyyy) 10/16/2018	Date Received	Noted By
Street or Route 191 W. Edgerton Ave.		Telephone Number (414) 933-7444	Comments	
City Milwaukee	State WI	ZIP Code 53207-	Signature of Person Doing Work 	Date Signed 10/24/2018

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 251, 269, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only of Fill and Seal

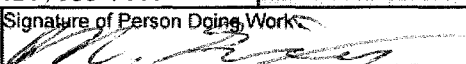
Route to:
 Drinking Water Watershed/Wastewater Remediation/Redevelopment
 Waste Management Other: _____

1. Well Location Information				2. Facility / Owner Information			
County POLK		WI Unique Well # of Removed Well _____ CIP7 _____		Facility Name Lou John		Facility ID (FID or PWS)	
Latitude / Longitude (Degrees and Minutes) ____ ° ____ ' N ____ ° ____ ' W		Method Code (see instructions)		License/Permit/Monitoring #		Original Well Owner Lou John	
1/4 SE 1/4 SW		Section 28	Township 33 N	Range 16	<input type="checkbox"/> E <input checked="" type="checkbox"/> W		Present Well Owner Lou John
Well Street Address 300 N. Keller Ave				Mailing Address of Present Owner 300 N. Keller Ave.			
Well City, Village or Town Amery				Well ZIP Code 54001-		City of Present Owner Amery	
Subdivision Name				Lot #		State WI	ZIP Code 54001-

Reason For Removal From Service Temporary Borehole		WI Unique Well # of Replacement Well _____		4. Pump, Liner, Screen, Casing & Sealing Material			
<input type="checkbox"/> Monitoring Well		Original Construction Date (mm/dd/yyyy) 10/17/2018		Pump and piping removed?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input type="checkbox"/> Water Well		If a Well Construction Report is available, please attach.		Liner(s) removed?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input checked="" type="checkbox"/> Borehole / Drillhole				Screen removed?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Construction Type:				Casing left in place?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input type="checkbox"/> Drilled		<input type="checkbox"/> Driven (Sandpoint)		Was casing cut off below surface?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input checked="" type="checkbox"/> Other (specify): Hydraulic/Direct Push				Did sealing material rise to surface?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Formation Type:		<input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		Did material settle after 24 hours?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Total Well Depth From Ground Surface (ft.) 18		Casing Diameter (in.)		If yes, was hole retopped?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Lower Drillhole Diameter (in.) 2.25		Casing Depth (ft.)		If bentonite chips were used, were they hydrated with water from a known safe source?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Was well annular space grouted?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		Required Method of Placing Sealing Material			
If yes, to what depth (feet)?		Depth to Water (feet)		<input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped			
				<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____			

5. Material Used To Fill Well / Drillhole	From (ft.)	To (ft.)	Sacks Sealant	Mix Ratio
Bentonite Chips	Surface	18	0.5	

6. Comments

7. Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Filling & Sealing Gestra Engineering		License #	Date of Filling & Sealing (mm/dd/yyyy) 10/17/2018	Date Received	Noted By
Street or Route 191 W. Edgerton Ave.			Telephone Number (414) 933-7444	Comments	
City Milwaukee	State WI	ZIP Code 53207-	Signature of Person Doing Work 	Date Signed 10/24/2018	

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 251, 269, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only of Fill and Seal

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

1. Well Location Information				2. Facility / Owner Information			
County POLK		WI Unique Well # of Removed Well CIP8		Hicap #		Facility Name Lou John	
Latitude / Longitude (Degrees and Minutes)				Facility ID (FID or PWS)			
Method Code (see instructions)				License/Permit/Monitoring #			
1/4 SE		1/4 SW		Section 28		Township 33 N	
or Gov't Lot #				Range 16		<input type="checkbox"/> E <input checked="" type="checkbox"/> W	
Well Street Address 300 N. Keller Ave				Original Well Owner Lou John			
Well City, Village or Town Amery				Present Well Owner Lou John			
Subdivision Name				Mailing Address of Present Owner 300 N. Keller Ave.			
Well ZIP Code 54001-				City of Present Owner Amery		State WI	ZIP Code 54001-

