FRIESS ENVIRONMENTAL CONSULTING, INC.

RECEIVED

SEP 3 0 2019

DNR R&R

SOUTH CENTRAL REGION

September 27, 2019

Ms. Mabel Schumacher Kennel Club of Fort Atkinson 712 Oak Street Fort Atkinson, WI 53538

SUBJECT: Vapor Sampling Results - <u>Contaminant Detected Above DNR Screening</u> Level

PROPERTY: DB Oak (formerly Thomas Industries) ("DB Oak") 700-710 Oak Street, Fort Atkinson, Wisconsin (the "Property") DNR BRRTS # 02-28-176509

Dear Ms. Schumacher:

Included are the findings of a recent investigation on the Property by Friess Environmental Consulting, Inc. ("FEC"). This letter is a follow up to our phone message on September 26, 2019.

As you are aware, this investigation was conducted because of the potential for contaminant vapors from the Property, identified above, to migrate through soils, accumulate beneath the foundation of the Property, and possibly enter your indoor air. The contaminants of concern at the Property are tetrachloroethylene, trichloroethylene and vinyl chloride, commonly referred to as PCE, TCE and VC.

Test Results

On August 7, 2018 and April 26, 2019, FEC, an environmental consultant hired by Gardner Denver, Inc., installed sampling devices into the floor of a portion of the building foundation of the Property and collected soil vapor samples. The samples were then submitted to the laboratory for analysis of five (5) different volatile organic compounds, including PCE, TCE and VC.

The analysis detected PCE in soil gas (vapors) beneath the foundation floor at concentrations ranging from 20,100 ug/m³ to 47,000,000 ug/m³. The DNR sub-slab industrial risk vapor screening level ("VRSL") for PCE is 18,000 ug/m³.

The analysis detected TCE in soil gas (vapors) beneath the foundation floor at concentrations ranging from 9,700 ug/m³ to 2,920,000 ug/m³. The DNR sub-slab industrial VRSL for TCE is 880 ug/m³.

The analysis detected VC in soil gas (vapors) beneath the foundation floor at a concentration of $12,200 \text{ ug/m}^3$. The DNR sub-slab industrial VRSL for VC is 2,800 ug/m³.

Attached is a copy of the laboratory reports for the air sample(s) taken from beneath the building foundation at the Property, as well as a map showing the sampling locations, and a data table. I also enclose a copy of WDNR Publication RR-977, "Understanding Chemical Vapor Testing Results."

The DNR action level for PCE, TCE and VC is set to provide a threshold concentration for PCE, TCE and VC that is protective of human health over long-term exposure. It is the experience of DNR and the Wisconsin Department of Health Services (DHS) in investigating similar cases at other locations in the state that the potential health risk for you is low. The vapor levels measured in the sub-slab at the Property present a <u>long-term risk</u>, not an immediate one, to occupants of the building.

Even though your potential health risks are low, you may have questions about how breathing these vapors may affect your health. Please contact Curtis Hedman with DHS, who can address your health questions and concerns.

Next Steps

We recommend the following actions at this time:

We would like to collect an air sample from the indoor air of the Property and test this sample for PCE, TCE and VC, which will allow us to determine whether building occupants are breathing elevated PCE, TCE and VC vapors. This also allows us to assess how effectively the building foundation is blocking sub-slab vapors from entering your indoor air.

The Wisconsin DNR recommends that we install a sub-slab mitigation system to remove PCE, TCE and VC vapors from beneath the Property. This system is identical to that used for homes with high radon levels. The system diverts radon (or chemical vapors) from beneath the home and discharges them into the outdoor air, above the building's roofline, rendering them harmless. Once PCE, TCE and VC vapors are successfully removed from beneath the foundation floor, there will be no potential or actual health threat for you or your employees from that kind of exposure.

The Property owner will be contacted by FEC to schedule installation of the sub-slab mitigation system, and we are forwarding a letter to the owner with a First Request for Access to Install Mitigation System, as well as WDNR RR 5457 Template Access Agreement for VI Mitigation Installation. The cost of system installation will be paid by Gardner Denver, Inc.

Please feel free to contact me at the number below if you have any questions about these results.

Sincerely, FRIESS ENVIRONMENTAL CONSULTING, INC.

/watt

Trenton J. Ott Project Manager

Richard W. Frieseke

Richard W. Frieseke, P.E. President

cc: Curtis Hedman Wisconsin Dept. of Health Services 1 W. Wilson St. PO Box 2659 Madison, WI 53703 Alyssa Sellwood Wisconsin Dept. of Natural Resources RR/5 101 S. Webster St. PO Box 7921 Madison, WI 53707

WDNR Project Manager: Jeff Ackerman State of Wisconsin Department of Natural Resources 3911 Fish Hatchery Road Fitchburg, WI 53711-5397 608-275-3323

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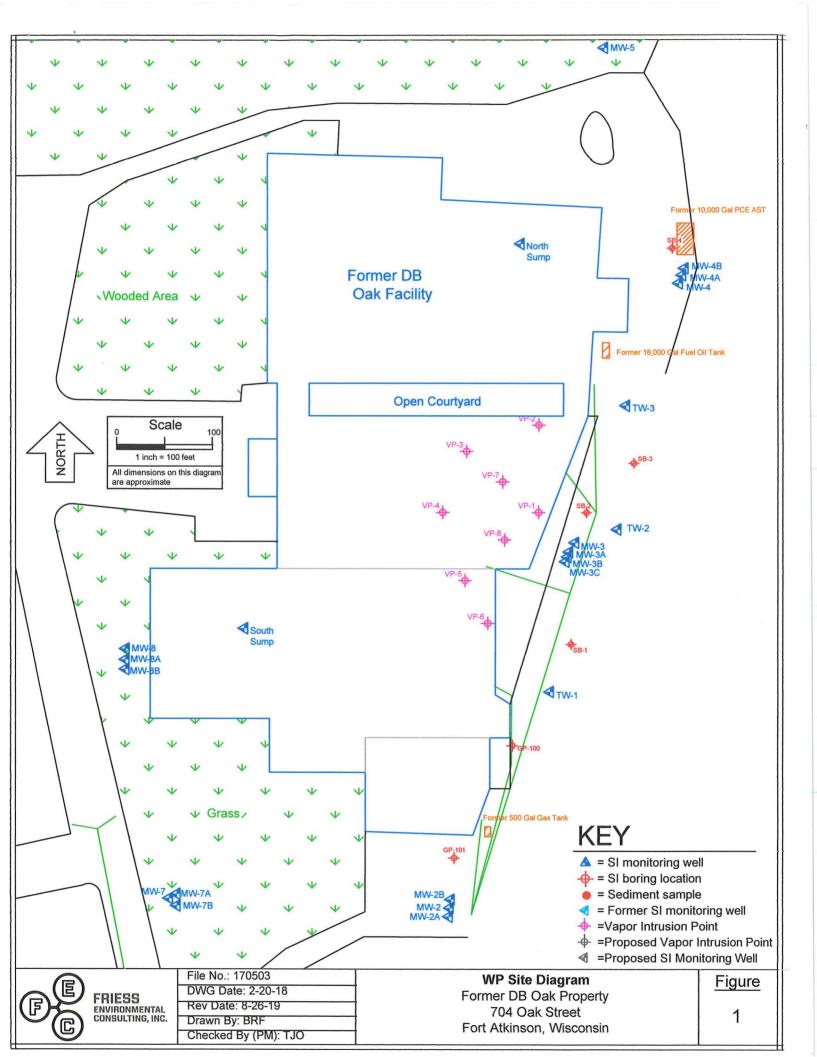
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Responsible Party Name and Contact Information: Gardner Denver, Inc. c/o Andrew Schiesl 222 East Erie Street Milwaukee, WI 53202 414-212-4700

Property Owner: DB Oak Limited Partnership

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CHAIN OF JSTODY RECORD

Lab I.D. # Account No. .



Chain # Nº 35/ 7

Page 1 of 1

Account No	Ouote No	.:	Environmenta					l Lab, Inc.					Sample Handling Request Bush Analysis Date Required										
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Lab I.D. Sample I.D.	Collection Date Time	Com	Grab	Filtered Y/N	No. of Containers	Samplo Type (Matrix)*	Preservation	DRO (Mod DRO	GHU (NIOD GHU	NITRATE/NITRITE	011.8.6	PAH (EPA 8270)	PCB PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED	VOC DW (EPA 524.2)	VOC (EPA 8260) 8. RCRA METALS	THE		Samuel Sciences	a Jugo and a second second	and the second second second second
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Synergy Environmental Lab, INC

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 17-Aug-18

3	3 OAK 0503						Invoi	ice # E350:	58		
Sample ID Sample Matrix A	5035058A VP-1 Air 8/7/2018										
		Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic											
Air Samples											
cis-1,2-Dichloroethene	:	820000	ug/m3	1103.2	3505.6	5600	TO-15		8/14/2018	CJR	1
trans-1,2-Dichloroethe	ne	19300	ug/m3	1293.6	4110.4	5600	TO-15		8/14/2018	CJR	1
Tetrachloroethene		5000000	ug/m3	38920	123760	140000) TO-15		8/14/2018	CJR	1
Trichloroethene (TCE))	2920000	ug/m3	33180	105560	140000) TO-15		8/14/2018	CJR	1
Vinyl Chloride		< 828.8	ug/m3	828.8	2643.2	5600	TO-15		8/14/2018	CJR	1

"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

Michaelflul

Lab Code	5036084E
Sample ID	VP-2
Sample Matrix	Air

Sample Date 4/26/2019

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	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Air Samples										
Chloroform	< 840	ug/m3	840	2668.4	2800	TO-15		5/6/2019	CJR	1
1,2-Dichloroethane	< 672	ug/m3	672	2136.4	2800	TO-15		5/6/2019	CJR	1
1,1-Dichloroethane	< 5:23.6	ug/m3	523.6	1668.8	2800	TO-15		5/6/2019	CJR	1
1,1-Dichloroethene	< 588	ug/m3	588	1870.4	2800	TO-15		5/6/2019	CJR	1
cis-1,2-Dichloroethene	< 551.6	ug/m3	551.6	1752.8	2800	TO-15		5/6/2019	CJR	1
trans-1,2-Dichloroethene	2330	ug/m3	646.8	2055.2	2800	TO-15		5/6/2019	CJR	1
1,1,2,2-Tetrachloroethane	< 910	ug/m3	910	2884	2800	TO-15		5/6/2019	CJR	1
Tetrachloroethene	212000	ug/m3	778.4	2475.2	2800	TO-15		5/6/2019	CJR	1
1,1,1-Trichloroethane	< 697.2	ug/m3	697.2	2220.4	2800	TO-15		5/6/2019	CJR	1
1,1,2-Trichloroethane	< 722.4	ug/m3	722.4	2301.6	2800	TO-15		5/6/2019	CJR	1
Trichloroethene (TCE)	34000	ug/m3	663.6	2111.2	2800	TO-15		5/6/2019	CJR	1
Vinyl Chloride	< 414.4	ug/m3	414.4	1321.6	2800	TO-15		5/6/2019	CJR	1

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	DB OAK 170503	Invoice # E36084										
Lab Code Sample ID Sample Matrix Sample Date	5036084F VP-4 Air 4/26/2019											
		Result .	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code	
Organic												
Air Samples												
Chloroform		< 840	ug/m3	840	2668.4	2800	TO-15		5/6/2019	CJR	1	
1,2-Dichloroethane		< 672	ug/m3	672	2136.4	2800	TO-15		5/6/2019	CJR	1	
1,1-Dichloroethane		< 523.6	ug/m3	523.6	1668.8	2800	TO-15		5/6/2019	CJR	1	
1,1-Dichloroethene		< 588	ug/m3	588	1870.4	2800	TO-15		5/6/2019	CJR	1	
cis-1,2-Dichloroeth	ene	< 551.6	ug/m3	551.6	1752.8	2800	TO-15		5/6/2019	CJR	1	
trans-1,2-Dichloroe	ethene	< 646.8	ug/m3	646.8	2055.2	2800	TO-15		5/6/2019	CJR	1	
i,1,2,2-Tetrachloro	oethane	< 910	ug/m3	910	2884	2800	TO-15		5/6/2019	CJR	1	
Tetrachloroethene		64000	ug/m3	778.4	2475.2	2800	TO-15		5/6/2019	CJR	1	
1,1,1-Trichloroetha	ine	< 697.2	ug/m3	697.2	2220.4	2800	TO-15		5/6/2019	CJR	1	
1,1,2-Trichloroetha	ine	< 7:!2.4	ug/m3	722.4	2301.6	2800	TO-15		5/6/2019	CJR	1	
Trichloroethene (T	CE)	9700	ug/m3	663,6	2111.2	2800	TO-15		5/6/2019	CJR	1	
Vinyl Chloride		< 414.4	ug/m3	414.4	1321.6	2800	TO-15		5/6/2019	CJR	1	
Lab Code	5036084G											
Sample ID	VP-6											
Sample Matrix												
Sample Date	4/26/2019											
		Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code	
Organic												
Air Samples		·										
Chloroform		< 15	ug/m3	15	47.65	50	TO-15		5/7/2019	CJR	1	
1,2-Dichloroethane		< 12	ug/m3	12	38.15	50	TO-15		5/7/2019	CJR	1	
1,1-Dichloroethane		< 9.35	ug/m3	9.35	29.8	50	TO-15		5/7/2019	CJR	1	
1,1-Dichloroethene		< 10.5	ug/m3	10.5	33,4	50	TO-15		5/7/2019	CJR	1	
cis-1,2-Dichloroeth	ene	< 9.85	ug/m3	9.85	31.3	50	TO-15		5/7/2019	CJR	1	
trans-1,2-Dichloroe	thene	< 11.55	ug/m3	11.55	36.7	50	TO-15		5/7/2019	CJR	1	
1,1,2,2-Tetrachloro		< 16.25	ug/m3	16.25	51.5	50	TO-15		5/7/2019	CJR	1	
Tetrachloroethene		20100	ug/m3	778.4	2475.2		TO-15		5/6/2019	CJR	1	
1,1,1-Trichloroetha	ine	< 12.45	ug/m3	12.45	39.65		TO-15		5/7/2019	CJR	1	
1,1,2-Trichloroetha		< 12.9	ug/m3	12.9	41.1	50	TO-15		5/7/2019	CJR	1	
Trichloroethene (T		204	ug/m3	11.85	37.7		TO-15		5/7/2019	CJR	1	
Vinyl Chloride	,	< 7.4	ug/m3	7.4	23.6		TO-15		5/7/2019	CJR	1	
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Invoice # E36084

"J" Flag: Analyte detected between LOD and LOQ LOD Limit of Detection

LOQ Limit of Quantitation

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Code Comment

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Authorized Signature

Michaelflul

Understanding Chemical Vapor Intrusion Testing Results

RR-977

October 2014

From the Lab to You

Chemical vapor samples were taken from underneath your house or building and possibly indoors as well. These samples have been tested by a certified laboratory and a report was issued. The Wisconsin Department of Natural Resources (DNR) uses these test results to determine if people in the building are being exposed to chemical vapors coming from nearby contaminated soil or groundwater, and to decide what, if any, action is needed to prevent this exposure.

