March 18, 2024



Mr. Joesph Martinez Wisconsin Department of Natural Resources 2300 N. Dr. Martin Luther King Jr. Drive Milwaukee, WI 53212-3128

RE: Results of Additional Environmental Services for the Former Saukville Fabricare Property Located at 144 South Foster Street in Saukville, Wisconsin — FEC Project No. 041101; DNR FID No. 246061640; BRRTS No. 02-46-448965

Dear Mr. Martinez:

As requested, *Friess Environmental Consulting (FEC)* has prepared this letter to document the results of additional environmental services, including sewer evaluation, off-site vapor evaluation, and additional documentation.

## Project Background

As you are aware, site investigation activities have been conducted for a release of chlorinated volatile organic compounds (CVOCs) from the above referenced site. FEC submitted a closure request to the DNR in November 2022. The DNR reviewed the submittal and requested additional vapor sampling of the utility corridor and downgradient off-site property in their letter dated March 20, 2023. The results of the additional actions are presented below.

### Project Results

## Sewer Evaluation

Based on the presence of a sanitary sewer within the source area and groundwater plume, the DNR determined that vapor sampling within the sanitary sewer is warranted to determine if the sanitary sewer is acting as a preferential pathway for the migration of CVOC contaminated vapors.

As such, vapor samples were collected from the sewer cleanout located west of the building (closest access to the source) within the parking lot and from the next downgradient cleanout (located on the west end of the parking lot), and the locations are depicted on the attached diagram. The vapor samples were collected utilizing summa canisters in accordance with RR-649 "Guidance for Documenting the Investigation of Human-made Preferential Pathways Including Utility Corridors" and submitted to a certified analytical laboratory under standard chain-of-custody protocol for analyses of CVOCs, via the TO-15 analytical method.

The results of the sewer vapor sampling indicate no detectable concentrations of CVOCs within the sewer utility corridor above the residential vapor risk screening limits (VRSLs). As such, the sanitary sewer utility is not acting as a preferential

pathway for the migration of CVOC vapors. The results of the sewer vapor sampling are presented on the attached table and laboratory report.

# Sub-Slab Air Sampling

Due to variations in the groundwater flow direction over time, PCE contaminated groundwater present at MW-3 could extend beneath the neighboring 130-134 S. Foster St. building. Due to the potential for groundwater containing PCE to pose a vapor risk, the DNR requested a vapor investigation at the neighboring 130-134 S. Foster St. building.

Two vapor points (VP-14 and VP-15) were installed in the eastern portion of the adjoining building located at 130-134 S. Foster Street and the locations are depicted on the attached diagram. FEC collected two rounds of sub-slab samples (non-heating in October 2023 and heating in December 2023) from the two new vapor points to evaluate vapor intrusion risk to the building. The vapor samples were collected utilizing summa canisters in accordance with RR-800. The air samples were subsequently submitted under standard chain-of-custody protocol to a Wisconsin-certified laboratory for analyses of CVOCs, via the TO-15 analytical method.

The results of the sub-slab vapor sampling indicate no detectable concentrations within the sub-slab vapors above the residential VRSLs. The results would indicate no vapor intrusion risk for the off-site building. The results of the vapor sampling are presented on the attached table and laboratory reports.

# Documentation

In their March 20, 2023, letter the DNR requested a figure that includes the location of utilities associated with the off-site 130-134 S. Foster St. building. The revised figure is attached.

In addition, the DNR requested an evaluation of a potable well present on the DNR well driller viewer as being located within 500 feet of the site to be a potential receptor of contamination from the site. Based on a review of the well construction report (attached), the well in question was installed in 1951 as a residential potable well to a depth of 68 feet below ground surface and grouted to a depth of 30 feet bgs. The well construction report only provides the quarter-quarter section and not an actual address for the well location. In review of the 1950 aerial photograph of the area the only residential properties near the site at the time of well installation would be located approximately 350 feet north-northwest (side gradient), approximately 500 feet northeast (upgradient) and south-southwest (side gradient), and approximately 800 feet east (upgradient). Several of these former residential properties are no longer present. Based on discussions with the Village of Saukville, the Village is serviced by municipal water and former potable wells have been abandoned and/or taken out of service. According to the Village the closest municipal well is located approximately 1,300 feet from the subject site. As such, it is unlikely that the potable well documented on the DNR well driller viewer is in a downgradient direction or remaining in service and would not be considered as a potential receptor.