Reason For Removal From Service Temporary Borehole		WI Unique Well # of Replacement Well		4. Pump, Liner, Screen, Casing & Sealing Material			
<input type="checkbox"/> Monitoring Well		Original Construction Date (mm/dd/yyyy) 10/17/2018		Pump and piping removed?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
<input type="checkbox"/> Water Well		If a Well Construction Report is available, please attach.		Liner(s) removed?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
<input checked="" type="checkbox"/> Borehole / Drillhole				Screen removed?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
Construction Type:				Casing left in place?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
<input type="checkbox"/> Drilled		<input type="checkbox"/> Driven (Sandpoint)		Was casing cut off below surface?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
<input checked="" type="checkbox"/> Other (specify): Hydraulic/Direct Push				Did sealing material rise to surface?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Formation Type:				Did material settle after 24 hours?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<input checked="" type="checkbox"/> Unconsolidated Formation		<input type="checkbox"/> Bedrock		If yes, was hole retopped?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
Total Well Depth From Ground Surface (ft.) 18		Casing Diameter (in.)		If bentonite chips were used, were they hydrated with water from a known safe source?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Lower Drillhole Diameter (in.) 2.25		Casing Depth (ft.)		Required Method of Placing Sealing Material			
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown				<input type="checkbox"/> Conductor Pipe-Gravity		<input type="checkbox"/> Conductor Pipe-Pumped	
If yes, to what depth (feet)?				<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips)		<input type="checkbox"/> Other (Explain): _____	
Depth to Water (feet)				Sealing Materials			

5. Material Used To Fill Well / Drillhole	From (ft.)	To (ft.)	Sacks Sealant	Mix Ratio
Bentonite Chips	Surface	18	0.5	

6. Comments

7. Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Filling & Sealing Gestra Engineering		License #	Date of Filling & Sealing (mm/dd/yyyy) 10/17/2018		Date Received
Street or Route 191 W. Edgerton Ave.			Telephone Number (414) 933-7444		Noted By
City Milwaukee		State WI	ZIP Code 53207-		Comments
Signature of Person Doing Work				Date Signed 10/24/2018	

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only of Fill and Seal


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

1. Well Location Information				2. Facility / Owner Information			
County POLK		WI Unique Well # of Removed Well _____ CIP9 _____		Facility Name Lou John		Facility ID (FID or PWS)	
Latitude / Longitude (Degrees and Minutes)		Method Code (see instructions)		License/Permit/Monitoring #		Original Well Owner Lou John	
_____ ' N _____ ' W		_____		Present Well Owner Lou John		Mailing Address of Present Owner 300 N. Keller Ave.	
1/4 SE 1/4 SW		Section 28	Township 33 N	Range 16	<input type="checkbox"/> E <input checked="" type="checkbox"/> W	City of Present Owner Amery	
or Gov't Lot #		Well Street Address 300 N. Keller Ave		State WI		ZIP Code 54001-	
Well City, Village or Town Amery		Well ZIP Code 54001-		City of Present Owner Amery		State WI	
Subdivision Name		Lot #		City of Present Owner Amery		State WI	
Reason For Removal From Service Temporary Borehole		WI Unique Well # of Replacement Well _____		City of Present Owner Amery		State WI	

