708 Heartland Trail
Suite 3000
Madison, WI 53717

608-826-3600 PHONE
608-826-3941 FAX

www.TRCsolutions.com

April 16, 2019

Mr. Matt Thompson
Wisconsin Department of Natural Resources
1300 W. Clairemont Avenue
Eau Claire, WI 54701

Subject: Supplemental Vapor Intrusion Assessment - Soil Gas Investigation at Well W40
Wauleco, Inc., Wausau, Wisconsin
BRRTS #02-37-000006

Dear Mr. Thompson:

On behalf of Wauleco, Inc., (Wauleco), TRC Environmental Corporation (TRC) is submitting this Supplemental Vapor Intrusion Assessment - Soil Gas Investigation Report for the Wauleco site in Wausau, Wisconsin. The location of the site is shown on Figure 1.

Background

In June 2012, TRC provided the Wisconsin Department of Natural Resources (WDNR) with a Vapor Intrusion Risk Screening Level Assessment[1] (VI Assessment) concluding that there were no potentially complete vapor intrusion pathways associated with the Wauleco site based on the site conditions present at that time.

Following the initial VI Assessment, free product[2] has been sporadically observed in off-site monitoring well W40 on a few occasions. Based on this site condition, the WDNR requested an update to the VI Assessment for the site. The WDNR's current vapor intrusion guidance[3] recommends additional assessment of the vapor intrusion pathway when free product containing petroleum hydrocarbons is present within 15 feet (vertically) of a building foundation.

On January 15, 2019, a Soil Gas Investigation Workplan[4] was submitted to the WDNR, which described the rational and sampling methods for the supplemental VI Assessment.

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1 TRC, 2012. Vapor Intrusion Risk Screening Level Assessment. Wauleco, Inc., 125 Rosecrans Street, Wausau, Wisconsin. June 14, 2012.

2 The terms free product and mobile light non-aqueous phase liquid (LNAPL) are synonymous. Free product is used here for consistency with the term used in WDNR's Vapor Intrusion guidance.

3 WDNR, 2018. Addressing Vapor Intrusion at Remediation and Redevelopment Sites in Wisconsin. RR-800. January 2018.

4 TRC, 2019. Supplemental Vapor Intrusion Assessment - Soil Gas Investigation Workplan at Well W40. Wauleco, Inc., Wausau, Wisconsin. January 15, 2019.

The workplan described the means, methods and rationale for conducting a soil gas investigation at monitoring well W40 and received WDNR verbal approval on February 7, 2019.

Current Site Conditions

2018 Annual Report Findings

The sporadic observation of free product off-site has been limited to well W40. In July 2017, 0.04 feet of free product was detected in W40 and depth to groundwater was approximately 18.5 feet from ground surface.

February 2019 Conditions

Prior to collecting the soil gas samples, the depth to water and evaluation for free product were measured in W40. On February 21, 2019, 0.02 feet of free product was present in W40 and the depth to groundwater was approximately 19.5 feet from ground surface.

The presence of free product in W40 on the day of sampling is important because this demonstrates the results from the soil gas sampling will be representative of worst-case conditions and allows definitive conclusions to be drawn as to whether the site can support aerated soil conditions when free product is present.

Weather Conditions

The sampling was scheduled for winter to allow soil gas to be collected while the surface was frozen (i.e., frost was observed to approximately 2-feet below ground surface on February 14, 2019; see boring log in Attachment A). This is the worst-case seasonal condition because there is less connection between the soil and the atmosphere when the ground is frozen. As with the presence of free product noted above, results from soil gas sampling collected in winter are generally representative of worst-case conditions and allows definitive conclusions to be drawn as to whether the site can support aerated soil conditions. The weather leading up to and the day of the soil gas sampling was consistently below freezing with several snow events and the ground had been frozen for months.

Scope of Work

On February 14, 2019, TRC oversaw the installation of two soil gas probes (SG1A and SG1B) in the right-of-way near W40 (Figure 2). TRC's Geoprobe®, subcontractor, On-Site Environmental, installed the two soil gas probes in accordance with the Workplan. The soil boring log and soil gas probe construction diagrams are included in Attachment A.