# Conclusions and Recommendations

The sewer and off-site sub-slab vapor sampling results indicate no detectable concentrations. This indicates that the sanitary sewer is not acting as a preferential pathway for the migration of CVOC vapors and there is no vapor intrusion risk for the off-site building.

Utilities for the off-site 130-134 Foster Street building are not in the area of impacts and would not be acting as preferential pathways for contaminant migration. In addition, it is unlikely that the potable well documented on the DNR well driller viewer is in a downgradient direction or remaining in service and would not be considered as a potential receptor.

As such, we request approval to complete the updated closure for DNR review and re-evaluation of the site for closure.

Please call us at (414) 228-9815 if you have any questions.

Respectfully,

FRIESS ENVIRONMENTAL CONSULTING, INC.

/water

Trenton J. Ott Project Manager

Ribert W. Frieseke

Richard W. Frieseke, P.E. President



# Table A.4.b. Sub-Slab Vapor VOC Analytical Results Former Saukville Fabricare Property Saukville, Wisconsin

		Sampling	cis-1,2- DCE	trans-1,2- DCE	PCE	TCE	Vinyl Chloride
Sample L	ocation	Date	(µg/m*)	(µg/m <sup>*</sup> )	(µg/m*)	(µg/m <sup>*</sup> )	(µg/m*)
VP-1	dry cleaner	10/3/07	<84.0	<160	<u>3,630</u>	<110	<53.0
VP-1R	dry cleaner	4/16/09	<3.05	<5.94	<u>2,481,348</u>	<84,872	<1.92
		10/12/17	1.43	1.43	<u>7,760</u>	5.90	0.913
VP-2	dry cleaner	10/3/07	<95.0	<180	<u>4,610</u>	<130	<60.0
VP-3	east hallway	10/3/07	<71.0	<140	<u>4,360</u>	<96.0	<44.0
VP-4	east hallway	10/3/07	<95.0	<180	<u>4,850</u>	<130	<60.0
VP-4R	east hallway	4/16/09	<2.77	<5.15	<u>13,898</u>	<3.76	<1.74
VP-5	mid coin-op	10/3/07	<3,300	<6,300	<u>39,800</u>	<4,400	<2,100
VP-5R	mid coin-op	4/16/09	<2.77	<5.15	<u>922,031</u>	<u>135</u>	<1.74
		7/12/10	<5.94	<5.94	1,254	<8.06	<3.83
VP-6	west dance studio	10/3/07	<66.0	<130	<u>5,490</u>	<90.0	<42.0
VP-6R	west dance studio	4/16/09	<2.77	<5.15	<u>1,817</u>	<3.76	<1.74
		10/12/17	1.53	1.53	664	2.03	0.953
VP-7	east coin-op	4/16/09	<2.77	<5.15	<u>546,439</u>	<u>155</u>	<1.74
		7/12/10	<6.74	<6.74	60.34	<9.13	<4.34
VP-8	west coin-op	4/16/09	204	<5.15	<u>59,051</u>	<u>145</u>	<1.74
VP-9	east dance studio	4/16/09	<2.77	<5.15	<u>99,661</u>	10.74	<1.74
		10/12/17	1.43	1.43	<u>1,430</u>	1.83	0.873
VP-10	north vacant space	4/16/09	<2.77	<5.15	<u>3,281</u>	5.10	<1.74
VP-11	flooring company	4/16/09	<3.05	<5.94	93.56	<4.14	<1.92
VP-12	restaurant	4/16/09	<2.77	<5.15	<u>101,017</u>	5.00	<1.74
VP-12R		10/12/17	1.33	1.33	<u>2,090</u>	1.83	0.843
VP-13	flooring company	10/12/17	1.43	1.43	283	0.86 J	0.913
VP-14	south medical	10/22/23	<1.97	<2.31	<2.78	<2.37	<1.48
		12/22/23	<1.97	<2.31	<2.78	<2.37	<1.48
VP-15	north subway	10/22/23	<1.97	<2.31	<2.78	<2.37	<1.48
		12/22/23	<1.97	<2.31	<2.78	<2.37	<1.48
Sewer 1	east cleanout	10/22/23	<1.97	<2.31	<2.78	<2.37	<1.48
Sewer 2	west cleanout	10/22/23	<1.97	<2.31	<2.78	<2.37	<1.48
Residentia	al VRSLs (µg/m3)	-	NS	NS	1,400	70	57
Small Cor	nmercial VRSLs (µg/m3	3)	NS	NS	6,000	290	930
Large Cor	mmercial VRSLs (μg/m <sup>3</sup>	3)	NS	NS	18,000	880	2,800