3. Well / Drillhole / Borehole Information				4. Pump, Liner, Screen, Casing & Sealing Material			
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input checked="" type="checkbox"/> Borehole / Drillhole		Original Construction Date (mm/dd/yyyy) 10/17/2018		Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Construction Type:		If a Well Construction Report is available, please attach.		Screen removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		Casing left in place? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input checked="" type="checkbox"/> Other (specify): Hydraulic/Direct Push				Casing cut off below surface? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		Did sealing material rise to surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Formation Type:				Did material settle after 24 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock				If bentonite chips were used, were they hydrated with water from a known safe source? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		Required Method of Placing Sealing Material	
Total Well Depth From Ground Surface (ft.) 18		Casing Diameter (in.)		<input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____		Sealing Materials	
Lower Drillhole Diameter (in.) 2.25		Casing Depth (ft.)		<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Clay-Sand Slurry (11 lb./gal. wt.) <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Bentonite-Sand Slurry " " <input type="checkbox"/> Concrete <input checked="" type="checkbox"/> Bentonite Chips		For Monitoring Wells and Monitoring Well Boreholes Only:	
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		Depth to Water (feet)		<input type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry			

5. Material Used To Fill Well / Drillhole			
From (ft.)	To (ft.)	Sacks Sealant	Mix Ratio
Surface	18	0.5	

6. Comments

7. Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Filling & Sealing Gestra Engineering		License #	Date of Filling & Sealing (mm/dd/yyyy) 10/17/2018	Date Received	Noted By
Street or Route 191 W. Edgerton Ave.		Telephone Number (414) 933-7444		Comments	
City Milwaukee	State WI	ZIP Code 53207-	Signature of Person Doing Work 	Date Signed 10/24/2018	

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only of Fill and Seal


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

1. Well Location Information				2. Facility / Owner Information			
County POLK		WI Unique Well # of Removed Well CIP10		Facility Name Lou John		Facility ID (FID or PWS)	
Latitude / Longitude (Degrees and Minutes)		Method Code (see instructions)		License/Permit/Monitoring #		Original Well Owner Lou John	
_____ ° _____ ' N _____ ° _____ ' W		Section: 28 Township: 33 N Range: 16 <input type="checkbox"/> E <input checked="" type="checkbox"/> W		Present Well Owner Lou John		Mailing Address of Present Owner 300 N. Keller Ave.	
Well Street Address 300 N. Keller Ave		Well City, Village or Town Amery		City of Present Owner Amery		State: WI ZIP Code: 54001-	
Well ZIP Code 54001-		Subdivision Name		Lot #		Reason For Removal From Service Temporary Borehole	
Well Street Address		Well City, Village or Town		Well ZIP Code		WI Unique Well # of Replacement Well	
Well City, Village or Town		Well ZIP Code		City of Present Owner		State	
Subdivision Name		Lot #		Amery		WI	
Well Street Address		Well City, Village or Town		Well ZIP Code		ZIP Code	
Well City, Village or Town		Well ZIP Code		Amery		54001-	

3. Well / Drillhole / Borehole Information				4. Pump, Liner, Screen, Casing & Sealing Material			
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input checked="" type="checkbox"/> Borehole / Drillhole		Original Construction Date (mm/dd/yyyy) 10/18/2018		Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Construction Type:		If a Well Construction Report is available, please attach.		Screen removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		Casing left in place? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input checked="" type="checkbox"/> Other (specify): Hydraulic/Direct Push				Casing cut off below surface? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		Did sealing material rise to surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Formation Type:				Did material settle after 24 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock				If bentonite chips were used, were they hydrated with water from a known safe source? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		Required Method of Placing Sealing Material	
Total Well Depth From Ground Surface (ft.) 18		Casing Diameter (in.)		<input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____		Sealing Materials	
Lower Drillhole Diameter (in.) 2.25		Casing Depth (ft.)		<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Clay-Sand Slurry (11 lb./gal. wt.) <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Bentonite-Sand Slurry " " <input type="checkbox"/> Concrete <input checked="" type="checkbox"/> Bentonite Chips		For Monitoring Wells and Monitoring Well Boreholes Only:	
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		Depth to Water (feet)		<input type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry			