The soil gas probes were set at depths of approximately 9 feet and 16 feet below ground surface (bgs). Probe SG1A was set at 9 feet bgs to be at a depth adjacent, but below the depth of a typical basement, and probe SG1B was set at 16 feet bgs to be representative of the soil gas conditions in the so-called "smear zone" above the water table.

The soil gas probes were sealed at the surface (the borehole was sealed with bentonite and the tubing was clamped shut). TRC returned to the site seven days later, on February 21, 2019, to complete the soil gas sampling. This allowed the monitoring probes to stabilize with the subsurface conditions. Weather between February 14th and 21st was very cold with several snow events.

TRC calculated the purge volume for each probe and used the LandTec 2000 Soil Gas Analyzer (LandTec) to purge three well volumes from each location following leak testing. The soil gas samples were field analyzed throughout the purging process with the LandTec for oxygen (O_2), methane (CH_4), carbon dioxide (CO_2), and lower explosive limit (LEL). Field sampling logs are included in Attachment B.

The soil gas probes were abandoned on March 28, 2019, abandonment forms are included in Attachment C.

Results

The CO_2, CH_4, and LEL, and O_2 levels measured after three air volumes were purged from each probe are summarized in Table 1. The results are compared to the aerated soil indicator parameters listed in WDNR's VI Guidance.

The results show that aerated soil gas conditions are present at both sample depths. The results from SG1A (9 feet bgs) show saturated oxygen conditions in the shallow zone approximately 10 feet above the water table; the results from SG1B (16 feet bgs) show a slight depletion in oxygen (but still aerated) and an increase in carbon dioxide in the deeper "smear zone" just above the water table. This pattern aligns with the conceptual model of what one would expect to see with petroleum hydrocarbon impacts in groundwater.

Conclusions and Recommendations

The soil gas sampling results demonstrate that the subsurface is very well aerated throughout the soil column near W40. Therefore, the vapor intrusion pathway from petroleum hydrocarbons can be ruled out at this location and no further investigation is recommended for the vapor intrusion pathway.

If you have any questions or comments regarding this information, please call Bruce Iverson at (608) 826-3644.