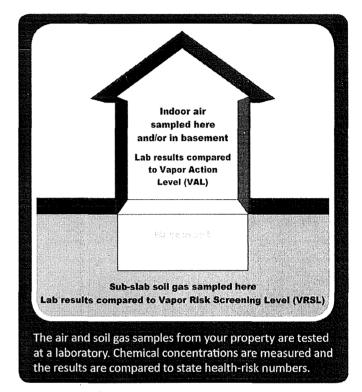
Indoor Air Testing Results

If indoor air samples were collected in your house or building, test results from the lab will be compared to the state Vapor Action Level (VAL) for chemicals of concern. The VAL is a chemical compound's numerical value that represents a health hazard risk to no more than 1 in 100,000 people during a lifetime of exposure. If test results show chemical concentrations in your air below the VAL then adverse health effects are extremely rare, even if you were to breathe the chemical at this concentration for your entire life.

Test results showing chemical concentrations in the air at or above the VAL prompt DNR to recommend that exposure to these chemical vapors be reduced. If test results show concentrations significantly above the VAL, or more than one type of chemical vapor is identified in your indoor air, the risk from exposure increases. If the concentration of any indoor chemical vapor greatly exceeds the VAL, DNR is concerned about even short-term exposure and will typically require immediate action to address the problem.

The VAL for each chemical is set by scientific research. It is protective of all people, including those who are most susceptible to adverse health effects.

If test results identify chemicals in your air that are not present in nearby soil or groundwater contamination, it is likely that these vapors are coming from some product or activity in or near your house or building. Many everyday consumer products (e.g., cleaners, solvents, polish, adhesives, lubricants, aerosols, insect repellants, etc.); combustion processes (e.g., smoking, home heating); fuels in .attached garages; dry cleaned clothing or draperies; and occupant activities (e.g., craft hobbies), also release chemical vapors into the air.



Sub-slab Soil Gas Testing Results

Soil gas samples were collected from the ground beneath the concrete slab of your building foundation or basement. The lab measured the concentrations of various chemicals in these samples. DNR compares these measurements to the state Vapor Risk Screening Level (VRSL), which identifies the concentration of a chemical in soil gas that scientific research suggests can be a health risk if vapor enters a building. If soil gas measurements exceed the VRSL for a chemical of concern, action to reduce exposure is strongly recommended.

The VRSL is a higher number (higher chemical concentration) than the VAL because it is presumed that concrete building foundations and basement walls will prevent most soil gas from entering a building. Further, any soil gas that does enter a building through cracks, holes, sump pumps, drains, etc., will be diluted to some extent by the indoor air. So, people inside will not be breathing air that includes the full concentration of chemical vapors that exist in the ground.



Wisconsin Department of Natural Resources P.O. Box 7921, Madison, WI 53707 dnr.wi.gov, search "Brownfields"



DNR generally relies on the test results of the sub-slab soil gas samples when determining what, if any, action should be taken related to chemical vapors coming from nearby soil or groundwater contamination. Indoor air quality is highly variable, and it is difficult to make a definitive decision about vapor intrusion based on indoor air sampling alone.

Follow-Up Actions

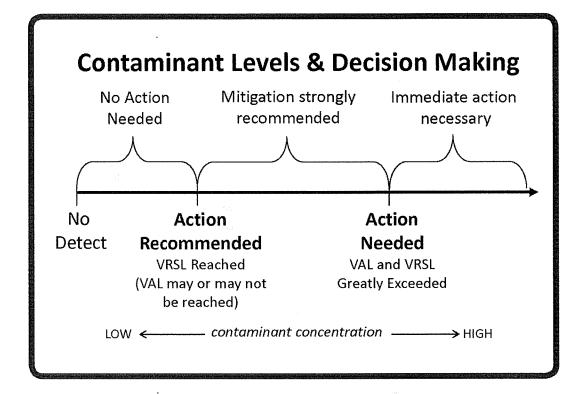
If your test results are less than a VAL for indoor air, or a VRSL for sub-slab soil gas, then the air in the house or building should not present a health concern. Follow-up sampling and testing may be necessary to confirm the results, but no other action is typically suggested.

When test results show soil gas chemical concentrations above a VRSL, both DNR and the Wisconsin Department of

Health Services recommend that owners take action to reduce potential exposure. This typically involves installing a vapor mitigation system that vents chemical vapors from beneath your home or building to the outdoors, similar to a radon mitigation system.

If indoor air concentrations exceed a VAL, but sub-slab concentrations are less than a VRSL, then the chemical vapors are most likely coming from indoor sources. Steps should be taken by the house or building owner to identify the products and practices causing the problem and implement appropriate remedies.

If soil gas mitigation is recommended, a representative of the party who is responsible for the soil or groundwater contamination will contact you to discuss your options.



<u>A Note about Measurement Units:</u> The lab report may include some unfamiliar technical language. The most important point to note is whether or not the test result for a specific chemical exceeds a VAL or VRSL, which are also sometimes referred to, generically, as "screening levels."

The concentration of gaseous pollutants in air is typically described in two different ways: 1) as units of mass per volume, where $\mu g/m3$ represents micrograms of gaseous pollutant per cubic meter of ambient air; and 2) as parts per billion by volume (ppbv), where the volume of a gaseous pollutant is compared to a set volume of ambient air. These are the numbers that are compared to the VAL and VRSL.

For more information, visit dnr.wi.gov/topic/Brownfields/Vapor.html

This document contains information about certain state statutes and administrative rules but does not necessarily include all of the details found in the statutes and rules. Readers should consult the actual language of the statutes and rules to answer specific questions. The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services, and functions under an Affirmative Action Plan. If you have any questions, please write to Equal Opportunity Office, Department of Interior, Washington, D.C. 20240. This publication is available in alternative format upon request. Please call 608-267-3543 for more information.



September 27, 2019

Mr. Mike Vandermause PBC Atlas Mike, LLC P.O. Box 608 Fort Atkinson, WI 53538 RÉCEIVED SEP 3 0 2019 DNR R&R SOUTH CENTRAL REGION

SUBJECT: Vapor Sampling Results - <u>Contaminant Detected Above DNR Screening</u> Level PROPERTY: DB Oak (formerly Thomas Industries) ("DB Oak")

700-710 Oak Street, Fort Atkinson, Wisconsin (the "Property") DNR BRRTS # 02-28-176509

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Test Results

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The analysis detected PCE in soil gas (vapors) beneath the foundation floor at concentrations ranging from 20,100 ug/m³ to 47,000,000 ug/m³. The DNR sub-slab industrial risk vapor screening level ("VRSL") for PCE is 18,000 ug/m³.

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Attached is a copy of the laboratory reports for the air sample(s) taken from beneath the building foundation at the Property, as well as a map showing the sampling locations, and a data table. I also enclose a copy of WDNR Publication RR-977, "Understanding Chemical Vapor Testing Results."

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Even though your potential health risks are low, you may have questions about how breathing these vapors may affect your health. Please contact Curtis Hedman with DHS, who can address your health questions and concerns.

Next Steps

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Please feel free to contact me at the number below if you have any questions about these results.

Sincerely, FRIESS ENVIRONMENTAL CONSULTING, INC.

/wattri Trenton J. Off

Project Manager

Richard W. Frieseke

Richard W. Frieseke, P.E. President

cc: Curtis Hedman Wisconsin Dept. of Health Services 1 W. Wilson St. PO Box 2659 Madison, WI 53703 Alyssa Sellwood Wisconsin Dept. of Natural Resources RR/5 101 S. Webster St. PO Box 7921 Madison, WI 53707

WDNR Project Manager: Jeff Ackerman State of Wisconsin Department of Natural Resources 3911 Fish Hatchery Road Fitchburg, WI 53711-5397 608-275-3323

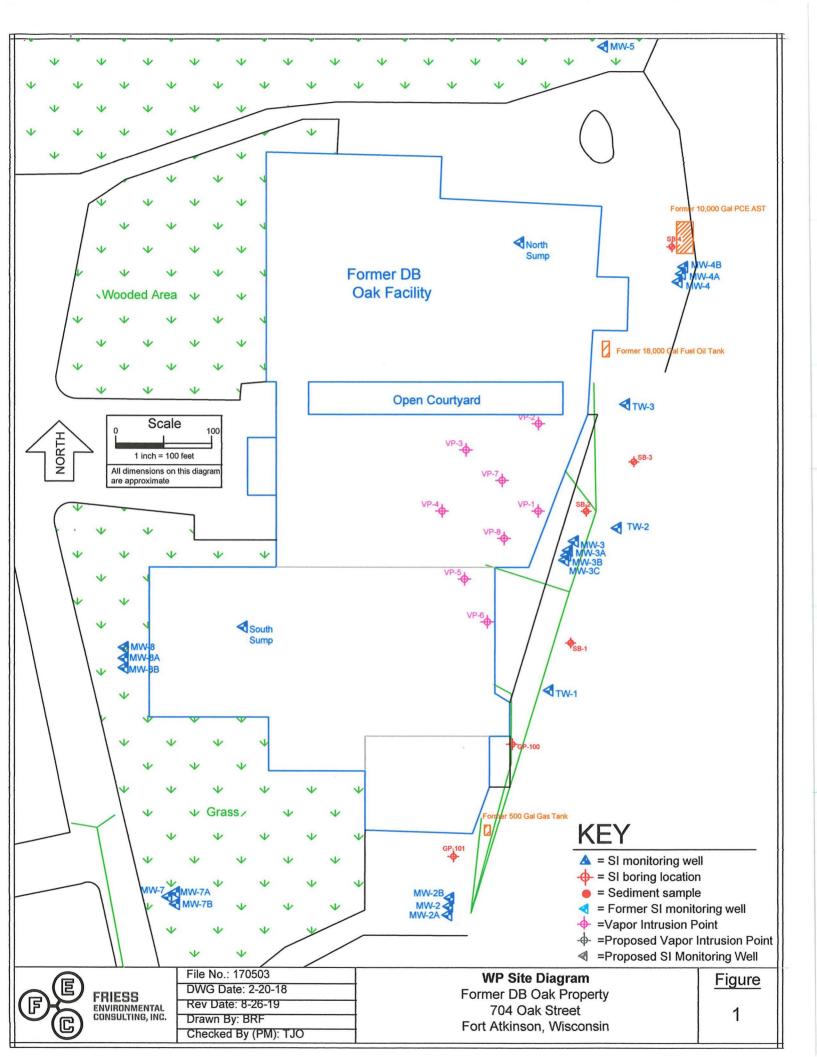
Responsible Party Name and Contact Information: Gardner Denver, Inc. c/o Andrew Schiesl 222 East Erie Street Milwaukee, WI 53202 414-212-4700

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Property Owner: DB Oak Limited Partnership

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A.4. Vapor Analytical Table (1 of 2) VOC Analytical Results - Sub-Slab Vapor Samples Former DB Oak Property Fort Atkinson, Wisconsin

Sample Location	Sampling Date	cis-1,2- DCE (ug/m³)	trans-1,2- DCE (ug/m³)	PCE (ug/m ³)	TCE (ug/m ³)	Vinyl Chloride (ug/m³)
VP-1	8/7/18	820,000	19,300	<u>5,000,000</u>	2,920,000	<828.8
VP-2	4/26/19	<551.6	2,330	<u>212,000</u>	<u>34,000</u>	<414.4
VP-3	4/26/19	NS	NS	NS	NS	NS
VP-4	4/26/19	<551.6	<646.8	<u>64,000</u>	<u>9,700</u>	<414.4
VP-5	4/26/19	NS	NS	NS	NS	NS
VP-6	4/26/19	<9.85	<11.55	<u>20,100</u>	<u>204</u>	<7.40
VP-7	4/26/19	<551.6	<646.8	<u>153,000</u>	<u>23,700</u>	<414.4
VP-8	4/26/19	910,000	9,700	47,000,000	<u>580,000</u>	<u>12,200</u>
Residential	VRSLs	NS	NS	1,400	70	57
Commercia	l VRSLs	NS	NS	6,000	293	933
Industrial V	'RSLs	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.

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Synergy Environmental Lab, INC

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 17-Aug-18

Project Name Proiect #	DB OAK 170503	Invoice # E35058											
Lab Code Sample ID Sample Matrix Sample Date	5035058A VP-1 Air 8/7/2018												
		Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code		
Organic													
Air Samples													
cis-1,2-Dichloroet	hene	820000	ug/m3	1103.2	3505.6	5600	TO-15		8/14/2018	CJR	1		
trans-1,2-Dichloro	ethene	19300	ug/m3	1293.6	4110.4	5600	TO-15		8/14/2018	CJR	1		
Tetrachloroethene		5000000	ug/m3	38920	123760	140000	TO-15		8/14/2018	CJR	1		
Trichloroethene (T	TCE)	2920000	ug/m3	33180	105560	140000	TO-15		8/14/2018	CJR	1		
Vinyl Chloride		< 828.8	ug/m3	828.8	2643.2	5600	TO-15		8/14/2018	CJR	1		
"J" Flag:	Analyte detected	between LQD and I	LÓQ	I	LOD Limit	of Detecti	on	LOQ L	mit of Quantita	tion			

Code Comment

Laboratory QC within limits. 1

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

Michaelfler

Lab Code	5036084E
Sample ID	VP-2

Sample Matrix Air

Sample Date 4/26/2019

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Air Samples										
Chloroform	< 840	ug/m3	840	2668.4	2800	TO-15		5/6/2019	CJR	1
1,2-Dichloroethane	< 672	ug/m3	672	2136.4	2800	TO-15		5/6/2019	CJR	1
1,1-Dichloroethane	< 523.6	ug/m3	523.6	1668.8	2800	TO-15		5/6/2019	CJR	1
1,1-Dichloroethene	< 588	ug/m3	588	1870.4	2800	TO-15		5/6/2019	CJR	1
cis-1,2-Dichloroethene	< 551.6	ug/m3	551.6	1752.8	2800	TO-15		5/6/2019	CJR	1
trans-1,2-Dichloroethene	2330	ug/m3	646.8	2055.2	2800	TO-15		5/6/2019	CJR	1
1,1,2,2-Tetrachloroethane	< 910	ug/m3	910	2884	2800	TO-15		5/6/2019	CJR	1
Tetrachloroethene	212000	ug/m3	778.4	2475.2	2800	TO-15		5/6/2019	CJR	1
1,1,1-Trichloroethane	< 697.2	ug/m3	697.2	2220.4	2800	TO-15		5/6/2019	CJR	1
1,1,2-Trichloroethane	< 722.4	ug/m3	722.4	2301.6	2800	TO-15		5/6/2019	CJR	1
Trichloroethene (TCE)	34000	ug/m3	663.6	2111.2	2800	TO-15		5/6/2019	CJR	1
Vinyl Chloride	< 414.4	ug/m3	414.4	1321.6	2800	TO-15		5/6/2019	CJR	I

WI DNR Lab Certification # 445037560

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Project Name
Project #DB OAK
170503Lab Code5036084FSample IDVD 4

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Invoice # E36084

Sample ID Sample Matrix Sample Date	VP-4 Air 4/26/2019										
		Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic											
Air Samples											
Chloroform		< 8.10	ug/m3	840	2668.4	2800	TO-15		5/6/2019	CJR	1
1,2-Dichloroethane		< 672	ug/m3	672	2136.4	2800	TO-15		5/6/2019	CJR	1
1,1-Dichloroethane		< 523.6	ug/m3	523.6	1668.8	2800	TO-15		5/6/2019	CJR	1
1,1-Dichloroethene		< 588	ug/m3	588	1870.4	2800	TO-15		5/6/2019	CJR	1
cis-1,2-Dichloroeth	ene	< 551.6	ug/m3	551.6	1752.8	2800	TO-15		5/6/2019	CJR	1
trans-1,2-Dichloroe	thene	< 646.8	ug/m3	646.8	2055.2	2800	TO-15		5/6/2019	CJR	1
1,1,2,2-Tetrachloro	ethane	< 910	ug/m3	910	2884	2800	TO-15		5/6/2019	CJR	1
Tetrachloroethene		64000	ug/m3	778.4	2475.2	2800	TO-15		5/6/2019	CJR	1
1,1,1-Trichloroetha	ne	< 697.2	ug/m3	697.2	2220.4	2800	TO-15		5/6/2019	CJR	1
1,1,2-Trichloroetha	ne	< 722.4	ug/m3	722.4	2301.6	2800	TO-15		5/6/2019	CJR	1
Trichloroethene (To	CE)	9700	ug/m3	663.6	2111.2	2800	TO-15		5/6/2019	CJR	1
Vinyl Chloride		< 414.4	ug/m3	414.4	1321.6	2800	TO-15		5/6/2019	CJR	1
Lab Code Sample ID	5036084G VP-6										