5. Material Used To Fill Well / Drillhole	From (ft.)	To (ft.)	Sacks Sealant	Mix Ratio
Bentonite Chips	Surface	18	0.5	

6. Comments

7. Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Filling & Sealing Gestra Engineering		License #	Date of Filling & Sealing (mm/dd/yyyy) 10/18/2018	Date Received	Noted By
Street or Route 191 W. Edgerton Ave.			Telephone Number (414) 933-7444	Comments	
City Milwaukee		State WI	ZIP Code 53207-	Signature of Person Doing Work 	Date Signed 10/24/2018

APPENDIX C

CARBON INJECTION PHOTOGRAPHS





Pre entry site conditions and advancing carbon injection borings





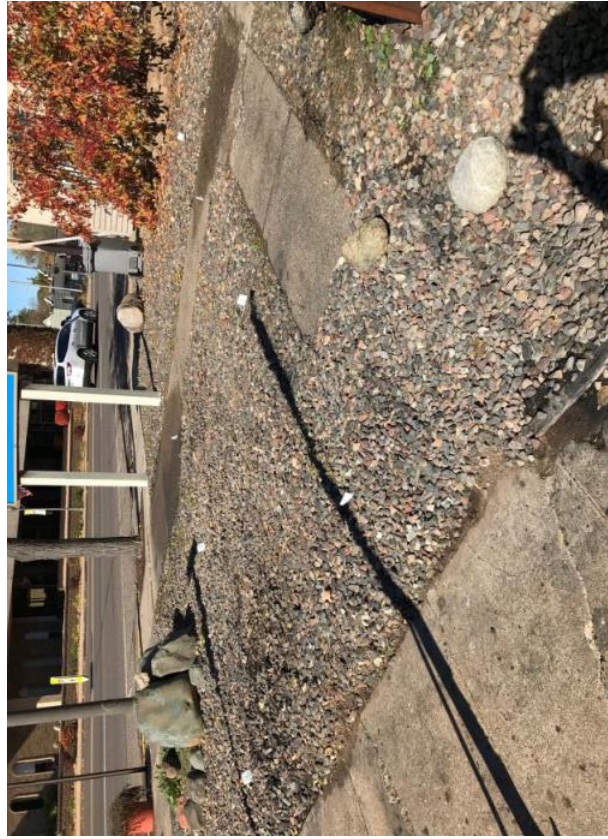
Daylighted formation water and carbon slurry



Area of daylighted formation water and carbon slurry near AAMW7



Area of daylighted formation water and carbon slurry



Site conditions following restoration efforts



APPENDIX D

LABORATORY ANALYTICAL REPORTS



December 20, 2018

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

RE: Project: 6190 LOU JOHN
Pace Project No.: 40181033

Dear DAVID LARSEN:

Enclosed are the analytical results for sample(s) received by the laboratory on December 14, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



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

Enclosures



REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: 6190 LOU JOHN

Pace Project No.: 40181033

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

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

SAMPLE SUMMARY

Project: 6190 LOU JOHN

Pace Project No.: 40181033

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40181033001	MW1	Water	12/11/18 16:30	12/14/18 09:00
40181033002	MW2	Water	12/11/18 16:45	12/14/18 09:00
40181033003	MW3	Water	12/11/18 16:50	12/14/18 09:00
40181033004	AAMW6	Water	12/11/18 17:00	12/14/18 09:00
40181033005	AAMW7	Water	12/11/18 17:05	12/14/18 09:00

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: 6190 LOU JOHN

Pace Project No.: 40181033

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40181033001	MW1	WI MOD GRO	ALD	10
40181033002	MW2	WI MOD GRO	ALD	10
40181033003	MW3	WI MOD GRO	ALD	10
40181033004	AAMW6	WI MOD GRO	ALD	10
40181033005	AAMW7	WI MOD GRO	ALD	10