Sincerely,

TRC Environmental Corporation

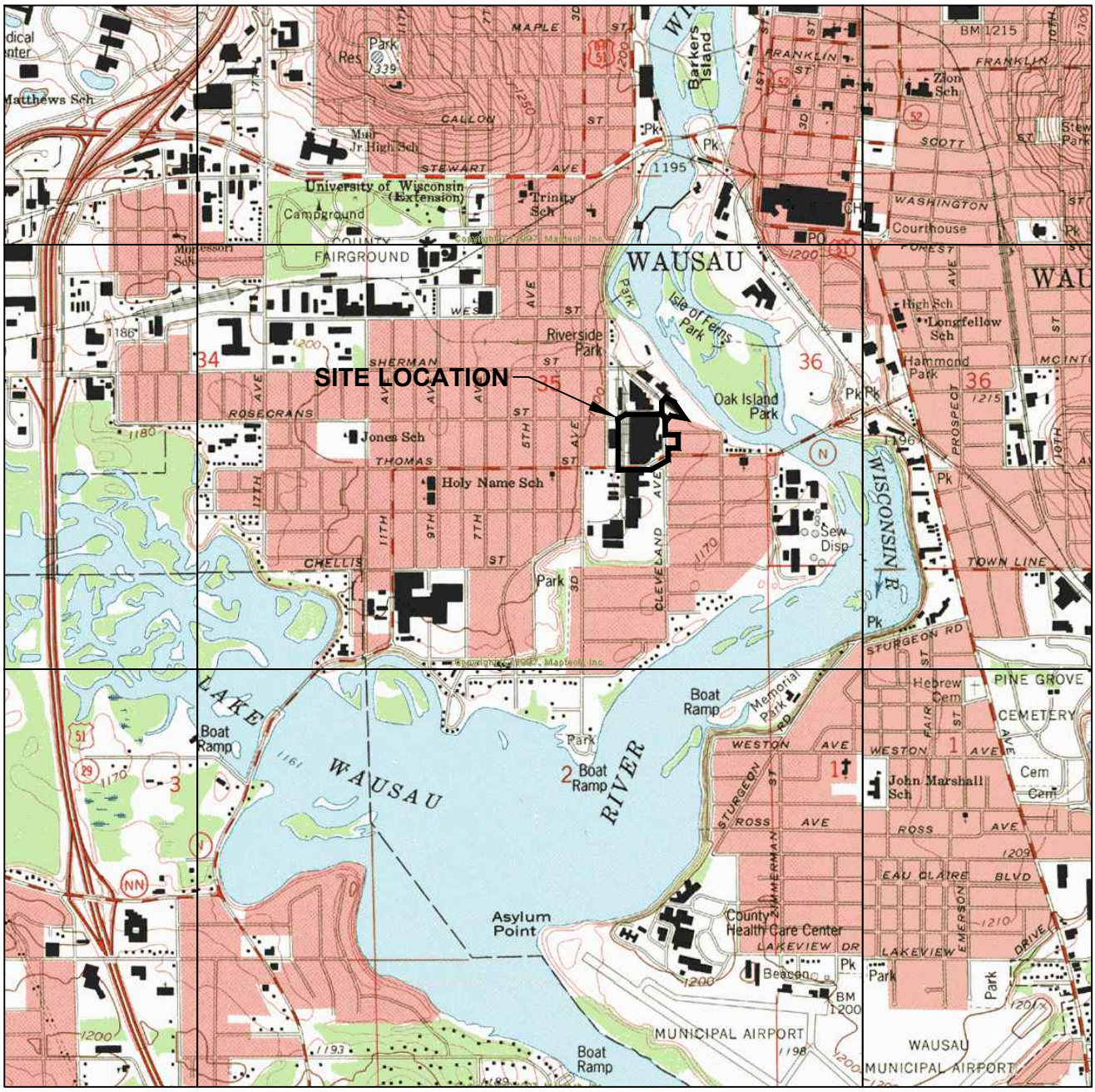
Bruce Iverson, P.E.
Project Manager

Alyssa Sellwood, P.E.
Senior Project Engineer

Attachments: Figure 1 – Site Locator Map
Figure 2 – Soil Gas Probes Location Map
Table 1 – Soil Gas Sampling Results – February 21, 2019
Attachment A – Soil Gas Probe Boring Logs
Attachment B – Soil Gas Data Field Log
Attachment C – Soil Gas Probe Abandonment Forms

cc: Evan Schreiner – Wauleco, Inc. (2 copies)
David Crass – Michael Best & Friedrich, LLP (1 copy)
Tom Dushek – TRC Wauleco (1 copy)
Ken Quinn – TRC (1 copy)

Figures



WISCONSIN

QUADRANGLE LOCATION

NOTE

BASE MAP DEVELOPED FROM THE WAUSAU WEST AND WAUSAU EAST, WISCONSIN 7.5 MINUTE U.S.G.S. TOPOGRAPHIC QUADRANGLE MAPS, DATED 1993. PART OF SECTION 35, T29N, R8E

TRC
708 Heartland Trail
Suite 3000
Madison, WI 53717
Phone: 608.826.3600

PROJECT:

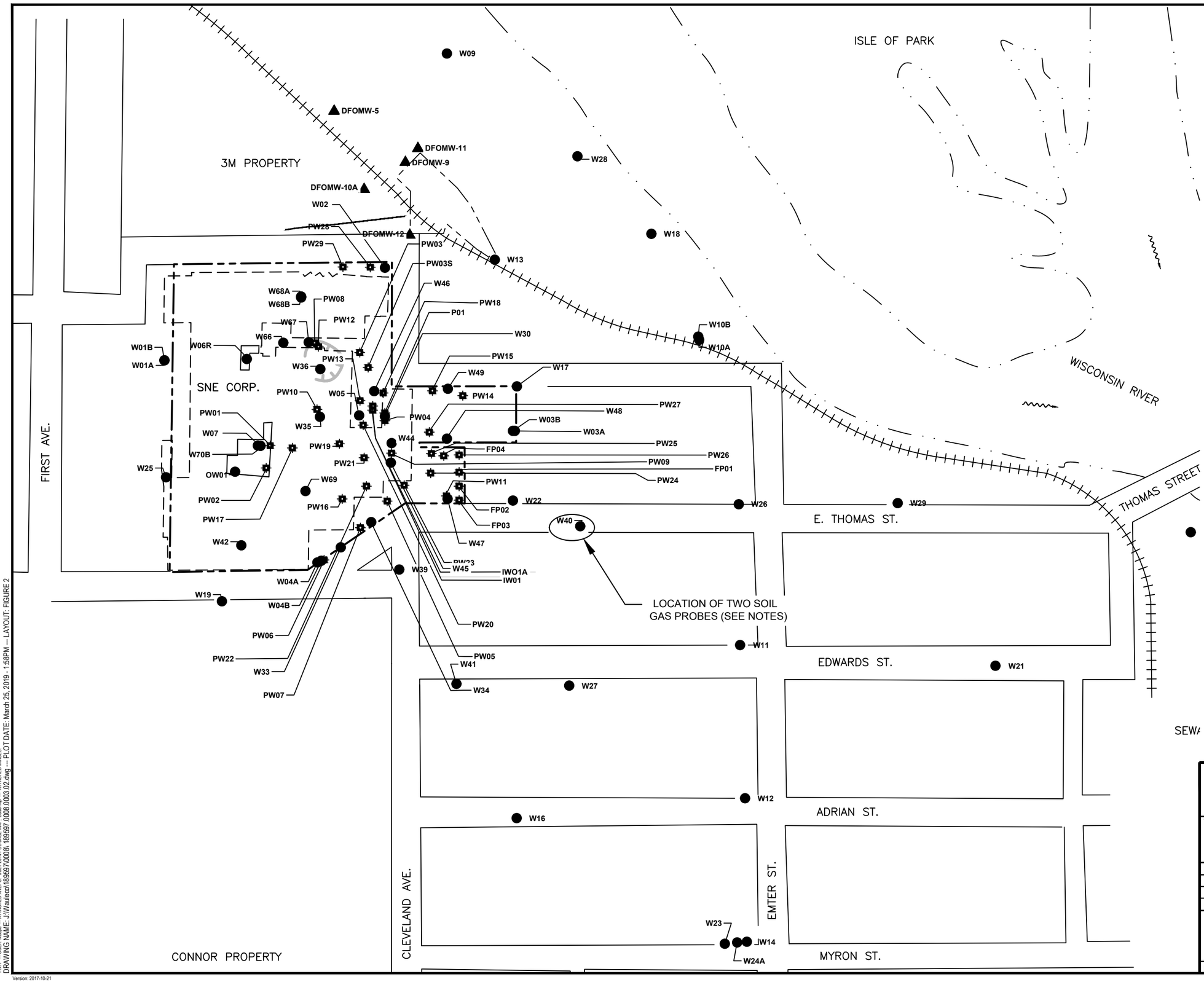
WAULECO, INC.
125 ROSECRANS STREET
WAUSAU, WISCONSIN

TITLE:

SITE LOCATION MAP

DRAWN BY:	B. YUNUSOV
CHECKED BY:	K. QUINN
APPROVED BY:	B. IVERSON
DATE:	MARCH 2019
PROJ. NO.:	189597
FILE:	189597.0008.01.FIG1.dwg

FIGURE 1



LEGEND

- W40 ● — MONITORING WELL LOCATION AND NUMBER
- PW12 ✸ — EXTRACTION WELL LOCATION AND NUMBER
- DFOMW-5 ▲ — 3M GROUNDWATER MONITORING WELL
- APPROXIMATE PROPERTY LINE
- FORMER BUILDING OUTLINE

NOTES:

1. SOIL GAS PROBES WERE INSTALLED ON 2/14/19 IN THE RIGHT OF WAY NEAR W40.
2. ONE SOIL GAS PROBE WAS SET AT DEPTH OF 9 FT, AND THE SECOND PROBE WAS SET AT DEPTH OF 16FT.
3. SOIL GAS PROBES WERE ABANDONED ON 3/28/19.