Sample MatrixAirSample Date4/26/2019

•	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Air Samples										
Chloroform	< 15	ug/m3	15	47.65	50	TO-15		5/7/2019	CJR	1
1,2-Dichloroethane	< 1?	ug/m3	12	38.15	50	TO-15		5/7/2019	CJR	1
1, I-Dichloroethane	< 9.35	ug/m3	9.35	29.8	50	TO-15		5/7/2019	CJR	1
1,1-Dichloroethene	< 10.5	ug/m3	10.5	33.4	50	TO-15		5/7/2019	CJR	1
cis-1,2-Dichloroethene	< 9.85	ug/m3	9.85	31.3	50	TO-15		5/7/2019	CJR	1
trans-1,2-Dichloroethene	< 11.55	ug/m3	11.55	36.7	50	TO-15		5/7/2019	CJR	1
1,1,2,2-Tetrachloroethane	< 16.25	ug/m3	16.25	51.5	50	TO-15		5/7/2019	CJR	1
Tetrachloroethene	20100	ug/m3	778.4	2475.2	2800	TO-15		5/6/2019	CJR	1
1,1,1-Trichloroethane	< 12.45	ug/m3	12.45	39.65	50	TO-15		5/7/2019	CJR	1
1,1,2-Trichloroethane	< 12.9	ug/m3	12.9	41.1	50	TO-15		5/7/2019	CJR	1
Trichloroethene (TCE)	204 .	ug/m3	11.85	37.7	50	TO-15		5/7/2019	CJR	1
Vinyl Chloride	< 7.4	ug/m3	7.4	23.6	50	TO-15		5/7/2019	CJR	1

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Project Name	DB OAK
Project #	170503

Invoice # E36084

LOQ Limit of Quantitation

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"J" Flag: Analyte detected between LOD and LOQ LOD Limit of Detection

 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

Michaelplel

Understanding Chemical Vapor Intrusion Testing Results

RR-977

October 2014

From the Lab to You

Chemical vapor samples were taken from underneath your house or building and possibly indoors as well. These samples have been tested by a certified laboratory and a report was issued. The Wisconsin Department of Natural Resources (DNR) uses these test results to determine if people in the building are being exposed to chemical vapors coming from nearby contaminated soil or groundwater, and to decide what, if any, action is needed to prevent this exposure.

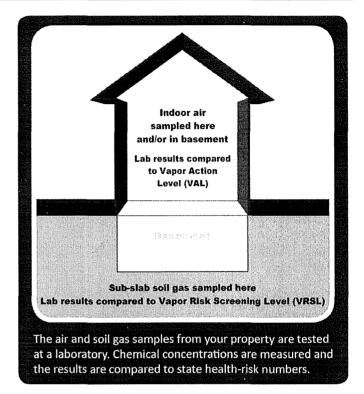
Indoor Air Testing Results

If indoor air samples were collected in your house or building, test results from the lab will be compared to the state Vapor Action Level (VAL) for chemicals of concern. The VAL is a chemical compound's numerical value that represents a health hazard risk to no more than 1 in 100,000 people during a lifetime of exposure. If test results show chemical concentrations in your air below the VAL then adverse health effects are extremely rare, even if you were to breathe the chemical at this concentration for your entire life.

Test results showing chemical concentrations in the air at or above the VAL prompt DNR to recommend that exposure to these chemical vapors be reduced. If test results show concentrations significantly above the VAL, or more than one type of chemical vapor is identified in your indoor air, the risk from exposure increases. If the concentration of any indoor chemical vapor greatly exceeds the VAL, DNR is concerned about even short-term exposure and will typically require immediate action to address the problem.

The VAL for each chemical is set by scientific research. It is protective of all people, including those who are most susceptible to adverse health effects.

If test results identify chemicals in your air that are not present in nearby soil or groundwater contamination, it is likely that these vapors are coming from some product or activity in or near your house or building. Many everyday consumer products (e.g., cleaners, solvents, polish, adhesives, lubricants, aerosols, insect repellants, etc.); combustion processes (e.g., smoking, home heating); fuels in attached garages; dry cleaned clothing or draperies; and occupant activities (e.g., craft hobbies), also release chemical vapors into the air.



Sub-slab Soil Gas Testing Results

Soil gas samples were collected from the ground beneath the concrete slab of your building foundation or basement. The lab measured the concentrations of various chemicals in these samples. DNR compares these measurements to the state Vapor Risk Screening Level (VRSL), which identifies the concentration of a chemical in soil gas that scientific research suggests can be a health risk if vapor enters a building. If soil gas measurements exceed the VRSL for a chemical of concern, action to reduce exposure is strongly recommended.

The VRSL is a higher number (higher chemical concentration) than the VAL because it is presumed that concrete building foundations and basement walls will prevent most soil gas from entering a building. Further, any soil gas that does enter a building through cracks, holes, sump pumps, drains, etc., will be diluted to some extent by the indoor air. So, people inside will not be breathing air that includes the full concentration of chemical vapors that exist in the ground.



Wisconsin Department of Natural Resources P.O. Box 7921, Madison, WI 53707 dnr.wi.gov, search "Brownfields"



DNR generally relies on the test results of the sub-slab soil gas samples when determining what, if any, action should be taken related to chemical vapors coming from nearby soil or groundwater contamination. Indoor air quality is highly variable, and it is difficult to make a definitive decision about vapor intrusion based on indoor air sampling alone.

Follow-Up Actions

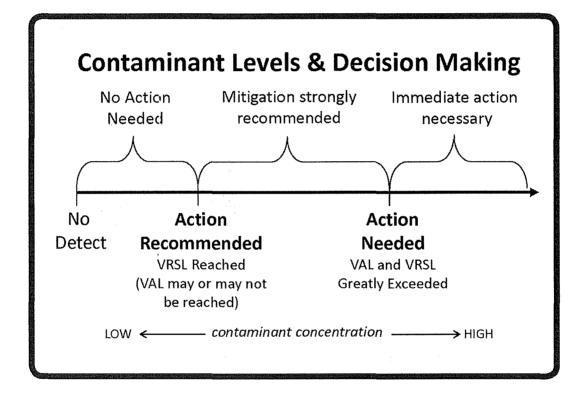
If your test results are less than a VAL for indoor air, or a VRSL for sub-slab soil gas, then the air in the house or building should not present a health concern. Follow-up sampling and testing may be necessary to confirm the results, but no other action is typically suggested.

When test results show soil gas chemical concentrations above a VRSL, both DNR and the Wisconsin Department of

Health Services recommend that owners take action to reduce potential exposure. This typically involves installing a vapor mitigation system that vents chemical vapors from beneath your home or building to the outdoors, similar to a radon mitigation system.

If indoor air concentrations exceed a VAL, but sub-slab concentrations are less than a VRSL, then the chemical vapors are most likely coming from indoor sources. Steps should be taken by the house or building owner to identify the products and practices causing the problem and implement appropriate remedies.

If soil gas mitigation is recommended, a representative of the party who is responsible for the soil or groundwater contamination will contact you to discuss your options.



<u>A Note about Measurement Units</u>: The lab report may include some unfamiliar technical language. The most important point to note is whether or not the test result for a specific chemical exceeds a VAL or VRSL, which are also sometimes referred to, generically, as "screening levels."

The concentration of gaseous pollutants in air is typically described in two different ways: 1) as units of mass per volume, where $\mu g/m3$ represents micrograms of gaseous pollutant per cubic meter of ambient air; and 2) as parts per billion by volume (ppbv), where the volume of a gaseous pollutant is compared to a set volume of ambient air. These are the numbers that are compared to the VAL and VRSL.

For more information, visit dnr.wi.gov/topic/Brownfields/Vapor.html

This document contains information about certain state statutes and administrative rules but does not necessarily include all of the details found in the statutes and rules. Readers should consult the actual language of the statutes and rules to answer specific questions. The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services, and functions under an Affirmative Action Plan. If you have any questions, please write to Equal Opportunity Office, Department of Interior, Washington, D.C. 20240. This publication is available in alternative format upon request. Please call 608-267-3543 for more information.



September 27, 2019

Mr. Bill Myers 704 Oak Street Fort Atkinson, WI 53538

SUBJECT: Vapor Sampling Results - <u>Contaminant Detected Above DNR Screening</u> Level

PROPERTY: DB Oak (formerly Thomas Industries) ("DB Oak") 700-710 Oak Street, Fort Atkinson, Wisconsin (the "Property") DNR BRRTS # 02-28-176509

Dear Mr. Myers:

Included are the findings of a recent investigation on the Property by Friess Environmental Consulting, Inc. ("FEC"). This letter is a follow up to our phone message on September 26, 2019.

As you are aware, this investigation was conducted because of the potential for contaminant vapors from the Property, identified above, to migrate through soils, accumulate beneath the foundation of the Property, and possibly enter your indoor air. The contaminants of concern at the Property are tetrachloroethylene, trichloroethylene and vinyl chloride, commonly referred to as PCE, TCE and VC.

Test Results

On August 7, 2018 and April 26, 2019, FEC, an environmental consultant hired by Gardner Denver, Inc., installed sampling devices into the floor of a portion of the building foundation of the Property and collected soil vapor samples. The samples were then submitted to the laboratory for analysis of five (5) different volatile organic compounds, including PCE, TCE and VC.

The analysis detected PCE in soil gas (vapors) beneath the foundation floor at concentrations ranging from 20,100 ug/m³ to 47,000,000 ug/m³. The DNR sub-slab industrial risk vapor screening level ("VRSL") for PCE is 18,000 ug/m³.

The analysis detected TCE in soil gas (vapors) beneath the foundation floor at concentrations ranging from 9,700 ug/m³ to 2,920,000 ug/m³. The DNR sub-slab industrial VRSL for TCE is 880 ug/m³.

The analysis detected VC in soil gas (vapors) beneath the foundation floor at a concentration of $12,200 \text{ ug/m}^3$. The DNR sub-slab industrial VRSL for VC is 2,800 ug/m³.

Attached is a copy of the laboratory reports for the air sample(s) taken from beneath the building foundation at the Property, as well as a map showing the sampling locations, and a data table. I also enclose a copy of WDNR Publication RR-977, "Understanding Chemical Vapor Testing Results."

The DNR action level for PCE, TCE and VC is set to provide a threshold concentration for PCE, TCE and VC that is protective of human health over long-term exposure. It is the experience of DNR and the Wisconsin Department of Health Services (DHS) in investigating similar cases at other locations in the state that the potential health risk for you is low. The vapor levels measured in the sub-slab at the Property present a <u>long-term risk</u>, not an immediate one, to occupants of the building.

Even though your potential health risks are low, you may have questions about how breathing these vapors may affect your health. Please contact Curtis Hedman with DHS, who can address your health questions and concerns.

Next Steps

We recommend the following actions at this time:

We would like to collect an air sample from the indoor air of the Property and test this sample for PCE, TCE and VC, which will allow us to determine whether building occupants are breathing elevated PCE, TCE and VC vapors. This also allows us to assess how effectively the building foundation is blocking sub-slab vapors from entering your indoor air.

The Wisconsin DNR recommends that we install a sub-slab mitigation system to remove PCE, TCE and VC vapors from beneath the Property. This system is identical to that used for homes with high radon levels. The system diverts radon (or chemical vapors) from beneath the home and discharges them into the outdoor air, above the building's roofline, rendering them harmless. Once PCE, TCE and VC vapors are successfully removed from beneath the foundation floor, there will be no potential or actual health threat for you or your employees from that kind of exposure.

The Property owner will be contacted by FEC to schedule installation of the sub-slab mitigation system, and we are forwarding a letter to the owner with a First Request for Access to Install Mitigation System, as well as WDNR RR 5457 Template Access Agreement for VI Mitigation Installation. The cost of system installation will be paid by Gardner Denver, Inc.

Please feel free to contact me at the number below if you have any questions about these results.

Sincerely, FRIESS ENVIRONMENTAL CONSULTING, INC.

Juitte Trenton J. Off

Project Manager

Richard W. Frieseke

Richard W. Frieseke, P.E. President

cc: Curtis Hedman Wisconsin Dept. of Health Services 1 W. Wilson St. PO Box 2659 Madison, WI 53703 Alyssa Sellwood Wisconsin Dept. of Natural Resources RR/5 101 S. Webster St. PO Box 7921 Madison, WI 53707

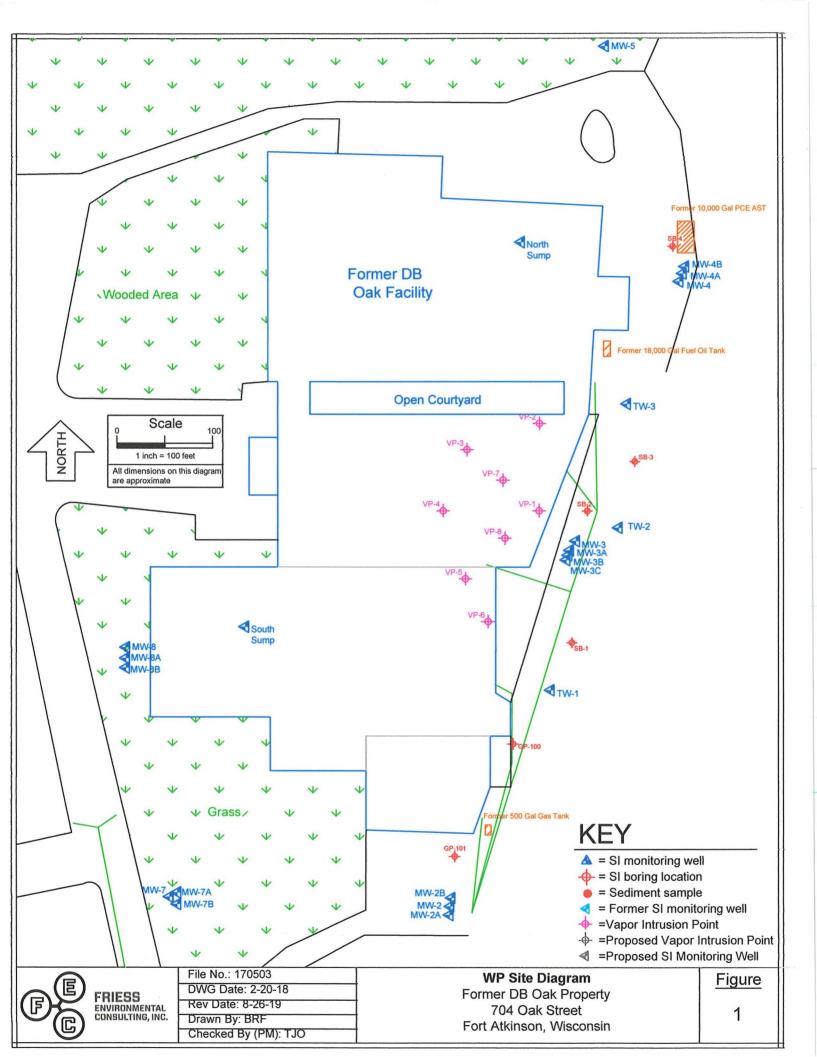
WDNR Project Manager: Jeff Ackerman State of Wisconsin Department of Natural Resources 3911 Fish Hatchery Road Fitchburg, WI 53711-5397 608-275-3323 .