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 6190 LOU JOHN

Pace Project No.: 40181033

Sample: MW1									
Lab ID: 40181033001 Collected: 12/11/18 16:30 Received: 12/14/18 09:00 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO									
Benzene	<0.31	ug/L	1.0	0.31	1		12/18/18 10:43	71-43-2	
Ethylbenzene	<0.33	ug/L	1.1	0.33	1		12/18/18 10:43	100-41-4	
Methyl-tert-butyl ether	<0.32	ug/L	1.1	0.32	1		12/18/18 10:43	1634-04-4	
Naphthalene	<0.51	ug/L	1.7	0.51	1		12/18/18 10:43	91-20-3	
Toluene	<0.49	ug/L	1.6	0.49	1		12/18/18 10:43	108-88-3	
1,2,4-Trimethylbenzene	<0.34	ug/L	1.1	0.34	1		12/18/18 10:43	95-63-6	
1,3,5-Trimethylbenzene	<0.33	ug/L	1.1	0.33	1		12/18/18 10:43	108-67-8	
m&p-Xylene	<0.66	ug/L	2.2	0.66	1		12/18/18 10:43	179601-23-1	
o-Xylene	<0.32	ug/L	1.0	0.32	1		12/18/18 10:43	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	96	%	80-120		1		12/18/18 10:43	98-08-8	HS,pH

Sample: MW2									
Lab ID: 40181033002 Collected: 12/11/18 16:45 Received: 12/14/18 09:00 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO									
Benzene	<0.31	ug/L	1.0	0.31	1		12/18/18 11:09	71-43-2	
Ethylbenzene	2.0	ug/L	1.1	0.33	1		12/18/18 11:09	100-41-4	
Methyl-tert-butyl ether	0.43J	ug/L	1.1	0.32	1		12/18/18 11:09	1634-04-4	
Naphthalene	<0.51	ug/L	1.7	0.51	1		12/18/18 11:09	91-20-3	
Toluene	<0.49	ug/L	1.6	0.49	1		12/18/18 11:09	108-88-3	
1,2,4-Trimethylbenzene	0.38J	ug/L	1.1	0.34	1		12/18/18 11:09	95-63-6	
1,3,5-Trimethylbenzene	0.52J	ug/L	1.1	0.33	1		12/18/18 11:09	108-67-8	
m&p-Xylene	2.2	ug/L	2.2	0.66	1		12/18/18 11:09	179601-23-1	
o-Xylene	1.6	ug/L	1.0	0.32	1		12/18/18 11:09	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	112	%	80-120		1		12/18/18 11:09	98-08-8	

Sample: MW3									
Lab ID: 40181033003 Collected: 12/11/18 16:50 Received: 12/14/18 09:00 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV Analytical Method: WI MOD GRO									
Benzene	<0.31	ug/L	1.0	0.31	1		12/18/18 11:35	71-43-2	
Ethylbenzene	<0.33	ug/L	1.1	0.33	1		12/18/18 11:35	100-41-4	
Methyl-tert-butyl ether	<0.32	ug/L	1.1	0.32	1		12/18/18 11:35	1634-04-4	
Naphthalene	<0.51	ug/L	1.7	0.51	1		12/18/18 11:35	91-20-3	
Toluene	<0.49	ug/L	1.6	0.49	1		12/18/18 11:35	108-88-3	
1,2,4-Trimethylbenzene	<0.34	ug/L	1.1	0.34	1		12/18/18 11:35	95-63-6	
1,3,5-Trimethylbenzene	<0.33	ug/L	1.1	0.33	1		12/18/18 11:35	108-67-8	
m&p-Xylene	<0.66	ug/L	2.2	0.66	1		12/18/18 11:35	179601-23-1	
o-Xylene	<0.32	ug/L	1.0	0.32	1		12/18/18 11:35	95-47-6	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 6190 LOU JOHN

Pace Project No.: 40181033

Sample: MW3 **Lab ID: 40181033003** Collected: 12/11/18 16:50 Received: 12/14/18 09:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
------------	---------	-------	-----	-----	----	----------	----------	---------	------