PROJECT:
WAULECO, INC.
SOIL GAS INVESTIGATION WORK PLAN AT WELL W40
WAUSAU, WISCONSIN

TITLE:
SOIL GAS PROBES LOCATION MAP

DRAWN BY:	T. FIEBRANZ	PROJ NO.:	189597.0008.0003
CHECKED BY:	B. IVERSON		
APPROVED BY:	K. QUINN		**FIGURE 2**
DATE:	JANUARY 2019		

TRC
650 Suffolk Street
Suite 200
Lowell, MA 01854
Phone: 978.970.5600

FILE NO.: 189597.0008.0003.02.dwg

Table

Table 1
Soil Gas Sampling Results - February 21, 2019
Wauleco, Inc.
Wausau, Wisconsin

SAMPLE ID	DEPTH (ft)	O_2	CO_2	CH_4	% LEL
SG1A	9	20.2%	1.9%	0.0%	1%
SG1B	16	12.5%	5.0%	0.1%	2%
Indicator of Aerated Soil		**≥ 5%**	**Low Levels**	**< 1%**	**< 10%**

Notes:

1. Data was collected and analyzed in the field using a LandTec 2000 Soil Gas Analyzer.
2. Summarized results are those collected after purging three volumes from each soil gas probe.

Prepared By: A. Sellwood 3/20/19
Checked By: K. Quinn 3/21/19

Attachment A

Soil Gas Probe Boring Logs

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☒ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Wauleco, Inc.		SG1B

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
T Kapugi On-Site Environmental Services, Inc.	2/14/2019	2/14/2019	Geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.5 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane 406855 N, 2063327 E S / C / N
1/4 of 1/4 of Section , T N, R
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Marathon	37	Wausau

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 GP	60		0–2	**TOPSOIL** **POORLY GRADED SAND WITH SILT (SP-SM)**, fine to medium grained, some silt, trace gravel, strong brown (7.5YR 5/6), no odors, frozen 0 to 2 feet bgs then moist.										
			2–4		SP-SM									
2 GP	60		4–6	sand with silt, as above, no odor, moist.										
			6–8											
			8–10	**WELL GRADED SAND (SW)**, fine to coarse grained, trace gravel, light brown (7.5YR 6/3), no odors, moist.	SW									
3 GP	60		10–12	**POORLY GRADED SAND WITH GRAVEL(SP)**, coarse grained sand, some fine to coarse gravel, trace cobbles, light brown (7.5YR 6/3), no odors, moist.										
			12–14		SP									
4 GP	60		14–16											
			16–18	**POORLY GRADED SAND WITH SILT (SP-SM)**, fine grained, some silt, very dark gray (7.5YR 3/1), no odors, moist.	SP-SM									
			18–20	**WELL GRADED GRAVEL WITH SAND(GW)**, fine to coarse grained gravel, some fine sand, strong brown (7.5YR 4/6), no odors, moist going to wet at 19.4 feet bgs.	GW		▼							
				Boring terminated at 20 feet bgs (2/14/2019). *Soil gas probe installed to 16.4 feet bgs using stainless steel screen and teflon tubing. See construction form for details.										

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

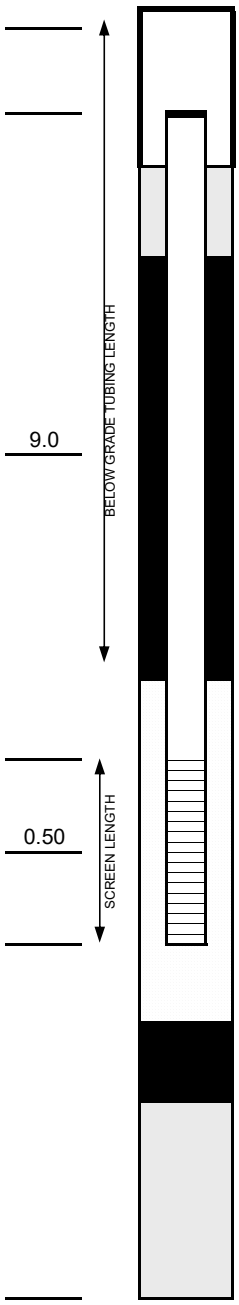
Signature	Firm	
Thomas Dushek	TRC Environmental Corporation 708 Heartland Trail Suite 3000 53717	Tel: 608-826-3600 Fax: 608-238-7156

