

December 22, 2021  
File No. 25221094.00

Matthew and Tracy Fernette  
62355 Mill Coulee Road  
Prairie du Chien, WI 53821

Subject: Air Sampling Results  
615 East Wisconsin Street  
Prairie du Chien, Wisconsin

Dear Mr. and Mrs. Fernette:

On behalf of the Prairie du Chien Redevelopment Authority (RDA), SCS Engineers (SCS) is providing results for air samples collected from your property in December 2021. The sampling included collection of one 24-hour indoor air sample from the basement and one 30-minute sub-slab air sample from a port SCS installed through the basement floor. The laboratory report is included in **Attachment A**.

The sample concentrations do not exceed Wisconsin Department of Natural Resources (WDNR) health-based standards. Additional details are provided below.

- Tetrachloroethene (PCE) was detected in the indoor air sample at a concentration of 6.0 micrograms per cubic meter ( $\text{ug}/\text{m}^3$ ). This concentration does not exceed the WDNR residential indoor air vapor action level (VAL) of  $42 \text{ ug}/\text{m}^3$  for PCE.
- PCE was detected in the sub-slab sample at concentration of  $1,130 \text{ ug}/\text{m}^3$ . The concentration does not exceed the WDNR residential sub-slab vapor risk screening level (VRSL) for PCE of  $1,400 \text{ ug}/\text{m}^3$ .

Additional information regarding interpretation of test results is provided in the WDNR guidance document included in **Attachment B**. SCS will contact you to discuss whether or not any follow-up sampling is required by the WDNR.

Please feel free to contact Robert Langdon of SCS at (608) 212-3995 or Matt Vitale of WDNR at (715) 492-1222 if you have any questions concerning the testing.

Sincerely,



Robert Langdon  
Senior Project Manger  
SCS Engineers



Mark R. Huber, PE  
Project Director  
SCS Engineers



Matthew and Tracy Fernette

December 22, 2020

Page 2

REL/AJR/MRH

cc: Matt Vitale, Wisconsin Department of Natural Resources  
Garth Frable, City of Prairie du Chien  
Bob Standorf, City of Prairie du Chien Redevelopment Authority  
Chad Abram, City of Prairie du Chien Redevelopment Authority

Enclosures: Attachment A – Laboratory Report  
Attachment B – WDNR Guidance Document RR-977, Dated October 2014

I:\25221094.00\Correspondence\Other\615 E. Wisconsin Results\211222\_615 E. Wisconsin Sample Results.docx

Attachment A  
Laboratory Report

December 16, 2021

Rob Langdon  
SCS Engineers  
2830 Dairy Dr.  
Madison, WI 53718

RE: Project: 25221094.00 Blackhawk Junction  
Pace Project No.: 10590317

Dear Rob Langdon:

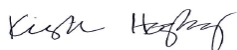
Enclosed are the analytical results for sample(s) received by the laboratory on December 07, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

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

Sincerely,



Kirsten Hogberg  
kirsten.hogberg@pacelabs.com  
(612)607-1700  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
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## CERTIFICATIONS

Project: 25221094.00 Blackhawk Junction

Pace Project No.: 10590317

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### **Pace Analytical Services, LLC - Minneapolis MN**

1700 Elm Street SE, Minneapolis, MN 55414  
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab

A2LA Certification #: 2926.01\*  
Alabama Certification #: 40770  
Alaska Contaminated Sites Certification #: 17-009\*  
Alaska DW Certification #: MN00064  
Arizona Certification #: AZ0014\*  
Arkansas DW Certification #: MN00064  
Arkansas WW Certification #: 88-0680  
California Certification #: 2929  
Colorado Certification #: MN00064  
Connecticut Certification #: PH-0256  
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137  
Florida Certification #: E87605\*  
Georgia Certification #: 959  
Hawaii Certification #: MN00064  
Idaho Certification #: MN00064  
Illinois Certification #: 200011  
Indiana Certification #: C-MN-01  
Iowa Certification #: 368  
Kansas Certification #: E-10167  
Kentucky DW Certification #: 90062  
Kentucky WW Certification #: 90062  
Louisiana DEQ Certification #: AI-03086\*  
Louisiana DW Certification #: MN00064  
Maine Certification #: MN00064\*  
Maryland Certification #: 322  
Michigan Certification #: 9909  
Minnesota Certification #: 027-053-137\*  
Minnesota Dept of Ag Approval: via MN 027-053-137  
Minnesota Petrofund Registration #: 1240\*  
Mississippi Certification #: MN00064

Missouri Certification #: 10100  
Montana Certification #: CERT0092  
Nebraska Certification #: NE-OS-18-06  
Nevada Certification #: MN00064  
New Hampshire Certification #: 2081\*  
New Jersey Certification #: MN002  
New York Certification #: 11647\*  
North Carolina DW Certification #: 27700  
North Carolina WW Certification #: 530  
North Dakota Certification #: R-036  
Ohio DW Certification #: 41244  
Ohio VAP Certification (1700) #: CL101  
Ohio VAP Certification (1800) #: CL110\*  
Oklahoma Certification #: 9507\*  
Oregon Primary Certification #: MN300001  
Oregon Secondary Certification #: MN200001\*  
Pennsylvania Certification #: 68-00563\*  
Puerto Rico Certification #: MN00064  
South Carolina Certification #: 74003001  
Tennessee Certification #: TN02818  
Texas Certification #: T104704192\*  
Utah Certification #: MN00064\*  
Vermont Certification #: VT-027053137  
Virginia Certification #: 460163\*  
Washington Certification #: C486\*  
West Virginia DEP Certification #: 382  
West Virginia DW Certification #: 9952 C  
Wisconsin Certification #: 999407970  
Wyoming UST Certification #: via A2LA 2926.01  
USDA Permit #: P330-19-00208  
\*Please Note: Applicable air certifications are denoted with an asterisk (\*).