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Responsible Party Name and Contact Information: Gardner Denver, Inc. c/o Andrew Schiesl 222 East Erie Street Milwaukee, WI 53202 414-212-4700

Property Owner: DB Oak Limited Partnership

42356557



A.4. Vapor Analytical Table (1 of 2) VOC Analytical Results - Sub-Slab Vapor Samples Former DB Oak Property Fort Atkinson, Wisconsin

Sample Location	Sampling Date	cis-1,2- DCE (ug/m³)	trans-1,2- DCE (ug/m³)	PCE (ug/m ³)	TCE (ug/m ³)	Vinyl Chloride (ug/m³)
VP-1	8/7/18	820,000	19,300	5,000,000	2,920,000	<828.8
VP-2	4/26/19	<551.6	2,330	<u>212,000</u>	<u>34,000</u>	<414.4
VP-3	4/26/19	NS	NS	NS	NS	NS
VP-4	4/26/19	<551.6	<646.8	<u>64,000</u>	<u>9,700</u>	<414.4
VP-5	4/26/19	NS	NS	NS	NS	NS
VP-6	4/26/19	<9.85	<11.55	<u>20,100</u>	<u>204</u>	<7.40
VP-7	4/26/19	<551.6	<646.8	<u>153,000</u>	<u>23,700</u>	<414.4
VP-8	4/26/19	910,000	9,700	47,000,000	<u>580,000</u>	<u>12,200</u>
Residential	VRSLs	NS	NS	1,400	70	57
Commercial VRSLs		NS	NS	6,000	293	933
Industrial V	'RSLs	NS	NS	18,000	880	2,800

Notes:

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

Concentrations that exceed their respective residential DNR VRSLs are <u>underlined</u>.
 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.

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Synergy Environmental Lab, INC

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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 17-Aug-18

Project Name Proiect #	DB OAK 170503						Invo	ice # E350	58		
Lab Code Sample ID Sample Matrix Sample Date	5035058A VP-1 Air 8/7/2018										
		Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic											
Air Samples											
cis-1,2-Dichloroeth	nene	820000	ug/m3	1103.2	3505.6	5600	TO-15		8/14/2018	CJR	1
trans-1,2-Dichloro	ethene	19300	ug/m3	1293.6	4110.4	5600	TO-15		8/14/2018	CJR	1
Tetrachloroethene		5000000	ug/m3	38920	123760	140000) TO-15		8/14/2018	CJR	1
Trichloroethene (T	CE)	2920000	ug/m3	33180	105560	140000) TO-15		8/14/2018	CJR	1
Vinyl Chloride		< 828.8	ug/m3	828,8	2643.2	5600	TO-15		8/14/2018	CJR	1

"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

Michaelfler

Lab Code Sample ID Sample Matrix Sample Date	5036084E VP-2 Air 4/26/2019	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic											
Air Samples											
Chloroform		< 840	ug/m3	840	2668.4	2800	TO-15		5/6/2019	CJR	1
1,2-Dichloroethane		< 672	ug/m3	672	2136.4	2800	TO-15		5/6/2019	CJR	1
1,1-Dichloroethane		< 523.6	ug/m3	523.6	1668.8	2800	TO-15		5/6/2019	CJR	1
1,1-Dichloroethene		< 588	ug/m3	588	1870.4	2800	TO-15		5/6/2019	CJR	1
cis-1,2-Dichloroethe	ene	< 551.6	ug/m3	551.6	1752.8	2800	TO-15		5/6/2019	CJR	1
trans-1,2-Dichloroet	thene	2330	ug/m3	646.8	2055.2	2800	TO-15		5/6/2019	CJR	1
1,1,2,2-Tetrachlorod	ethane	< 9.0	ug/m3	910	2884	2800	TO-15		5/6/2019	CJR	1
Tetrachloroethene		212000	ug/m3	778.4	2475.2	2800	TO-15		5/6/2019	CJR	1
1,1,1-Trichloroetha	ne	< 697.2	ug/m3	697.2	2220.4	2800	TO-15		5/6/2019	CJR	1
1,1,2-Trichloroetha	ne	< 722.4	ug/m3	722.4	2301.6	2800	TO-15		5/6/2019	CJR	1
Trichloroethene (TC	CE)	34000	ug/m3	663.6	2111.2	2800	TO-15		5/6/2019	CJR	1
Vinyl Chloride		< 414.4	ug/m3	414.4	1321.6	2800	TO-15		5/6/2019	CJR	1

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Project Name	DB OAK
Project #	170503

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Invoice # E36084

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Lab Code Sample ID Sample Matrix Sample Date	5036084F VP-4 Air 4/26/2019	Result	Unit	LOD	L00	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										•	
Air Samples											
Chloroform		< 840	ug/m3	840	2668.4	2800	TO-15		5/6/2019	CJR	1
1,2-Dichloroethane		< 672	ug/m3	672	2136.4		TO-15		5/6/2019	CJR	1
1,1-Dichloroethane		< 523.6	ug/m3	523.6	1668.8		TO-15		5/6/2019	CJR	1
1,1-Dichloroethene		< 588	ug/m3	588	1870.4		TO-15		5/6/2019	CJR	1
cis-1,2-Dichloroeth	ene	< 551.6	ug/m3	551.6	1752.8		TO-15		5/6/2019	CJR	1
trans-1,2-Dichloroe		< 646.8	ug/m3	646.8	2055.2		TO-15		5/6/2019	CJR	1
1,1,2,2-Tetrachloro		< 910	ug/m3	910	2884		TO-15		5/6/2019	CJR	1
Tetrachloroethene		64000	ug/m3	778.4	2475.2		TO-15		5/6/2019	CJR	1
1,1,1-Trichloroetha	ne	< 697.2	ug/m3	697.2	2220.4		TO-15		5/6/2019	CJR	1
1,1,2-Trichloroetha		< 722.4	ug/m3	722.4	2301.6		TO-15		5/6/2019	CJR	1
Trichloroethene (T(9700	ug/m3	663.6	2111.2	2800	TO-15		5/6/2019	CJR	1
Vinyl Chloride		< 414.4	ug/m3	414.4	1321.6	2800	TO-15		5/6/2019	CJR	1
Lab Code Sample ID Sample Matrix Sample Date	5036084G VP-6 Air 4/26/2019										
Sample Date	4/20/2019	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic											
Air Samples											
Chloroform		< 15	ug/m3	15	47.65	50	TO-15		5/7/2019	CJR	1
1,2-Dichloroethane		< 12	ug/m3	12	38.15	50	TO-15		5/7/2019	CJR	1
1,1-Dichloroethane		< 9.35	ug/m3	9.35	29.8	50	TO-15		5/7/2019	CJR	1
1,1-Dichloroethene		< 10.5	ug/m3	10.5	33.4	50	TO-15		5/7/2019	CJR	1
cis-1,2-Dichloroeth	ene	< 9.85	ug/m3	9.85	31.3	50	TO-15		5/7/2019	CJR	1
trans-1,2-Dichloroe	thene	< 11.55	ug/m3	11.55	36.7	50	TO-15		5/7/2019	CJR	1
1,1,2,2-Tetrachloro	ethane	< 16.25	ug/m3	16.25	51.5	50	TO-15		5/7/2019	CJR	1
Tetrachloroethene		20100	ug/m3	778.4	2475.2		TO-15		5/6/2019	CJR	1
1,1,1-Trichloroetha	ne	< 12.45	ug/m3	12.45			TO-15		5/7/2019	CJR	ì
1,1,2-Trichloroetha	ne	< 12.9	ug/m3	12.9	41.1	50	TO-15		5/7/2019	CJR	1
Trichloroethene (T	CE)	204	ug/m3	11.85	37.7	50	TO-15		5/7/2019	CJR	1
Vinyl Chloride		< 7.4	ug/m3	7.4	23.6	50	TO-15		5/7/2019	CJR	1

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Project NameDB OAKProject #170503

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Invoice # E36084

"J" Flag: Analyte detected between L	OD 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

Michaelfler

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Understanding Chemical Vapor Intrusion Testing Results

RR-977

October 2014

From the Lab to You

Chemical vapor samples were taken from underneath your house or building and possibly indoors as well. These samples have been tested by a certified laboratory and a report was issued. The Wisconsin Department of Natural Resources (DNR) uses these test results to determine if people in the building are being exposed to chemical vapors coming from nearby contaminated soil or groundwater, and to decide what, if any, action is needed to prevent this exposure.

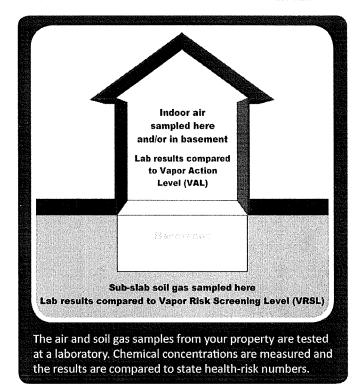
Indoor Air Testing Results

If indoor air samples were collected in your house or building, test results from the lab will be compared to the state Vapor Action Level (VAL) for chemicals of concern. The VAL is a chemical compound's numerical value that represents a health hazard risk to no more than 1 in 100,000 people during a lifetime of exposure. If test results show chemical concentrations in your air below the VAL then adverse health effects are extremely rare, even if you were to breathe the chemical at this concentration for your entire life.

Test results showing chemical concentrations in the air at or above the VAL prompt DNR to recommend that exposure to these chemical vapors be reduced. If test results show concentrations significantly above the VAL, or more than one type of chemical vapor is identified in your indoor air, the risk from exposure increases. If the concentration of any indoor chemical vapor greatly exceeds the VAL, DNR is concerned about even short-term exposure and will typically require immediate action to address the problem.

The VAL for each chemical is set by scientific research. It is protective of all people, including those who are most susceptible to adverse health effects.

If test results identify chemicals in your air that are not present in nearby soil or groundwater contamination, it is likely that these vapors are coming from some product or activity in or near your house or building. Many everyday consumer products (e.g., cleaners, solvents, polish, adhesives, lubricants, aerosols, insect repellants, etc.); combustion processes (e.g., smoking, home heating); fuels in attached garages; dry cleaned clothing or draperies; and occupant activities (e.g., craft hobbies), also release chemical vapors into the air.



Sub-slab Soil Gas Testing Results

Soil gas samples were collected from the ground beneath the concrete slab of your building foundation or basement. The lab measured the concentrations of various chemicals in these samples. DNR compares these measurements to the state Vapor Risk Screening Level (VRSL), which identifies the concentration of a chemical in soil gas that scientific research suggests can be a health risk if vapor enters a building. If soil gas measurements exceed the VRSL for a chemical of concern, action to reduce exposure is strongly recommended.

The VRSL is a higher number (higher chemical concentration) than the VAL because it is presumed that concrete building foundations and basement walls will prevent most soil gas from entering a building. Further, any soil gas that does enter a building through cracks, holes, sump pumps, drains, etc., will be diluted to some extent by the indoor air. So, people inside will not be breathing air that includes the full concentration of chemical vapors that exist in the ground.



Wisconsin Department of Natural Resources P.O. Box 7921, Madison, WI 53707 dnr.wi.gov, search "Brownfields"



DNR generally relies on the test results of the sub-slab soil gas samples when determining what, if any, action should be taken related to chemical vapors coming from nearby soil or groundwater contamination. Indoor air quality is highly variable, and it is difficult to make a definitive decision about vapor intrusion based on indoor air sampling alone.

Follow-Up Actions

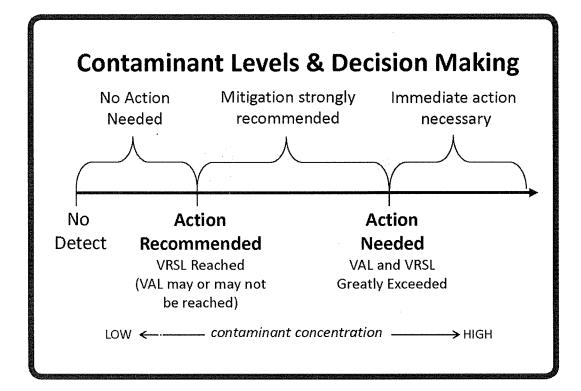
If your test results are less than a VAL for indoor air, or a VRSL for sub-slab soil gas, then the air in the house or building should not present a health concern. Follow-up sampling and testing may be necessary to confirm the results, but no other action is typically suggested.

When test results show soil gas chemical concentrations above a VRSL, both DNR and the Wisconsin Department of

Health Services recommend that owners take action to reduce potential exposure. This typically involves installing a vapor mitigation system that vents chemical vapors from beneath your home or building to the outdoors, similar to a radon mitigation system.

If indoor air concentrations exceed a VAL, but sub-slab concentrations are less than a VRSL, then the chemical vapors are most likely coming from indoor sources. Steps should be taken by the house or building owner to identify the products and practices causing the problem and implement appropriate remedies.

If soil gas mitigation is recommended, a representative of the party who is responsible for the soil or groundwater contamination will contact you to discuss your options.



<u>A Note about Measurement Units</u>: The lab report may include some unfamiliar technical language. The most important point to note is whether or not the test result for a specific chemical exceeds a VAL or VRSL, which are also sometimes referred to, generically, as "screening levels."

The concentration of gaseous pollutants in air is typically described in two different ways: 1) as units of mass per volume, where $\mu g/m3$ represents micrograms of gaseous pollutant per cubic meter of ambient air; and 2) as parts per billion by volume (ppbv), where the volume of a gaseous pollutant is compared to a set volume of ambient air. These are the numbers that are compared to the VAL and VRSL.

For more information, visit dnr.wi.gov/topic/Brownfields/Vapor.html

This document contains information about certain state statutes and administrative rules but does not necessarily include all of the details found in the statutes and rules. Readers should consult the actual language of the statutes and rules to answer specific questions. The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services, and functions under an Affirmative Action Plan. If you have any questions, please write to Equal Opportunity Office, Department of Interior, Washington, D.C. 20240. This publication is available in alternative format upon request. Please call 608-267-3543 for more information. September 27, 2019

ENVIRONMENTAL CONSULTING. INC.

RECEIVED

SEP 3 0 2019

DNR R&R

SOUTH CENTRAL REGION

Mr. Mario Rodriguez III Mr. Plumber 408 North 4th Street Fort Atkinson, WI 53538

SUBJECT: Vapor Sampling Results - <u>Contaminant Detected Above DNR Screening</u> Level

PROPERTY: DB Oak (formerly Thomas Industries) ("DB Oak") 700-710 Oak Street, Fort Atkinson, Wisconsin (the "Property") DNR BRRTS # 02-28-176509

Dear Mr. Rodriguez:

Included are the findings of a recent investigation on the Property by Friess Environmental Consulting, Inc. ("FEC"). This letter is a follow up to our conversation on September 26, 2019.