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

SOIL GAS SAMPLE POINT CONSTRUCTION DIAGRAM

PROJ. NAME:	Wauleco			POINT ID:	**SG 1A**
PROJ. NO:	189597.00	DATE INSTALLED: 2/14/2019	INSTALLED BY: T. Kapugi (ONSITE)	CREATED BY:	T.Duschek
				CHECKED BY:	A.Stehn

ELEVATION (BENCHMARK: USGS)	DEPTH BELOW OR ABOVE GROUND SURFACE (FEET)



0.0 GROUND SURFACE
0.5 CONCRETE
1.0 SAND
1.0 TOP OF BENTONITE SEAL

SEAL MATERIAL
GRANULAR BENTONITE

7.7 BOTTOM OF BENTONITE SE/
9.0 TOP OF SCREEN

FILTER PACK MATERIAL
MEDIUM, WASHED SAND

9.5 BOTTOM OF SCREEN
10.0 BOTTOM OF FILTER PACK
NA BENTONITE PLUG

BACKFILL MATERIAL
NA

10.0 HOLE BOTTOM

SAMPLE POINT DETAILS

MATERIAL: TEFLON TUBING

TUBING SIZE: 1/4" OD

SCREEN TYPE: 6" STAINLESS STEEL IMPLANT

SCREEN MATERIAL WIRE MESH

BOREHOLE DIAMETER: 2.5 IN. FROM 2 TO 10 FT.

SURF. CASING DIAMETER: 4 IN. FROM 0 TO 10 IN.

SUBSURFACE CONDITIONS:

Ground was frozen to 2 ft bgs.

Subsurface is fine grain sand and silt with trace gravel.

CONSTRUCTION NOTES:

Tubing extends 18-inches above grade to facilitate connection to sampling instrument. Tubing is closed to atmosphere by clamps.

PROTECTIVE COVER DETAILS

PERMANENT, LEGIBLE LABEL ADDED? ☑ YES ☐ NO

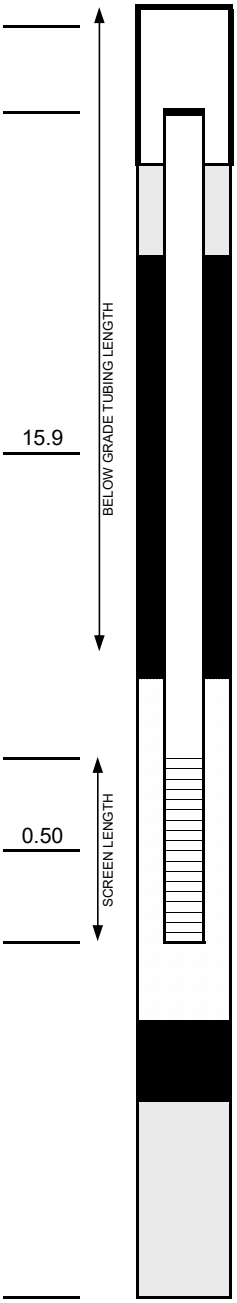
PROTECTIVE COVER INSTALLED? ☑ YES ☐ NO

SOIL GAS SAMPLE POINT CONSTRUCTION DIAGRAM

PROJ. NAME: Wauleco		POINT ID:	**SG 1B**
PROJ. NO: 189597.00	DATE INSTALLED: 2/14/2019	INSTALLED BY: T. Kapugi (ONSITE)	CREATED BY: T.Dushek
			CHECKED BY: A.Stehn

ELEVATION (BENCHMARK: USGS)

DEPTH BELOW OR ABOVE GROUND SURFACE (FEET)



0.0 GROUND SURFACE

0.5 CONCRETE

1.0 SAND

1.0 TOP OF BENTONITE SEAL

SEAL MATERIAL

GRANULAR BENTONITE

14.7 BOTTOM OF BENTONITE SE/

15.9 TOP OF SCREEN

FILTER PACK MATERIAL

MEDIUM, WASHED SAND

16.4 BOTTOM OF SCREEN

20.0 BOTTOM OF FILTER PACK

NA BENTONITE PLUG

BACKFILL MATERIAL

NA

20.0 HOLE BOTTOM

SAMPLE POINT DETAILS

MATERIAL: TEFLON TUBING

TUBING SIZE: 1/4" OD

SCREEN TYPE: 6" STAINLESS STEEL IMPLANT

SCREEN MATERIAL WIRE MESH

BOREHOLE DIAMETER: 2.5 IN. FROM 2 TO 20 FT.