Notes:

1. DNR Vapor Risk Screening Levels (VRSLs) are from U.S. EPA tables (updated November 2017)

2. Concentrations that exceed their respective residential DNR VRSLs are underlined.

3. Concentrations that exceed their respective small commercial DNR VRSLs are in red.

4. Concentrations that exceed their respective large commercial DNR VRSLs are in red bold.

5. The VMS was operational from November 17, 2009, to February 28, 2017, and restarted on June 20,

# Synergy Environmental Lab, LLC.

1990 Prospect Ct., Appleton, WI 54914 \*P 920-830-2455 \* F 920-733-0631

TRENTON OTT FEC, INC. 6635 N. SIDNEY PLACE MILWAUKEE, WI 53209

### Report Date 06-Nov-23

Project Name Project #	SAUKVILLI 041101	E		<b>Invoice #</b> E43114													
Lab Code Sample ID Sample Matrix Sample Date	5043114A SEWER CI Air 10/22/2023	LEANOUT 1															
		Result	Unit	LOD L	OQ I	Dil	Method	Ext Date	Run Date	Analyst	Code						
Organic Air Samples																	
cis-1,2-Dichloroethene		< 1.97	ug/m3	1.97	6.26	10	TO-15		11/4/2023	CJR	1						
trans-1,2-Dichloro	ethene	< 2.31	ug/m3	2.31	7.34	10	TO-15		11/4/2023	CJR	1						
Tetrachloroethene		< 2.78	ug/m3	2.78	8.84	10	TO-15		11/4/2023	CJR	1						
Trichloroethene (T	CE)	< 2.37	ug/m3	2.37	7.54	10	TO-15		11/4/2023	CJR	1						
Vinyl Chloride		< 1.48	ug/m3	1.48	4.72	10	TO-15		11/4/2023	CJR	1						
Lab Code	5043114B																
Sample ID Sample Matrix Sample Date	SEWER CI Air 10/22/2023	LEANOUT 2															
		Result	Unit	LOD L	OQ I	Dil	Method	Ext Date	Run Date	Analyst	Code						
Organic Air Samples																	
cis-1,2-Dichloroet	hene	< 1.97	ug/m3	1.97	6.26	10	TO-15		11/4/2023	CJR	1						
trans-1,2-Dichloro	ethene	< 2.31	ug/m3	2.31	7.34	10	TO-15		11/4/2023	CJR	1						
Tetrachloroethene		< 2.78	ug/m3	2.78	8.84	10	TO-15		11/4/2023	CJR	1						
Trichloroethene (T	CE)	< 2.37	ug/m3	2.37	7.54	10	TO-15		11/4/2023	CJR	1						
Vinyl Chloride		< 1.48	ug/m3	1.48	4.72	10	TO-15		11/4/2023	CJR	1						