As you are aware, this investigation was conducted because of the potential for contaminant vapors from the Property, identified above, to migrate through soils, accumulate beneath the foundation of the Property, and possibly enter your indoor air. The contaminants of concern at the Property are tetrachloroethylene, trichloroethylene and vinyl chloride, commonly referred to as PCE, TCE and VC.

Test Results

On August 7, 2018 and April 26, 2019, FEC, an environmental consultant hired by Gardner Denver, Inc., installed sampling devices into the floor of a portion of the building foundation of the Property and collected soil vapor samples. The samples were then submitted to the laboratory for analysis of five (5) different volatile organic compounds, including PCE, TCE and VC.

The analysis detected PCE in soil gas (vapors) beneath the foundation floor at concentrations ranging from 20,100 ug/m³ to 47,000,000 ug/m³. The DNR sub-slab industrial risk vapor screening level ("VRSL") for PCE is 18,000 ug/m³.

The analysis detected TCE in soil gas (vapors) beneath the foundation floor at concentrations ranging from 9,700 ug/m³ to 2,920,000 ug/m³. The DNR sub-slab industrial VRSL for TCE is 880 ug/m^3 .

The analysis detected VC in soil gas (vapors) beneath the foundation floor at a concentration of $12,200 \text{ ug/m}^3$. The DNR sub-slab industrial VRSL for VC is $2,800 \text{ ug/m}^3$.

Attached is a copy of the laboratory reports for the air sample(s) taken from beneath the building foundation at the Property, as well as a map showing the sampling locations, and a data table. I also enclose a copy of WDNR Publication RR-977, "Understanding Chemical Vapor Testing Results."

The DNR action level for PCE, TCE and VC is set to provide a threshold concentration for PCE, TCE and VC that is protective of human health over long-term exposure. It is the experience of DNR and the Wisconsin Department of Health Services (DHS) in investigating similar cases at other locations in the state that the potential health risk for you is low. The vapor levels measured in the sub-slab at the Property present a <u>long-term risk</u>, not an immediate one, to occupants of the building.

Even though your potential health risks are low, you may have questions about how breathing these vapors may affect your health. Please contact Curtis Hedman with DHS, who can address your health questions and concerns.

Next Steps

We recommend the following actions at this time:

We would like to collect an air sample from the indoor air of the Property and test this sample for PCE, TCE and VC, which will allow us to determine whether building occupants are breathing elevated PCE, TCE and VC vapors. This also allows us to assess how effectively the building foundation is blocking sub-slab vapors from entering your indoor air.

The Wisconsin DNR recommends that we install a sub-slab mitigation system to remove PCE, TCE and VC vapors from beneath the Property. This system is identical to that used for homes with high radon levels. The system diverts radon (or chemical vapors) from beneath the home and discharges them into the outdoor air, above the building's roofline, rendering them harmless. Once PCE, TCE and VC vapors are successfully removed from beneath the foundation floor, there will be no potential or actual health threat for you or your employees from that kind of exposure.

The Property owner will be contacted by FEC to schedule installation of the sub-slab mitigation system, and we are forwarding a letter to the owner with a First Request for Access to Install Mitigation System, as well as WDNR RR 5457 Template Access Agreement for VI Mitigation Installation. The cost of system installation will be paid by Gardner Denver, Inc.

Please feel free to contact me at the number below if you have any questions about these results.

Sincerely, *FRIESS ENVIRONMENTAL CONSULTING, INC.*

Juitte Trenton J. Oft

Project Manager

Richard W. Frieseke

Richard W. Frieseke, P.E. President

cc: Curtis Hedman Wisconsin Dept. of Health Services 1 W. Wilson St. PO Box 2659 Madison, WI 53703 Alyssa Sellwood Wisconsin Dept. of Natural Resources RR/5 101 S. Webster St. PO Box 7921 Madison, WI 53707

WDNR Project Manager: Jeff Ackerman State of Wisconsin Department of Natural Resources 3911 Fish Hatchery Road Fitchburg, WI 53711-5397 608-275-3323 .

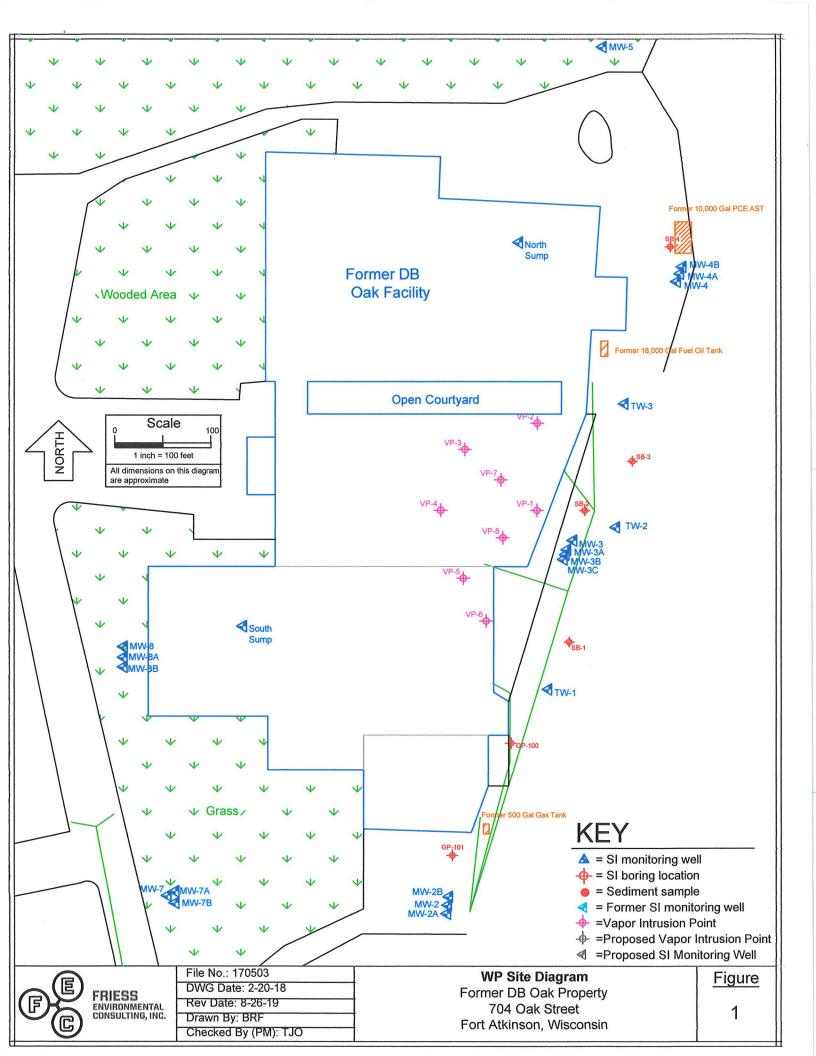
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Responsible Party Name and Contact Information: Gardner Denver, Inc. c/o Andrew Schiesl 222 East Erie Street Milwaukee, WI 53202 414-212-4700

Property Owner: DB Oak Limited Partnership

42356557



A.4. Vapor Analytical Table (1 of 2) VOC Analytical Results - Sub-Slab Vapor Samples Former DB Oak Property Fort Atkinson, Wisconsin

Sample Location	Sampling Date	cis-1,2- DCE (ug/m³)	trans-1,2- DCE (ug/m ³)	PCE (ug/m ³)	TCE (ug/m ³)	Vinyl Chloride (ug/m³)
VP-1	8/7/18	820,000	19,300	5,000,000	2,920,000	<828.8
VP-2	4/26/19	<551.6	2,330	<u>212,000</u>	<u>34,000</u>	<414.4
VP-3	4/26/19	NS	NS	NS	NS	NS
VP-4	4/26/19	<551.6	<646.8	<u>64,000</u>	<u>9,700</u>	<414.4
VP-5	4/26/19	NS	NS	NS	NS	NS
VP-6	4/26/19	<9.85	<11.55	<u>20,100</u>	<u>204</u>	<7.40
VP-7	4/26/19	<551.6	<646.8	<u>153,000</u>	<u>23,700</u>	<414.4
VP-8	4/26/19	910,000	9,700	47,000,000	<u>580,000</u>	<u>12,200</u>
Residential	VRSLs	NS	NS	1,400	70	57
Commercia	l VRSLs	NS	NS	6,000	293	933
Industrial V	(RSLs	NS	NS	18,000	880	2,800

Notes:

DNR Vapor Risk Screening Levels (VRSLs) are from U.S. EPA tables (updated November 2017)
 Concentrations that exceed their respective residential DNR VRSLs are <u>underlined</u>.

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.

CHAIN OF JSTODY RECORD

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Synergy Environmental Lab, INC

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 17-Aug-18

Project Name Proiect #	DB OAK 170503						Invo	ice # E350:	58		
Lab Code Sample ID Sample Matrix Sample Date	5035058A VP-1 Air 8/7/2018										
		Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic											
Air Samples											
cis-1,2-Dichloroeth	nene	820000	ug/m3	1103.2	3505.6	5600	TO-15		8/14/2018	CJR	1
trans-1,2-Dichloro	ethene	19300 .	ug/m3	1293.6	4110.4	5600	TO-15		8/14/2018	CJR	1
Tetrachloroethene		5000000	ug/m3	38920	123760	140000	TO-15		8/14/2018	CJR	1
Trichloroethene (T	CE)	2920000	ug/m3	33180	105560	140000	TO-15		8/14/2018	CJR	1
Vinyl Chloride		< 828.8	ug/m3	828.8	2643.2	5600	TO-15		8/14/2018	CJR	1

"J" Flag: Analyte detected between LOD and LOQ

LOD Limit of Detection

LOQ Limit of Quantitation

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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

Michaelflel

Lab Code Sample ID Sample Matrix Sample Date	5036084E VP-2 Air 4/26/2019	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic											
Air Samples											
Chloroform		< 840	ug/m3	840	2668.4	2800	TO-15		5/6/2019	CJR	1
1,2-Dichloroethane		< 672	ug/m3	672	2136.4	2800	TO-15		5/6/2019	CJR	1
1,1-Dichloroethane		< 523.6	ug/m3	523.6	1668.8	2800	TO-15		5/6/2019	CJR	1
1,1-Dichloroethene		< 588	ug/m3	588	1870.4	2800	TO-15		5/6/2019	CJR	1
cis-1,2-Dichloroethe	ne	< 551.6	ug/m3	551.6	1752.8	2800	TO-15	,	5/6/2019	CJR	1
trans-1,2-Dichloroet	hene	2330	ug/m3	646.8	2055.2	2800	TO-15		5/6/2019	CJR	1
1,1,2,2-Tetrachloroe	thane	< 910	ug/m3	910	2884	2800	TO-15		5/6/2019	CJR	1
Tetrachloroethene		212000	ug/m3	778.4	2475.2	2800	TO-15		5/6/2019	CJR	1
1,1,1-Trichloroethan	ie	< 697.2	ug/m3	697.2	2220.4	2800	TO-15		5/6/2019	CJR	1
1,1,2-Trichloroethan	ie	< 722.4	ug/m3	722.4	2301.6	2800	TO-15		5/6/2019	CJR	1
Trichloroethene (TC	E)	34000	ug/m3	663.6	2111.2	2800	TO-15	•	5/6/2019	CJR	1
Vinyl Chloride		< 414.4	ug/m3	414.4	1321.6	2800	TO-15		5/6/2019	CJR	1

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Project Name DB OAK Proiect # 170503						Invo	ice # E360	984	
Lab Code5036084FSample IDVP-4Sample MatrixAirSample Date4/26/2019	Result	Unit	LOD	LOO	Dil	Method	Ext Date	Run Date Analyst	t Code
Onconio				L				,,,,,	
Organic									
Air Samples Chloroform	< 810		840	2668.4	2800	TO IS		5/6/2010 CID	1
1,2-Dichloroethane	< 840 < 672	ug/m3	840 672	2008.4		TO-15 TO-15		5/6/2019 CJR 5/6/2019 CJR	1
1,1-Dichloroethane	< 523.6	ug/m3 ug/m3	523.6	1668.8	2800	TO-15		5/6/2019 CJR 5/6/2019 CJR	1
1,1-Dichloroethene	< 588	ug/m3	525.0	1870.4		TO-13 TO-15		5/6/2019 CJR	1
cis-1,2-Dichloroethene	< 551.6	ug/m3	551.6			TO-13 TO-15		5/6/2019 CJR	1
trans-1,2-Dichloroethene	< 646.8	ug/m3	646.8			TO-15		5/6/2019 CJR	I
1,1,2,2-Tetrachloroethane	< 910	ug/m3	910		2800	TO-15		5/6/2019 CJR	1
Tetrachloroethene	64000	ug/m3	778.4			TO-15 TO-15		5/6/2019 CJR	1
1,1,1-Trichloroethane	< 697.2	ug/m3	697.2			TO-15 TO-15		5/6/2019 CJR	1
1,1,2-Trichloroethane	< 722.4	ug/m3	722.4			TO-15 TO-15		5/6/2019 CJR	1
Trichloroethene (TCE)	9700	ug/m3	663.6			TO-15		5/6/2019 CJR	1
Vinyl Chloride	< 414.4	ug/m3	414.4			TO-15		5/6/2019 CJR	1
X X C C C C C C C C C C									
Lab Code 5036084G									
Sample ID VP-6 Sample Matrix Air									
Sample Date 4/26/2019									
Sample Date 4/20/2019	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date Analys	t Code
	Result	Unit	LOD	LUQ	DI	Method	Ext Date	Run Date Analys	Cour
Organic									
Air Samples									
Chloroform	< 15	ug/m3	15			TO-15		5/7/2019 CJR	1
1,2-Dichloroethane	< 1?	ug/m3	12			TO-15		5/7/2019 CJR	l
1,1-Dichloroethane	< 9.35	ug/m3	9.35			TO-15		5/7/2019 CJR	I
1,1-Dichloroethene	< 10.5	ug/m3	10.5			TO-15		5/7/2019 CJR	1
cis-1,2-Dichloroethene	< 9.85	ug/m3	9.85			TO-15		5/7/2019 CJR	1
trans-1,2-Dichloroethene	< 11.55	ug/m3	11.55			TO-15		5/7/2019 CJR	1
1,1,2,2-Tetrachloroethane	< 16.25	ug/m3	16.25			TO-15		5/7/2019 CJR	1
Tetrachloroethene	20100	ug/m3	778.4			TO-15		5/6/2019 CJR	1
1,1,1-Trichloroethane	< 12.45	ug/m3	12.45			TO-15		5/7/2019 CJR	1
1,1,2-Trichloroethane	< 12.9	ug/m3	12.9			TO-15		5/7/2019 CJR	1
Trichloroethene (TCE)	204 .	ug/m3	11.85			TO-15		5/7/2019 CJR	1
Vinyl Chloride	< 7.4	ug/m3	7.4	23.6	50	TO-15		5/7/2019 CJR	1

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Invoice # E36084

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

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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

Michaelplul

Understanding Chemical Vapor Intrusion Testing Results

RR-977

October 2014

From the Lab to You

Chemical vapor samples were taken from underneath your house or building and possibly indoors as well. These samples have been tested by a certified laboratory and a report was issued. The Wisconsin Department of Natural Resources (DNR) uses these test results to determine if people in the building are being exposed to chemical vapors coming from nearby contaminated soil or groundwater, and to decide what, if any, action is needed to prevent this exposure.