SURF. CASING DIAMETER: 4 IN. FROM 0 TO 10 IN.

SUBSURFACE CONDITIONS:

Ground was frozen to 2 ft bgs.

Subsurface is fine grain sand and silt with trace gravel.

CONSTRUCTION NOTES:

Tubing extends 18-inches above grade to facilitate connection to sampling instrument. Tubing is closed to atmosphere by clamps.

PROTECTIVE COVER DETAILS

PERMANENT, LEGIBLE LABEL ADDED? ☑ YES ☐ NO

PROTECTIVE COVER INSTALLED? ☑ YES ☐ NO

REVISED 03/2016

Attachment B

Soil Gas Data Field Log

Soil Gas Monitoring – Probe SG1A

Wanlass Project site

TRC

Well ID		Personnel	Tom Dushek
Date	2/21/19	Total Well Depth (ft)	Filter Pack - 7.7 to 10 Ft
Site Probe	SG1A	Top of Screen (ft btoc)	9.0 Ft
Depth to Product (ft)		Screen Length (ft)	6 inches
Depth to Water (ft)		Open Screen Length (ft)	1 volume = 4.8 min @ 200 cc/min
Product Thickness (ft)		Equipment	LandTec 2000 Soil Gas Analyzer

Time		Time (min)	Temp (deg. C)	CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	% LEL	Notes or Comments
1350	1			0	1.9	19.8	1	Outside Temp. - 20° F
	2			0	1.9	19.9	1	
	3			0	1.9	19.9	1	
	4			0.1	1.9	20.0	1	
	5			0.1	1.9	20.0	1	1 volume
	6			0.1	1.9	20.0	1	
	7			0.1	1.9	20.0	1	
	8			0.1	1.9	20.1	1	
	9			0	1.9	20.1	1	
1400	10			0	1.9	20.1	1	2 volumes
	11			0	1.9	20.2	1	
	12			0	1.9	20.2	1	
	13			0.1	1.9	20.2	1	
1405	14			0	1.9	20.2	1	
	15			0	1.9	20.2	1	3 Volumes
	16							
	17							
	18							
	19							
	20							
	21							
	22							
	23							
	24							
	25							

Record measurements in units listed on form

Initial_____ Date_____

Soil Gas Monitoring - Probe SG1B

Wawleco Project Site

TRC

Neighbor Well ID	W40	Personnel	Tom Dushek
Date	2/21/19	Total Well Depth (ft)	Filter Pack - 14.7 to 20 Ft
Site Probe	SG1B	Top of Screen (ft btoc)	15.9 Ft
W40 Depth to Product (ft)	18.95	Screen Length (ft)	6 inches
W40 Depth to Water (ft)	18.97	Open Screen Length (ft)	1 volume = 10.8 min @ 200 cc/min
W40 Product Thickness (ft)	0.02	Equipment	LandTec 2000 Soil Gas Analyzer

Page 1

Time

	Time (min)	Temp (deg. C)	CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	% LEL	Notes or Comments
1413 1			0.1	3.5	16.1	1	Outside Temp. - 20° F
2			0.1	3.7	15.4	2	
3			0.1	3.8	15.5	2	
4			0.1	3.8	15.3	2	
5			0.1	3.9	15.3	2	
6			0.1	4.1	14.5	2	
7			0.1	4.1	14.6	2	
8			0.1	4.0	15.0	2	
9			0.1	4.2	14.4	2	
1424 10			0.1	4.1	14.8	2	
11			0.1	4.1	14.7	2	1 volume
12			0.1	4.2	14.4	2	
13			0.1	4.5	13.7	2	
14			0.1	4.4	14.0	2	
15			0.1	3.9	15.4	2	
16			0.1	4.0	15.2	2	
17			0.1	3.9	15.7	2	
18			0.1	3.9	15.6	2	
19			0.1	4.0	15.1	2	
1434 20			0.1	4.2	14.8	2	
21			0.1	4.3	14.3	2	
22			0.1	4.5	13.8	2	2 volumes
23			0.1	4.4	13.9	2	
24			0.1	4.5	13.9	2	
25			0.1	4.5	13.9	2	