WIGRO GCV Analytical Method: WI MOD GRO

Surrogates

a,a,a-Trifluorotoluene (S)	96	%	80-120		1		12/18/18 11:35	98-08-8	
----------------------------	----	---	--------	--	---	--	----------------	---------	--

Sample: AAMW6 **Lab ID: 40181033004** Collected: 12/11/18 17:00 Received: 12/14/18 09:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
------------	---------	-------	-----	-----	----	----------	----------	---------	------

WIGRO GCV Analytical Method: WI MOD GRO

Benzene	<0.31	ug/L	1.0	0.31	1		12/18/18 12:00	71-43-2	
Ethylbenzene	<0.33	ug/L	1.1	0.33	1		12/18/18 12:00	100-41-4	
Methyl-tert-butyl ether	<0.32	ug/L	1.1	0.32	1		12/18/18 12:00	1634-04-4	
Naphthalene	<0.51	ug/L	1.7	0.51	1		12/18/18 12:00	91-20-3	
Toluene	<0.49	ug/L	1.6	0.49	1		12/18/18 12:00	108-88-3	
1,2,4-Trimethylbenzene	<0.34	ug/L	1.1	0.34	1		12/18/18 12:00	95-63-6	
1,3,5-Trimethylbenzene	<0.33	ug/L	1.1	0.33	1		12/18/18 12:00	108-67-8	
m&p-Xylene	<0.66	ug/L	2.2	0.66	1		12/18/18 12:00	179601-23-1	
o-Xylene	<0.32	ug/L	1.0	0.32	1		12/18/18 12:00	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	97	%	80-120		1		12/18/18 12:00	98-08-8	

Sample: AAMW7 **Lab ID: 40181033005** Collected: 12/11/18 17:05 Received: 12/14/18 09:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
------------	---------	-------	-----	-----	----	----------	----------	---------	------

WIGRO GCV Analytical Method: WI MOD GRO

Benzene	34.7	ug/L	10.2	3.1	10		12/19/18 11:58	71-43-2	
Ethylbenzene	134	ug/L	11.0	3.3	10		12/19/18 11:58	100-41-4	
Methyl-tert-butyl ether	17.0	ug/L	10.7	3.2	10		12/19/18 11:58	1634-04-4	
Naphthalene	24.3	ug/L	16.8	5.1	10		12/19/18 11:58	91-20-3	
Toluene	213	ug/L	16.3	4.9	10		12/19/18 11:58	108-88-3	
1,2,4-Trimethylbenzene	345	ug/L	11.4	3.4	10		12/19/18 11:58	95-63-6	
1,3,5-Trimethylbenzene	135	ug/L	10.9	3.3	10		12/19/18 11:58	108-67-8	
m&p-Xylene	1070	ug/L	21.8	6.6	10		12/19/18 11:58	179601-23-1	
o-Xylene	401	ug/L	10.5	3.2	10		12/19/18 11:58	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	99	%	80-120		10		12/19/18 11:58	98-08-8	HS

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 6190 LOU JOHN
Pace Project No.: 40181033

QC Batch: 309455 Analysis Method: WI MOD GRO
QC Batch Method: WI MOD GRO Analysis Description: WIGRO GCV Water
Associated Lab Samples: 40181033001, 40181033002, 40181033003, 40181033004, 40181033005

METHOD BLANK: 1807755 Matrix: Water
Associated Lab Samples: 40181033001, 40181033002, 40181033003, 40181033004, 40181033005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.34	1.1	12/18/18 09:00	
1,3,5-Trimethylbenzene	ug/L	<0.33	1.1	12/18/18 09:00	
Benzene	ug/L	<0.31	1.0	12/18/18 09:00	
Ethylbenzene	ug/L	<0.33	1.1	12/18/18 09:00	
m&p-Xylene	ug/L	<0.66	2.2	12/18/18 09:00	
Methyl-tert-butyl ether	ug/L	<0.32	1.1	12/18/18 09:00	
Naphthalene	ug/L	<0.51	1.7	12/18/18 09:00	
o-Xylene	ug/L	<0.32	1.0	12/18/18 09:00	
Toluene	ug/L	<0.49	1.6	12/18/18 09:00	
a,a,a-Trifluorotoluene (S)	%	97	80-120	12/18/18 09:00	