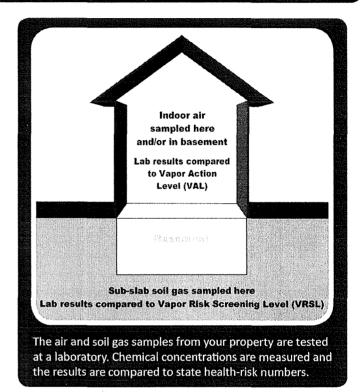
Indoor Air Testing Results

If indoor air samples were collected in your house or building, test results from the lab will be compared to the state Vapor Action Level (VAL) for chemicals of concern. The VAL is a chemical compound's numerical value that represents a health hazard risk to no more than 1 in 100,000 people during a lifetime of exposure. If test results show chemical concentrations in your air below the VAL then adverse health effects are extremely rare, even if you were to breathe the chemical at this concentration for your entire life.

Test results showing chemical concentrations in the air at or above the VAL prompt DNR to recommend that exposure to these chemical vapors be reduced. If test results show concentrations significantly above the VAL, or more than one type of chemical vapor is identified in your indoor air, the risk from exposure increases. If the concentration of any indoor chemical vapor greatly exceeds the VAL, DNR is concerned about even short-term exposure and will typically require immediate action to address the problem.

The VAL for each chemical is set by scientific research. It is protective of all people, including those who are most susceptible to adverse health effects.

If test results identify chemicals in your air that are not present in nearby soil or groundwater contamination, it is likely that these vapors are coming from some product or activity in or near your house or building. Many everyday consumer products (e.g., cleaners, solvents, polish, adhesives, lubricants, aerosols, insect repellants, etc.); combustion processes (e.g., smoking, home heating); fuels in attached garages; dry cleaned clothing or draperies; and occupant activities (e.g., craft hobbies), also release chemical vapors into the air.



Sub-slab Soil Gas Testing Results

Soil gas samples were collected from the ground beneath the concrete slab of your building foundation or basement. The lab measured the concentrations of various chemicals in these samples. DNR compares these measurements to the state Vapor Risk Screening Level (VRSL), which identifies the concentration of a chemical in soil gas that scientific research suggests can be a health risk if vapor enters a building. If soil gas measurements exceed the VRSL for a chemical of concern, action to reduce exposure is strongly recommended.

The VRSL is a higher number (higher chemical concentration) than the VAL because it is presumed that concrete building foundations and basement walls will prevent most soil gas from entering a building. Further, any soil gas that does enter a building through cracks, holes, sump pumps, drains, etc., will be diluted to some extent by the indoor air. So, people inside will not be breathing air that includes the full concentration of chemical vapors that exist in the ground.



Wisconsin Department of Natural Resources P.O. Box 7921, Madison, WI 53707 dnr.wi.gov, search "Brownfields"



DNR generally relies on the test results of the sub-slab soil gas samples when determining what, if any, action should be taken related to chemical vapors coming from nearby soil or groundwater contamination. Indoor air quality is highly variable, and it is difficult to make a definitive decision about vapor intrusion based on indoor air sampling alone.

Follow-Up Actions

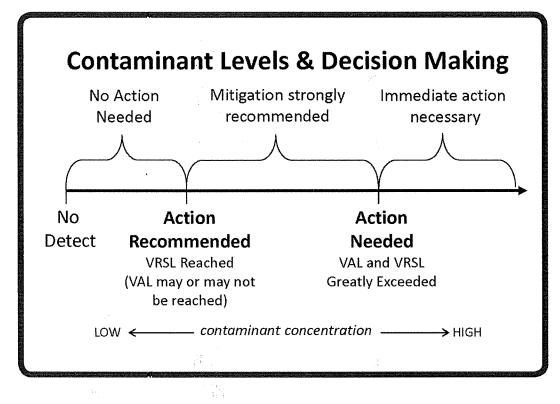
If your test results are less than a VAL for indoor air, or a VRSL for sub-slab soil gas, then the air in the house or building should not present a health concern. Follow-up sampling and testing may be necessary to confirm the results, but no other action is typically suggested.

When test results show soil gas chemical concentrations above a VRSL, both DNR and the Wisconsin Department of

Health Services recommend that owners take action to reduce potential exposure. This typically involves installing a vapor mitigation system that vents chemical vapors from beneath your home or building to the outdoors, similar to a radon mitigation system.

If indoor air concentrations exceed a VAL, but sub-slab concentrations are less than a VRSL, then the chemical vapors are most likely coming from indoor sources. Steps should be taken by the house or building owner to identify the products and practices causing the problem and implement appropriate remedies.

If soil gas mitigation is recommended, a representative of the party who is responsible for the soil or groundwater contamination will contact you to discuss your options.



<u>A Note about Measurement Units</u>: The lab report may include some unfamiliar technical language. The most important point to note is whether or not the test result for a specific chemical exceeds a VAL or VRSL, which are also sometimes referred to, generically, as "screening levels."

The concentration of gaseous pollutants in air is typically described in two different ways: 1) as units of mass per volume, where $\mu g/m3$ represents micrograms of gaseous pollutant per cubic meter of ambient air; and 2) as parts per billion by volume (ppbv), where the volume of a gaseous pollutant is compared to a set volume of ambient air. These are the numbers that are compared to the VAL and VRSL.

For more information, visit dnr.wi.gov/topic/Brownfields/Vapor.html

This document contains information about certain state statutes and administrative rules but does not necessarily include all of the details found in the statutes and rules. Readers should consult the actual language of the statutes and rules to answer specific questions. The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services, and functions under an Affirmative Action Plan. If you have any questions, please write to Equal Opportunity Office, Department of Interior, Washington, D.C. 20240. This publication is available in alternative format upon request. Please call 608-267-3543 for more information.

SEP 3 0 2019

SOUTH CENTRAL REGION

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September 27, 2019

Mr. Andy Joaz Joaz Painting 704 Oak Street Fort Atkinson, WI 53538

SUBJECT: Vapor Sampling Results - <u>Contaminant Detected Above DNR Screening</u> Level

PROPERTY: DB Oak (formerly Thomas Industries) ("DB Oak") 700-710 Oak Street, Fort Atkinson, Wisconsin (the "Property") DNR BRRTS # 02-28-176509

Dear Mr. Joaz:

Included are the findings of a recent investigation on the Property by Friess Environmental Consulting, Inc. ("FEC"). This letter is a follow up to our phone message on September 26, 2019.

As you are aware, this investigation was conducted because of the potential for contaminant vapors from the Property, identified above, to migrate through soils, accumulate beneath the foundation of the Property, and possibly enter your indoor air. The contaminants of concern at the Property are tetrachloroethylene, trichloroethylene and vinyl chloride, commonly referred to as PCE, TCE and VC.

Test Results

On August 7, 2018 and April 26, 2019, FEC, an environmental consultant hired by Gardner Denver, Inc., installed sampling devices into the floor of a portion of the building foundation of the Property and collected soil vapor samples. The samples were then submitted to the laboratory for analysis of five (5) different volatile organic compounds, including PCE, TCE and VC.

The analysis detected PCE in soil gas (vapors) beneath the foundation floor at concentrations ranging from 20,100 ug/m³ to 47,000,000 ug/m³. The DNR sub-slab industrial risk vapor screening level ("VRSL") for PCE is 18,000 ug/m³.

The analysis detected TCE in soil gas (vapors) beneath the foundation floor at concentrations ranging from 9,700 ug/m³ to 2,920,000 ug/m³. The DNR sub-slab industrial VRSL for TCE is 880 ug/m^3 .

The analysis detected VC in soil gas (vapors) beneath the foundation floor at a concentration of 12,200 ug/m^3 . The DNR sub-slab industrial VRSL for VC is 2,800 ug/m^3 .

Attached is a copy of the laboratory reports for the air sample(s) taken from beneath the building foundation at the Property, as well as a map showing the sampling locations, and a data table. I also enclose a copy of WDNR Publication RR-977, "Understanding Chemical Vapor Testing Results."

The DNR action level for PCE, TCE and VC is set to provide a threshold concentration for PCE, TCE and VC that is protective of human health over long-term exposure. It is the experience of DNR and the Wisconsin Department of Health Services (DHS) in investigating similar cases at other locations in the state that the potential health risk for you is low. The vapor levels measured in the sub-slab at the Property present a <u>long-term risk</u>, not an immediate one, to occupants of the building.

Even though your potential health risks are low, you may have questions about how breathing these vapors may affect your health. Please contact Curtis Hedman with DHS, who can address your health questions and concerns.

Next Steps

We recommend the following actions at this time:

We would like to collect an air sample from the indoor air of the Property and test this sample for PCE, TCE and VC, which will allow us to determine whether building occupants are breathing elevated PCE, TCE and VC vapors. This also allows us to assess how effectively the building foundation is blocking sub-slab vapors from entering your indoor air.

The Wisconsin DNR recommends that we install a sub-slab mitigation system to remove PCE, TCE and VC vapors from beneath the Property. This system is identical to that used for homes with high radon levels. The system diverts radon (or chemical vapors) from beneath the home and discharges them into the outdoor air, above the building's roofline, rendering them harmless. Once PCE, TCE and VC vapors are successfully removed from beneath the foundation floor, there will be no potential or actual health threat for you or your employees from that kind of exposure.

The Property owner will be contacted by FEC to schedule installation of the sub-slab mitigation system, and we are forwarding a letter to the owner with a First Request for Access to Install Mitigation System, as well as WDNR RR 5457 Template Access Agreement for VI Mitigation Installation. The cost of system installation will be paid by Gardner Denver, Inc.

Please feel free to contact me at the number below if you have any questions about these results.

Sincerely, FRIESS ENVIRONMENTAL CONSULTING, INC.

/with

Trenton J. Ott Project Manager

Riberd W. Frieseke

Richard W. Frieseke, P.E. President

cc: Curtis Hedman Wisconsin Dept. of Health Services 1 W. Wilson St. PO Box 2659 Madison, WI 53703 Alyssa Sellwood Wisconsin Dept. of Natural Resources RR/5 101 S. Webster St. PO Box 7921 Madison, WI 53707

WDNR Project Manager: Jeff Ackerman State of Wisconsin Department of Natural Resources 3911 Fish Hatchery Road Fitchburg, WI 53711-5397 608-275-3323 .

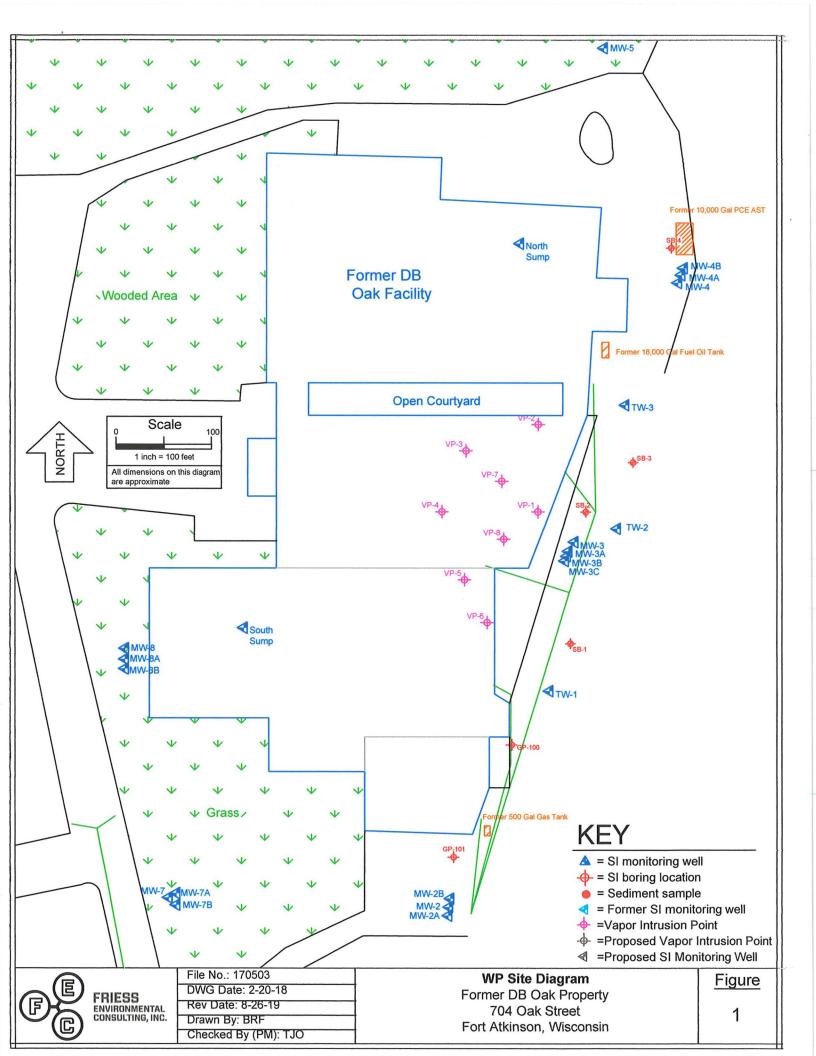
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Responsible Party Name and Contact Information: Gardner Denver, Inc. c/o Andrew Schiesl 222 East Erie Street Milwaukee, WI 53202 414-212-4700

Property Owner: DB Oak Limited Partnership

42356557



A.4. Vapor Analytical Table (1 of 2) **VOC Analytical Results - Sub-Slab Vapor Samples** Former DB Oak Property Fort Atkinson, Wisconsin

Sample Location	Sampling Date	cis-1,2- DCE (ug/m³)	trans-1,2- DCE (ug/m³)	PCE (ug/m ³)	TCE (ug/m ³)	Vinyl Chloride (ug/m³)
VP-1	8/7/18	820,000	19,300	5,000,000	2,920,000	<828.8
VP-2	4/26/19	<551.6	2,330	<u>212,000</u>	<u>34,000</u>	<414.4
VP-3	4/26/19	NS	NS	NS	NS	NS
VP-4	4/26/19	<551.6	<646.8	<u>64,000</u>	<u>9,700</u>	<414.4
VP-5	4/26/19	NS	NS	NS	NS	NS
VP-6	4/26/19	<9.85	<11.55	<u>20,100</u>	<u>204</u>	<7.40
VP-7	4/26/19	<551.6	<646.8	<u>153,000</u>	<u>23,700</u>	<414.4
VP-8	4/26/19	910,000	9,700	47,000,000	580,000	<u>12,200</u>
Residential	VRSLs	NS	NS	1,400	70	57
Commercia	l VRSLs	NS	NS	6,000	293	933
Industrial V	'RSLs	NS	NS	18,000	880	2,800

Notes:

DNR Vapor Risk Screening Levels (VRSLs) are from U.S. EPA tables (updated November 2017)
 Concentrations that exceed their respective residential DNR VRSLs are <u>underlined</u>.