Record measurements in units listed on form

Initial_____ Date_____

Probe SG1B continued

Wauleco Project Site

TRC

Well ID		Personnel	
Date		Total Well Depth (ft)	
Site Probe	SG1B	Top of Screen (ft btoc)	
Depth to Product (ft)		Screen Length (ft)	
Depth to Water (ft)		Open Screen Length (ft)	
Product Thickness (ft)		Equipment	LandTec 2000 Soil Gas Analyzer

Page 2

	Time (min)	Temp (deg. C)	CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	% LEL	Notes or Comments
Time							
1			0.1	4.3	14.3	2	
2			0.1	4.3	14.5	2	
3			0.1	4.1	15.0	2	
4			0.1	4.4	13.9	2	
1444 5			0.1	4.8	13.0	2	
6			0.1	5.0	12.4	2	
7			0.1	5.1	12.2	2	
1447 8			0.1	5.0	12.5	2	3 volumes
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

Record measurements in units listed on form

Initial_____ Date_____

Attachment C

Soil Gas Probe Abandonment Forms

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, 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 DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☑ Remediation/Redevelopment
☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Marathon		

Latitude / Longitude (see instructions)	Format Code	Method Code
44.948755 N	☒ DD	☐ GPS008
-89.63374 W	☐ DDM	☐ SCR002 ☐ OTH001

¼ / ¼	¼	Section	Township	Range
NW	SE	35	29 N	07 ☒ E ☐ W

or Gov't Lot #

Well Street Address: 127 E. Thomas Street

Well City, Village or Town	Well ZIP Code
Wausau	54401

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
Street Construction	

2. Facility / Owner Information

Facility Name: Wauleco

Facility ID (FID or PWS): 737063800

License/Permit/Monitoring #:

Original Well Owner: Wauleco

Present Well Owner: Wauleco

Mailing Address of Present Owner: 1800 N. Point Drive

City of Present Owner	State	ZIP Code
Stevens Point	WI	54481

3. Filled & Sealed Well / Drillhole / Borehole Information

☑ Monitoring Well ☐ Water Well ☐ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 2/14/2019

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☑ Other (specify): Direct Push

Formation Type:
☑ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
10	1

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2	

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
Liner(s) perforated?	☐ 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 ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☐ 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.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Granular Bentonite	Surface	10	8#	

6. Comments

SG IA

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
On-site Environmental Services, Inc.		3/28/2019

Street or Route	Telephone Number
PO Box 280	(608) 837-8992

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Sun Prairie	WI	53590	Anthony R. Kapugi	4/4/2019

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, 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 DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☑ Remediation/Redevelopment
☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Marathon		

Latitude / Longitude (see instructions)	Format Code	Method Code
44.948755 N -89.633728 W	☒ DD ☐ DDM	☐ GPS008 ☐ SCR002 ☐ OTH001

¼ / ¼	¼	Section	Township	Range
NW	SE	35	29 N	07 ☒ E ☐ W

or Gov't Lot #

Well Street Address: 127 E. Thomas Street

Well City, Village or Town	Well ZIP Code
Wausau	54401

Subdivision Name	Lot #

Reason for Removal from Service	WI Unique Well # of Replacement Well
Street Construction	

2. Facility / Owner Information

Facility Name: Wausau

Facility ID (FID or PWS): 737063800

License/Permit/Monitoring #:

Original Well Owner: Wausau

Present Well Owner: Wausau

Mailing Address of Present Owner: 1800 N. Point Drive

City of Present Owner	State	ZIP Code
Stevens Point	WI	54481

3. Filled & Sealed Well / Drillhole / Borehole Information

☑ Monitoring Well ☐ Water Well ☐ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 2/14/2019

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☑ Other (specify): Direct Push

Formation Type:
☑ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
20	1

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2	

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
Liner(s) perforated?	☐ 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 ☐ Concrete
☐ Sand-Cement (Concrete) Grout ☐ 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

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Granular Bentonite	Surface	10	8#	

6. Comments

SG IB

7. Supervision of Work

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