Project Name Project #	oject NameSAUKVILLEInvoice # E43114oject #041101												
Lab Code Sample ID Sample Matrix Sample Date	5043114C VP-14 Air 10/22/2023												
		Result	Unit	LOD L	OQ D	Dil	Method	Ext Date	Run Date	Analyst	Code		
Organic Air Samples													
cis-1,2-Dichloroet	hene	< 1.97	ug/m3	1.97	6.26	10	TO-15		11/4/2023	CJR	1		
trans-1,2-Dichloro	bethene	< 2.31	ug/m3	2.31	7.34	10	TO-15		11/4/2023	CJR	1		
Tetrachloroethene		< 2.78	ug/m3	2.78	8.84	10	TO-15		11/4/2023	CJR	1		
Trichloroethene (7	TCE)	< 2.37	ug/m3	2.37	7.54	10	TO-15		11/4/2023	CJR	1		
Vinyl Chloride		< 1.48	ug/m3	1.48	4.72	10	TO-15		11/4/2023	CJR	1		
Lab Code	5043114D												
Sample ID	VP-15												
Sample Matrix	Air												
Sample Date	10/22/2023												
		Result	Unit	LOD L	OQ D	Dil	Method	Ext Date	Run Date	Analyst	Code		
Organic													
Air Samples													
cis-1,2-Dichloroet	hene	< 1.97	ug/m3	1.97	6.26	10	TO-15		11/4/2023	CJR	1		
trans-1,2-Dichloro	bethene	< 2.31	ug/m3	2.31	7.34	10	TO-15		11/4/2023	CJR	1		
Tetrachloroethene		< 2.78	ug/m3	2.78	8.84	10	TO-15		11/4/2023	CJR	1		
Trichloroethene (T	ICE)	< 2.37	ug/m3	2.37	7.54	10	TO-15		11/4/2023	CJR	1		
Vinyl Chloride		< 1.48	ug/m3	1.48	4.72	10	TO-15		11/4/2023	CJR	1		

**Invoice #** E43114

"J" Flag: Analyte detected between LOD and LOQ LOD Limit of Detection LOQ Limit of Quantitation
Code Comment
1 Laboratory QC within limits.

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

**Authorized Signature** 

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# Synergy Environmental Lab, LLC.

1990 Prospect Ct., Appleton, WI 54914 \*P 920-830-2455 \* F 920-733-0631

TRENTON OTT FEC, INC. 6635 N. SIDNEY PLACE MILWAUKEE, WI 53209

### **Report Date** 28-Dec-23

Project Name Project #	SAUKVILLE 041101	Ξ					Invo	<b>ice</b> # E433	81	
Lab Code	5043381A									
Sample ID	VP-14.									
Sample Matrix	Air									
Sample Date	12/22/2023									
		Result	Unit	LOD I	LOQ D	Dil	Method	Ext Date	Run Date Analyst	Code
Organic										
Air Samples										
cis-1,2-Dichloroet	thene	< 0.197	ug/m3	0.197	0.626	1	TO-15		12/27/2023 CJR	1
trans-1,2-Dichloro	bethene	< 0.231	ug/m3	0.231	0.734	1	TO-15		12/27/2023 CJR	1
Tetrachloroethene	,	< 0.278	ug/m3	0.278	0.884	1	TO-15		12/27/2023 CJR	1
Trichloroethene (	ГCE)	< 0.237	ug/m3	0.237	0.754	1	TO-15		12/27/2023 CJR	1
Vinyl Chloride		< 0.148	ug/m3	0.148	0.472	1	TO-15		12/27/2023 CJR	1
Lab Code	5043381B									
Sample ID	VP-15									
Sample Matrix	Air Air									
Sample Date	12/22/2023									
		Result	Unit	LOD I	LOQ D	Dil	Method	Ext Date	Run Date Analyst	Code
Organic										
Air Samples										
cis-1,2-Dichloroet	thene	< 0.197	ug/m3	0.197	0.626	1	TO-15		12/27/2023 CJR	1
trans-1,2-Dichloro	bethene	< 0.231	ug/m3	0.231	0.734	1	TO-15		12/27/2023 CJR	1
Tetrachloroethene		< 0.278	ug/m3	0.278	0.884	1	TO-15		12/27/2023 CJR	1
Trichloroethene (	ICE)	< 0.237	ug/m3	0.237	0.754	1	TO-15		12/27/2023 CJR	1
Vinyl Chloride		< 0.148	ug/m3	0.148	0.472	1	TO-15		12/27/2023 CJR	1

**Invoice #** E43381

"J" Flag: Analyte detected between LOD and LOQ LOD Limit of Detection LOQ Limit of Quantitation
Code Comment
1 Laboratory QC within limits.

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

**Authorized Signature** 

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