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

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

CHAIN OF JSTODY RECORD



Chain # Nº 35/ 7

Page 1 of 1

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Synergy Environmental Lab, INC

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 17-Aug-18

Project Name DB Project # 1705	OAK 503					Invo	ice # E350	58		
Sample ID VI Sample Matrix Ai	-									
	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Air Samples										
cis-1,2-Dichloroethene	820000	ug/m3	1103.2	3505.6	5600	TO-15		8/14/2018	CJR	1
trans-1,2-Dichloroethene	19300	ug/m3	1293.6	4110.4	5600	TO-15		8/14/2018	CJR	1
Tetrachloroethene	5000000	ug/m3	38920	123760	140000	TO-15		8/14/2018	CJR	1
Trichloroethene (TCE)	2920000	ug/m3	33180	105560	140000	TO-15		8/14/2018	CJR	1
Vinyl Chloride	< 828.8	ug/m3	828.8	2643.2	5600	TO-15		8/14/2018	CJR	1

"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

Michaelplul

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Lab Code Sample ID Sample Matrix Sample Date	5036084E VP-2 Air 4/26/2019	Decusité	Unit	LOD	100	D4	Method	Ext Date	Dun Data	A	Code
		Result	Um	LOD	LUQ	Dil	Methou	EXI Date	Run Date	Anaiysi	Code
Organic											
Air Samples											
Chloroform		< 840	ug/m3	840	2668.4	2800	TO-15		5/6/2019	CJR	1
1,2-Dichloroethane		< 672	ug/m3	672	2136.4	2800	TO-15		5/6/2019	CJR	1
1,1-Dichloroethane		< 523.6	ug/m3	523.6	1668.8	2800	TO-15		5/6/2019	CJR	1
1,1-Dichlorocthene		< 588	ug/m3	588	1870.4	2800	TO-15		5/6/2019	CJR	1
cis-1,2-Dichloroeth	ene	< 551.6	ug/m3	551.6	1752.8	2800	TO-15		5/6/2019	CJR	1
trans-1,2-Dichloroe	thene	2330	ug/m3	646.8	2055.2	2800	TO-15		5/6/2019	CJR	1
1,1,2,2-Tetrachloro	ethane	< 9:0	ug/m3	910	2884	2800	TO-15		5/6/2019	CJR	1
Tetrachloroethene		212000	ug/m3	778.4	2475.2	2800	TO-15		5/6/2019	CJR	1
1,1,1-Trichloroetha	ne	< 697.2	ug/m3	697.2	2220.4	2800	TO-15		5/6/2019	CJR	1
1,1,2-Trichloroetha	ne	< 722.4	ug/m3	722.4	2301.6	2800	TO-15		5/6/2019	CJR	I
Trichloroethene (TC	CE)	34000	ug/m3	663.6	2111.2	2800	TO-15		5/6/2019	CJR	1
Vinyl Chloride		< 414.4	ug/m3	414.4	1321.6	2800	TO-15		5/6/2019	CJR	1

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Project Name	DB OAK
Proiect #	170503

1,1,2,2-Tetrachloroethane

Tetrachloroethene

1,1,1-Trichloroethane

1,1,2-Trichloroethane

Trichloroethene (TCE)

Vinyl Chloride

< 16.25

< 12.45

< 12.9

< 7.4

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J	DB OAK 170503						Invo	ice # E360)84		
Lab Code Sample ID Sample Matrix Sample Date	5036084F VP-4 Air 4/26/2019	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic											
Air Samples											
Chloroform		< 840	ug/m3	840	2668.4	2800	TO-15		5/6/2019	CJR	1
1,2-Dichloroethane		< 672	ug/m3	672	2136.4	2800	TO-15		5/6/2019	CJR	1
1,1-Dichloroethane	:	< 523.6	ug/m3	523.6	1668.8	2800	TO-15		5/6/2019	CJR	1
1,1-Dichloroethene		< 588	ug/m3	588	1870.4	2800	TO-15		5/6/2019	CJR	1
cis-1,2-Dichloroeth	ene	< 551.6	ug/m3	551.6	1752.8	2800	TO-15		5/6/2019	CJR	1
trans-1,2-Dichloroe	thene	< 646.8	ug/m3	646.8	2055.2	2800	TO-15		5/6/2019	CJR	1
1,1,2,2-Tetrachloro	oethane	< 910	ug/m3	910	2884	2800	TO-15		5/6/2019	CJR	1
Tetrachloroethene		64000	ug/m3	778.4	2475.2	2800	TO-15		5/6/2019	CJR	1
1,1,1-Trichloroetha	inc	< 697.2	ug/m3	697.2	2220.4	2800	TO-15		5/6/2019	CJR	1
1,1,2-Trichloroetha	ine	< 722.4	ug/m3	722.4	2301.6	2800	TO-15		5/6/2019	CJR	1
Trichloroethene (T	CE)	9700	ug/m3	663.6	2111.2	2800	TO-15		5/6/2019	CJR	I
Vinyl Chloride		< 414.4	ug/m3	414.4	1321.6	2800	TO-15		5/6/2019	CJR	1
Lab Code Sample ID Sample Matrix Sample Date	5036084G VP-6 Air 4/26/2019	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic											
Air Samples											
Chloroform		< 15	ug/m3	15	47,65	50	TO-15		5/7/2019	CJR	1
1,2-Dichloroethane		< 12	ug/m3	12	38.15	50	TO-15		5/7/2019	CJR	1
1,1-Dichloroethane		< 9.35	ug/m3	9.35	29.8	50	TO-15		5/7/2019	CJR	1
1,1-Dichloroethene		< 10.5	ug/m3	10.5	33.4	50	TO-15		5/7/2019	CJR	1
cis-1,2-Dichloroeth		< 9.85	ug/m3	9.85	31.3	50	TO-15		5/7/2019	CJR	1
trans-1,2-Dichloroe		< 11.55	ug/m3	11.55	36.7	50	TO-15		5/7/2019	CJR	1
			0								

16.25

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Invoice # E36084

"J" Flag: Analyte detected between LOD and LOQ LOD Limit of Detection

LOQ Limit of Quantitation

Code	Comment

1

Laboratory QC within limits.

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Authorized Signature

Michaelfler

Understanding Chemical Vapor Intrusion Testing Results

RR-977

October 2014

From the Lab to You

Chemical vapor samples were taken from underneath your house or building and possibly indoors as well. These samples have been tested by a certified laboratory and a report was issued. The Wisconsin Department of Natural Resources (DNR) uses these test results to determine if people in the building are being exposed to chemical vapors coming from nearby contaminated soil or groundwater, and to decide what, if any, action is needed to prevent this exposure.

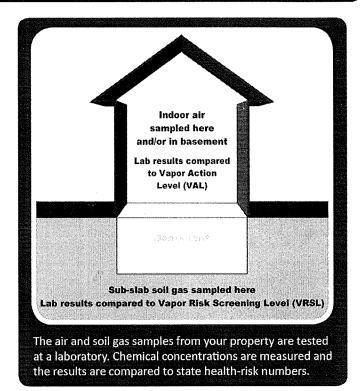
Indoor Air Testing Results

If indoor air samples were collected in your house or building, test results from the lab will be compared to the state Vapor Action Level (VAL) for chemicals of concern. The VAL is a chemical compound's numerical value that represents a health hazard risk to no more than 1 in 100,000 people during a lifetime of exposure. If test results show chemical concentrations in your air below the VAL then adverse health effects are extremely rare, even if you were to breathe the chemical at this concentration for your entire life.

Test results showing chemical concentrations in the air at or above the VAL prompt DNR to recommend that exposure to these chemical vapors be reduced. If test results show concentrations significantly above the VAL, or more than one type of chemical vapor is identified in your indoor air, the risk from exposure increases. If the concentration of any indoor chemical vapor greatly exceeds the VAL, DNR is concerned about even short-term exposure and will typically require immediate action to address the problem.

The VAL for each chemical is set by scientific research. It is protective of all people, including those who are most susceptible to adverse health effects.

If test results identify chemicals in your air that are not present in nearby soil or groundwater contamination, it is likely that these vapors are coming from some product or activity in or near your house or building. Many everyday consumer products (e.g., cleaners, solvents, polish, adhesives, lubricants, aerosols, insect repellants, etc.); combustion processes (e.g., smoking, home heating); fuels in attached garages; dry cleaned clothing or draperies; and occupant activities (e.g., craft hobbies), also release chemical vapors into the air.



Sub-slab Soil Gas Testing Results

Soil gas samples were collected from the ground beneath the concrete slab of your building foundation or basement. The lab measured the concentrations of various chemicals in these samples. DNR compares these measurements to the state Vapor Risk Screening Level (VRSL), which identifies the concentration of a chemical in soil gas that scientific research suggests can be a health risk if vapor enters a building. If soil gas measurements exceed the VRSL for a chemical of concern, action to reduce exposure is strongly recommended.

The VRSL is a higher number (higher chemical concentration) than the VAL because it is presumed that concrete building foundations and basement walls will prevent most soil gas from entering a building. Further, any soil gas that does enter a building through cracks, holes, sump pumps, drains, etc., will be diluted to some extent by the indoor air. So, people inside will not be breathing air that includes the full concentration of chemical vapors that exist in the ground.



Wisconsin Department of Natural Resources P.O. Box 7921, Madison, WI 53707 dnr.wi.gov, search "Brownfields"



DNR generally relies on the test results of the sub-slab soil gas samples when determining what, if any, action should be taken related to chemical vapors coming from nearby soil or groundwater contamination. Indoor air quality is highly variable, and it is difficult to make a definitive decision about vapor intrusion based on indoor air sampling alone.

Follow-Up Actions

If your test results are less than a VAL for indoor air, or a VRSL for sub-slab soil gas, then the air in the house or building should not present a health concern. Follow-up sampling and testing may be necessary to confirm the results, but no other action is typically suggested.

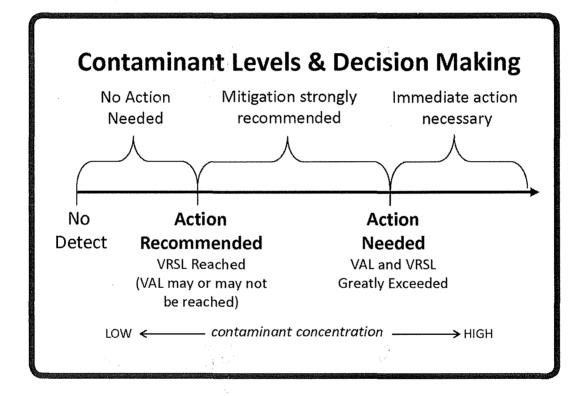
When test results show soil gas chemical concentrations above a VRSL, both DNR and the Wisconsin Department of

Health Services recommend that owners take action to reduce potential exposure. This typically involves installing a vapor mitigation system that vents chemical vapors from beneath your home or building to the outdoors, similar to a radon mitigation system.

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If indoor air concentrations exceed a VAL, but sub-slab concentrations are less than a VRSL, then the chemical vapors are most likely coming from indoor sources. Steps should be taken by the house or building owner to identify the products and practices causing the problem and implement appropriate remedies.

If soil gas mitigation is recommended, a representative of the party who is responsible for the soil or groundwater contamination will contact you to discuss your options.



<u>A Note about Measurement Units:</u> The lab report may include some unfamiliar technical language. The most important point to note is whether or not the test result for a specific chemical exceeds a VAL or VRSL, which are also sometimes referred to, generically, as "screening levels."

The concentration of gaseous pollutants in air is typically described in two different ways: 1) as units of mass per volume, where $\mu g/m3$ represents micrograms of gaseous pollutant per cubic meter of ambient air; and 2) as parts per billion by volume (ppbv), where the volume of a gaseous pollutant is compared to a set volume of ambient air. These are the numbers that are compared to the VAL and VRSL.

For more information, visit dnr.wi.gov/topic/Brownfields/Vapor.html

This document contains information about certain state statutes and administrative rules but does not necessarily include all of the details found in the statutes and rules. Readers should consult the actual language of the statutes and rules to answer specific questions. The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services, and functions under an Affirmative Action Plan. If you have any questions, please write to Equal Opportunity Office, Department of Interior, Washington, D.C. 20240. This publication is available in alternative format upon request. Please call 608-267-3543 for more information.



September 27, 2019

Mr. Jeff Begovatz Begovatz Construction 704 Oak Street Fort Atkinson, WI 53538

SUBJECT: Vapor Sampling Results - <u>Contaminant Detected Above DNR Screening</u> Level

PROPERTY: DB Oak (formerly Thomas Industries) ("DB Oak") 700-710 Oak Street, Fort Atkinson, Wisconsin (the "Property") DNR BRRTS # 02-28-176509

Dear Mr. Begovatz:

Included are the findings of a recent investigation on the Property by Friess Environmental Consulting, Inc. ("FEC"). This letter is a follow up to our phone message on September 26, 2019.

As you are aware, this investigation was conducted because of the potential for contaminant vapors from the Property, identified above, to migrate through soils, accumulate beneath the foundation of the Property, and possibly enter your indoor air. The contaminants of concern at the Property are tetrachloroethylene, trichloroethylene and vinyl chloride, commonly referred to as PCE, TCE and VC.

Test Results

On August 7, 2018 and April 26, 2019, FEC, an environmental consultant hired by Gardner Denver, Inc., installed sampling devices into the floor of a portion of the building foundation of the Property and collected soil vapor samples. The samples were then submitted to the laboratory for analysis of five (5) different volatile organic compounds, including PCE, TCE and VC.

The analysis detected PCE in soil gas (vapors) beneath the foundation floor at concentrations ranging from 20,100 ug/m³ to 47,000,000 ug/m³. The DNR sub-slab industrial risk vapor screening level ("VRSL") for PCE is 18,000 ug/m³.

The analysis detected TCE in soil gas (vapors) beneath the foundation floor at concentrations ranging from 9,700 ug/m³ to 2,920,000 ug/m³. The DNR sub-slab industrial VRSL for TCE is 880 ug/m^3 .

The analysis detected VC in soil gas (vapors) beneath the foundation floor at a concentration of $12,200 \text{ ug/m}^3$. The DNR sub-slab industrial VRSL for VC is $2,800 \text{ ug/m}^3$.

Attached is a copy of the laboratory reports for the air sample(s) taken from beneath the building foundation at the Property, as well as a map showing the sampling locations, and a data table. I also enclose a copy of WDNR Publication RR-977, "Understanding Chemical Vapor Testing Results."

The DNR action level for PCE, TCE and VC is set to provide a threshold concentration for PCE, TCE and VC that is protective of human health over long-term exposure. It is the experience of DNR and the Wisconsin Department of Health Services (DHS) in investigating similar cases at other locations in the state that the potential health risk for you is low. The vapor levels measured in the sub-slab at the Property present a <u>long-term risk</u>, not an immediate one, to occupants of the building.

Even though your potential health risks are low, you may have questions about how breathing these vapors may affect your health. Please contact Curtis Hedman with DHS, who can address your health questions and concerns.

Next Steps

We recommend the following actions at this time:

We would like to collect an air sample from the indoor air of the Property and test this sample for PCE, TCE and VC, which will allow us to determine whether building occupants are breathing elevated PCE, TCE and VC vapors. This also allows us to assess how effectively the building foundation is blocking sub-slab vapors from entering your indoor air.

The Wisconsin DNR recommends that we install a sub-slab mitigation system to remove PCE, TCE and VC vapors from beneath the Property. This system is identical to that used for homes with high radon levels. The system diverts radon (or chemical vapors) from beneath the home and discharges them into the outdoor air, above the building's roofline, rendering them harmless. Once PCE, TCE and VC vapors are successfully removed from beneath the foundation floor, there will be no potential or actual health threat for you or your employees from that kind of exposure.

The Property owner will be contacted by FEC to schedule installation of the sub-slab mitigation system, and we are forwarding a letter to the owner with a First Request for Access to Install Mitigation System, as well as WDNR RR 5457 Template Access Agreement for VI Mitigation Installation. The cost of system installation will be paid by Gardner Denver, Inc.

Please feel free to contact me at the number below if you have any questions about these results.

Sincerely, FRIESS ENVIRONMENTAL CONSULTING, INC.