LABORATORY CONTROL SAMPLE & LCSD: 1807756 1807757

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	20.2	20.2	101	101	80-120	0	20	
1,3,5-Trimethylbenzene	ug/L	20	19.6	19.6	98	98	80-120	0	20	
Benzene	ug/L	20	19.7	19.8	99	99	80-120	0	20	
Ethylbenzene	ug/L	20	20.1	20.1	101	101	80-120	0	20	
m&p-Xylene	ug/L	40	39.4	39.4	99	98	80-120	0	20	
Methyl-tert-butyl ether	ug/L	20	20.0	20.0	100	100	80-120	0	20	
Naphthalene	ug/L	20	20.4	20.2	102	101	80-120	1	20	
o-Xylene	ug/L	20	19.7	19.6	98	98	80-120	0	20	
Toluene	ug/L	20	19.8	19.8	99	99	80-120	0	20	
a,a,a-Trifluorotoluene (S)	%				97	98	80-120			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1808354 1808355

Parameter	Units	40181033003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2,4-Trimethylbenzene	ug/L	<0.34	20	20	15.0	16.9	75	84	51-160	12	20	
1,3,5-Trimethylbenzene	ug/L	<0.33	20	20	16.4	18.1	82	91	56-146	10	20	
Benzene	ug/L	<0.31	20	20	21.3	20.7	106	104	71-137	3	20	
Ethylbenzene	ug/L	<0.33	20	20	21.5	21.2	108	106	71-141	2	20	
m&p-Xylene	ug/L	<0.66	40	40	39.5	40.1	99	100	66-141	2	20	
Methyl-tert-butyl ether	ug/L	<0.32	20	20	20.8	20.3	104	102	80-120	2	20	
Naphthalene	ug/L	<0.51	20	20	21.5	21.0	108	105	67-138	2	20	
o-Xylene	ug/L	<0.32	20	20	19.9	20.1	100	101	75-133	1	20	
Toluene	ug/L	<0.49	20	20	21.2	20.8	106	104	76-134	2	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 6190 LOU JOHN

Pace Project No.: 40181033

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		1808354		1808355									
Parameter	Units	40181033003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
a,a,a-Trifluorotoluene (S)	%						99	99	80-120				

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

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: 6190 LOU JOHN

Pace Project No.: 40181033

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.

ANALYTE QUALIFIERS

HS Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).

pH Post-analysis pH measurement indicates insufficient VOA sample preservation.

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE


Project: 6190 LOU JOHN

Pace Project No.: 40181033

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40181033001	MW1	WI MOD GRO	309455		
40181033002	MW2	WI MOD GRO	309455		
40181033003	MW3	WI MOD GRO	309455		
40181033004	AAMW6	WI MOD GRO	309455		
40181033005	AAMW7	WI MOD GRO	309455		

REPORT OF LABORATORY ANALYSIS

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

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

Sample Condition Upon Receipt Form (SCUR)

Project #: **WO#: 40181033**

Client Name: REI

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



Tracking #: 1925411

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Custody Seal on Samples Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used SR - N/A Type of Ice: Wet Blue Dry None Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 19.2 / ICorr:

Temp Blank Present: yes no

Biological Tissue is Frozen: yes no

Person examining contents:
 Date: 12/14/18
 Initials: _____

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

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>pg #, results, invoice</u>
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3. <u>12/14/18</u>
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input 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:		8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12. <u>01-4:40</u> <u>004-5:05</u> <u>005-5:00</u>
-Includes date/time/ID/Analysis Matrix:		<u>12/14/18</u>
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 type="checkbox"/> No <input checked="" 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: [Signature] Date: 12-14-18