/watter Trenton J. Off

Project Manager

Richard W. Frieseke

Richard W. Frieseke, P.E. President

cc: Curtis Hedman Wisconsin Dept. of Health Services 1 W. Wilson St. PO Box 2659 Madison, WI 53703 Alyssa Sellwood Wisconsin Dept. of Natural Resources RR/5 101 S. Webster St. PO Box 7921 Madison, WI 53707

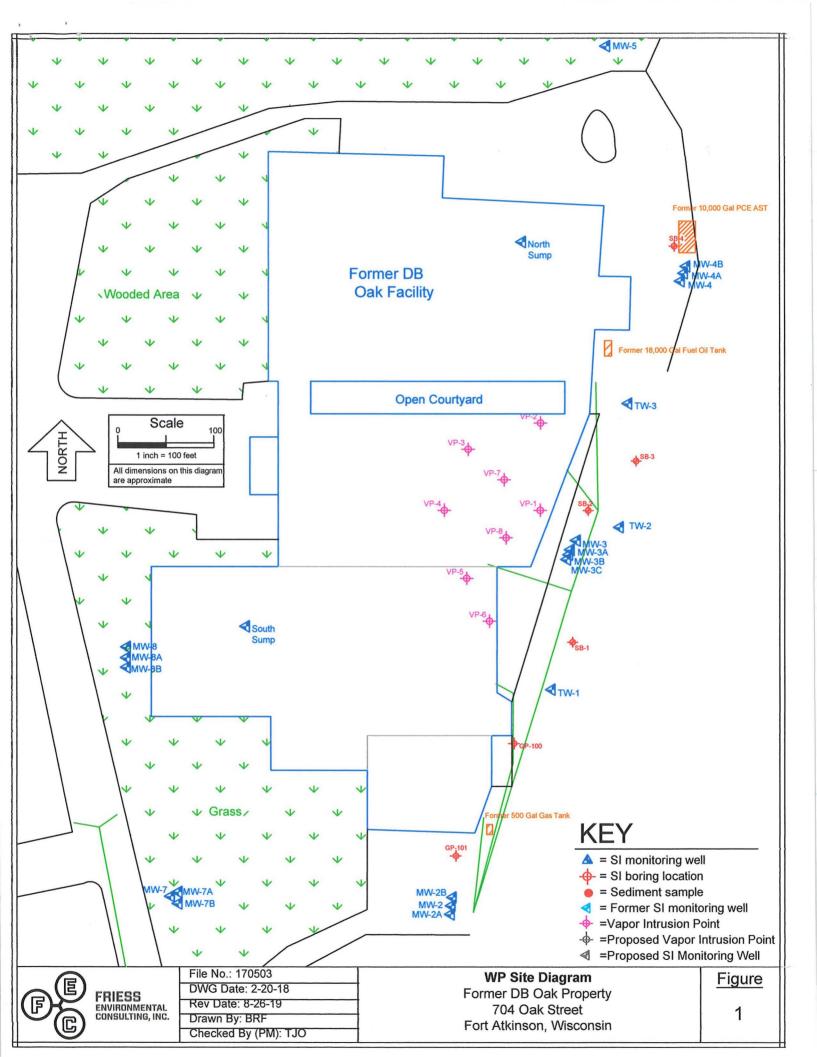
WDNR Project Manager: Jeff Ackerman State of Wisconsin Department of Natural Resources 3911 Fish Hatchery Road Fitchburg, WI 53711-5397 608-275-3323 ŗ

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Responsible Party Name and Contact Information: Gardner Denver, Inc. c/o Andrew Schiesl 222 East Erie Street Milwaukee, WI 53202 414-212-4700

Property Owner: DB Oak Limited Partnership

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A.4. Vapor Analytical Table (1 of 2) VOC Analytical Results - Sub-Slab Vapor Samples Former DB Oak Property Fort Atkinson, Wisconsin

Sample Location	Sampling Date	cis-1,2- DCE (ug/m³)	trans-1,2- DCE (ug/m ³)	PCE (ug/m ³)	TCE (ug/m³)	Vinyl Chloride (ug/m³)
VP-1	8/7/18	820,000	19,300	<u>5,000,000</u>	2,920,000	<828.8
VP-2	4/26/19	<551.6	2,330	a <u>212,000</u>	34,000	<414.4
VP-3	4/26/19	NS	NS	NS	NS	NS
VP-4	4/26/19	<551.6	<646.8	<u>64,000</u>	<u>9,700</u>	<414.4
VP-5	4/26/19	NS	NS	NS	NS	NS
VP-6	4/26/19	<9.85	<11.55	<u>20,100</u>	<u>204</u>	<7.40
VP-7	4/26/19	<551.6	<646.8	<u>153,000</u>	<u>23,700</u>	<414.4
VP-8	4/26/19	910,000	9,700	47,000,000	<u>580,000</u>	<u>12,200</u>
Residential	VRSLs	NS	NS	1,400	70	57
Commercial VRSLs NS		NS	NS	6,000	293	933
Industrial V	'RSLs	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.

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Page 1 of 1

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Synergy Environmental Lab, INC

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 17-Aug-18

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Lab Code5035058.Sample IDVP-1Sample MatrixAirSample Date8/7/2018										
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LOD Limit of Detection

LOQ Limit of Quantitation

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Code Comment

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Authorized Signature

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Lab Code5036084ESample IDVP-2

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Sample Matrix Air

Sample Date 4/26/2019

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	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Air Samples										
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Tetrachloroethene	212000 .	ug/m3	778.4	2475.2	2800	TO-15		5/6/2019	CJR	1
1,1,1-Trichloroethane	< 697.2	ug/m3	697.2	2220.4	2800	TO-15		5/6/2019	CJR	1
1,1,2-Trichloroethane	< 722.4	ug/m3	722.4	2301.6	2800	TO-15		5/6/2019	CJR	1
Trichloroethene (TCE)	34000	ug/m3	663.6	2111.2	2800	TO-15		5/6/2019	CJR	I
Vinyl Chloride	< 414.4	ug/m3	414.4	1321.6	2800	TO-15		5/6/2019	CJR	1

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Project Name Proiect #	DB OAK 170503						Invo	ice # E360	84		
Lab Code Sample ID Sample Matrix	5036084F VP-4 Air										
Sample Date	4/26/2019										
		Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic											
Air Samples											
Chloroform		< 840	ug/m3	840	2668.4	2800	TO-15		5/6/2019	CJR	1
1,2-Dichloroethane	e	< 672	ug/m3	672	2136.4	2800	TO-15		5/6/2019	CJR	1
1,1-Dichloroethane	e	< 523.6	ug/m3	523.6	1668.8	2800	TO-15		5/6/2019	CJR	1
1,1-Dichloroethene		< 588	ug/m3	588	1870.4	2800	TO-15		5/6/2019	CJR	1
cis-1,2-Dichloroet	iene	< 551.6	ug/m3	551.6	1752.8	2800	TO-15		5/6/2019	CJR	I
trans-1,2-Dichloro	ethene	< 646,8	ug/m3	646.8	2055.2	2800	TO-15		5/6/2019	CJR	1
1,1,2,2-Tetrachloro	oethane	< 910	ug/m3	910	2884	2800	TO-15		5/6/2019	CJR	1
Tetrachloroethene		64000	ug/m3	778.4	2475.2	2800	TO-15		5/6/2019	CJR	1
1,1,1-Trichloroetha	ane	< 697.2	ug/m3	697.2	2220.4	2800	TO-15		5/6/2019	CJR	1
1,1,2-Trichloroeth	ane	< 722.4	ug/m3	722.4	2301.6	2800	TO-15		5/6/2019	CJR	1
Trichloroethene (T	CE)	9700	ug/m3	663.6	2111.2	2800	TO-15		5/6/2019	CJR	1
Vinyl Chloride		< 414.4	ug/m3	414.4	1321.6	2800	TO-15		5/6/2019	CJR	1
Lab Code	5036084G										
Sample ID	VP-6										
Sample Matrix		•									
Sample Date	4/26/2019										
		Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic											
Air Samples											
Chloroform		< 15	ug/m3	15	47.65	50	TO-15		5/7/2019	CJR	1
1,2-Dichloroethane	;	< 12	ug/m3	12	38.15	50	TO-15		5/7/2019	CJR	1
1,1-Dichloroethand	;	< 9.35	ug/m3	9.35	29.8	50	TO-15		5/7/2019	CJR	1
1,1-Dichloroethene	e	< 10.5	ug/m3	10.5	33.4	50	TO-15		5/7/2019	CJR	1
cis-1,2-Dichloroeth	iene	< 9.85	ug/m3	9.85	31.3	50	TO-15		5/7/2019	CJR	1
trans-1,2-Dichloro	ethene	< 11.55	ug/m3	11.55	36.7	50	TO-15		5/7/2019	CJR	1
1,1,2,2-Tetrachloro		< 16.25	ug/m3	16.25	51.5	50	TO-15		5/7/2019	CJR	1
Tetrachloroethene		20100	ug/m3	778.4	2475.2	2800	TO-15		5/6/2019	CJR	1
1,1,1-Trichloroetha	ane	< 12.45	ug/m3	12.45	39.65	50	TO-15		5/7/2019	CJR	1
1,1,2-Trichloroetha	ane	< 12.9	ug/m3	12.9	41.1	50	TO-15		5/7/2019	CJR	1
Trichloroethene (T	CE)	204	ug/m3	11.85	37.7	50	TO-15		5/7/2019	CJR	1
Vinyl Chloride		< 7.4	ug/m3	7.4	23.6	50	TO-15		5/7/2019	CJR	1

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Project Name	DB OAK
Project #	170503

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Invoice # E36084

"J" Flag: Analyte detected between LOD and LOQ

LOD Limit of Detection

LOQ Limit of Quantitation

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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

Michaelfler

Understanding Chemical Vapor Intrusion Testing Results

RR-977

October 2014

From the Lab to You

Chemical vapor samples were taken from underneath your house or building and possibly indoors as well. These samples have been tested by a certified laboratory and a report was issued. The Wisconsin Department of Natural Resources (DNR) uses these test results to determine if people in the building are being exposed to chemical vapors coming from nearby contaminated soil or groundwater, and to decide what, if any, action is needed to prevent this exposure.

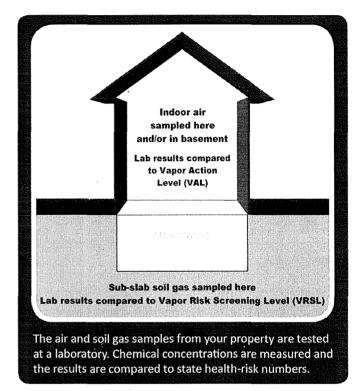
Indoor Air Testing Results

If indoor air samples were collected in your house or building, test results from the lab will be compared to the state Vapor Action Level (VAL) for chemicals of concern. The VAL is a chemical compound's numerical value that represents a health hazard risk to no more than 1 in 100,000 people during a lifetime of exposure. If test results show chemical concentrations in your air below the VAL then adverse health effects are extremely rare, even if you were to breathe the chemical at this concentration for your entire life.

Test results showing chemical concentrations in the air at or above the VAL prompt DNR to recommend that exposure to these chemical vapors be reduced. If test results show concentrations significantly above the VAL, or more than one type of chemical vapor is identified in your indoor air, the risk from exposure increases. If the concentration of any indoor chemical vapor greatly exceeds the VAL, DNR is concerned about even short-term exposure and will typically require immediate action to address the problem.

The VAL for each chemical is set by scientific research. It is protective of all people, including those who are most susceptible to adverse health effects.

If test results identify chemicals in your air that are not present in nearby soil or groundwater contamination, it is likely that these vapors are coming from some product or activity in or near your house or building. Many everyday consumer products (e.g., cleaners, solvents, polish, adhesives, lubricants, aerosols, insect repellants, etc.); combustion processes (e.g., smoking, home heating); fuels in attached garages; dry cleaned clothing or draperies; and occupant activities (e.g., craft hobbies), also release chemical vapors into the air.



Sub-slab Soil Gas Testing Results

Soil gas samples were collected from the ground beneath the concrete slab of your building foundation or basement. The lab measured the concentrations of various chemicals in these samples. DNR compares these measurements to the state Vapor Risk Screening Level (VRSL), which identifies the concentration of a chemical in soil gas that scientific research suggests can be a health risk if vapor enters a building. If soil gas measurements exceed the VRSL for a chemical of concern, action to reduce exposure is strongly recommended.

The VRSL is a higher number (higher chemical concentration) than the VAL because it is presumed that concrete building foundations and basement walls will prevent most soil gas from entering a building. Further, any soil gas that does enter a building through cracks, holes, sump pumps, drains, etc., will be diluted to some extent by the indoor air. So, people inside will not be breathing air that includes the full concentration of chemical vapors that exist in the ground.



Wisconsin Department of Natural Resources P.O. Box 7921, Madison, WI 53707 dnr.wi.gov, search "Brownfields"



DNR generally relies on the test results of the sub-slab soil gas samples when determining what, if any, action should be taken related to chemical vapors coming from nearby soil or groundwater contamination. Indoor air quality is highly variable, and it is difficult to make a definitive decision about vapor intrusion based on indoor air sampling alone.

Follow-Up Actions

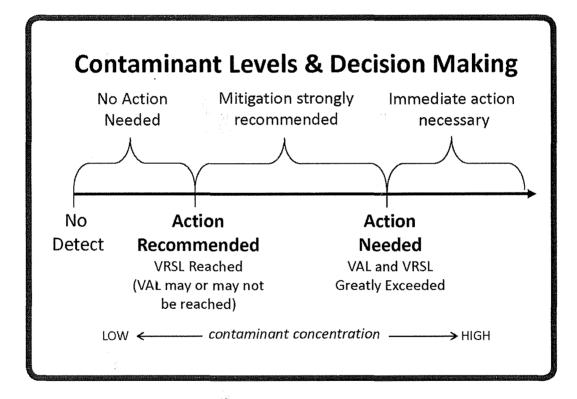
If your test results are less than a VAL for indoor air, or a VRSL for sub-slab soil gas, then the air in the house or building should not present a health concern. Follow-up sampling and testing may be necessary to confirm the results, but no other action is typically suggested.

When test results show soil gas chemical concentrations above a VRSL, both DNR and the Wisconsin Department of

Health Services recommend that owners take action to reduce potential exposure. This typically involves installing a vapor mitigation system that vents chemical vapors from beneath your home or building to the outdoors, similar to a radon mitigation system.

If indoor air concentrations exceed a VAL, but sub-slab concentrations are less than a VRSL, then the chemical vapors are most likely coming from indoor sources. Steps should be taken by the house or building owner to identify the products and practices causing the problem and implement appropriate remedies.

If soil gas mitigation is recommended, a representative of the party who is responsible for the soil or groundwater contamination will contact you to discuss your options.



<u>A Note about Measurement Units</u>: The lab report may include some unfamiliar technical language. The most important point to note is whether or not the test result for a specific chemical exceeds a VAL or VRSL, which are also sometimes referred to, generically, as "screening levels."

The concentration of gaseous pollutants in air is typically described in two different ways: 1) as units of mass per volume, where $\mu g/m3$ represents micrograms of gaseous pollutant per cubic meter of ambient air; and 2) as parts per billion by volume (ppbv), where the volume of a gaseous pollutant is compared to a set volume of ambient air. These are the numbers that are compared to the VAL and VRSL.

For more information, visit dnr.wi.gov/topic/Brownfields/Vapor.html

This document contains information about certain state statutes and administrative rules but does not necessarily include all of the details found in the statutes and rules. Readers should consult the actual language of the statutes and rules to answer specific questions. The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services, and functions under an Affirmative Action Plan. If you have any questions, please write to Equal Opportunity Office, Department of Interior, Washington, D.C. 20240. This publication is available in alternative format upon request. Please call 608-267-3543 for more information.