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 25221094.00 Blackhawk Junction

Pace Project No.: 10590317

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10590317001	615 E. Wisconsin St-IA	Air	12/03/21 09:02	12/07/21 11:50
10590317002	615 E. Wisconsin St-SB	Air	12/03/21 10:00	12/07/21 11:50
10590317003	UNUSED PACE0666	Air		12/07/21 11:50

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### SAMPLE ANALYTE COUNT

Project: 25221094.00 Blackhawk Junction  
Pace Project No.: 10590317

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10590317001	615 E. Wisconsin St-IA	TO-15	AJA	5	PASI-M
10590317002	615 E. Wisconsin St-SB	TO-15	AJA	5	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 25221094.00 Blackhawk Junction

Pace Project No.: 10590317

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>10590317001</b>	<b>615 E. Wisconsin St-IA</b>					
TO-15	Tetrachloroethene	6.0	ug/m3	1.0	12/15/21 17:39	
<b>10590317002</b>	<b>615 E. Wisconsin St-SB</b>					
TO-15	Tetrachloroethene	1130	ug/m3	12.1	12/16/21 12:49	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 25221094.00 Blackhawk Junction

Pace Project No.: 10590317

**Sample: 615 E. Wisconsin St-IA**      **Lab ID: 10590317001**      Collected: 12/03/21 09:02      Received: 12/07/21 11:50      Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
Vinyl chloride	<0.13	ug/m3	0.77	0.13	1.49		12/15/21 17:39	75-01-4	
cis-1,2-Dichloroethene	<0.29	ug/m3	1.2	0.29	1.49		12/15/21 17:39	156-59-2	
Trichloroethene	<0.29	ug/m3	1.6	0.29	1.49		12/15/21 17:39	79-01-6	
Tetrachloroethene	6.0	ug/m3	1.0	0.44	1.49		12/15/21 17:39	127-18-4	
trans-1,2-Dichloroethene	<0.25	ug/m3	1.2	0.25	1.49		12/15/21 17:39	156-60-5	

**Sample: 615 E. Wisconsin St-SB**      **Lab ID: 10590317002**      Collected: 12/03/21 10:00      Received: 12/07/21 11:50      Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
cis-1,2-Dichloroethene	<0.34	ug/m3	1.4	0.34	1.75		12/15/21 18:57	156-59-2	
trans-1,2-Dichloroethene	<0.29	ug/m3	1.4	0.29	1.75		12/15/21 18:57	156-60-5	
Tetrachloroethene	1130	ug/m3	12.1	5.1	17.5		12/16/21 12:49	127-18-4	
Trichloroethene	<0.34	ug/m3	1.9	0.34	1.75		12/15/21 18:57	79-01-6	
Vinyl chloride	<0.15	ug/m3	0.91	0.15	1.75		12/15/21 18:57	75-01-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 25221094.00 Blackhawk Junction  
Pace Project No.: 10590317

QC Batch: 789283      Analysis Method: TO-15  
QC Batch Method: TO-15      Analysis Description: TO15 MSV AIR Low Level  
Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 10590317001, 10590317002

METHOD BLANK: 4200898      Matrix: Air

Associated Lab Samples: 10590317001, 10590317002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.20	0.81	12/15/21 11:14	
Tetrachloroethene	ug/m3	<0.29	0.69	12/15/21 11:14	
trans-1,2-Dichloroethene	ug/m3	<0.17	0.81	12/15/21 11:14	
Trichloroethene	ug/m3	<0.20	1.1	12/15/21 11:14	
Vinyl chloride	ug/m3	<0.087	0.52	12/15/21 11:14	

LABORATORY CONTROL SAMPLE: 4200899

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/m3	43.4	40.6	94	70-137	
Tetrachloroethene	ug/m3	73.4	70.5	96	70-130	
trans-1,2-Dichloroethene	ug/m3	43.6	42.7	98	70-130	
Trichloroethene	ug/m3	58.4	60.9	104	70-130	
Vinyl chloride	ug/m3	28	26.0	93	70-137	

SAMPLE DUPLICATE: 4202828

Parameter	Units	10590316001 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.28	<0.28		25	
Tetrachloroethene	ug/m3	23.2	23.6	2	25	
trans-1,2-Dichloroethene	ug/m3	<0.25	<0.25		25	
Trichloroethene	ug/m3	<0.29	<0.29		25	
Vinyl chloride	ug/m3	<0.13	<0.13		25	

SAMPLE DUPLICATE: 4202829

Parameter	Units	10590317001 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.29	<0.29		25	
Tetrachloroethene	ug/m3	6.0	5.5	9	25	
trans-1,2-Dichloroethene	ug/m3	<0.25	<0.25		25	
Trichloroethene	ug/m3	<0.29	<0.29		25	
Vinyl chloride	ug/m3	<0.13	<0.13		25	

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

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## QUALIFIERS

Project: 25221094.00 Blackhawk Junction

Pace Project No.: 10590317

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### DEFINITIONS

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

ND - Not Detected at or above LOD.

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

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

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25221094.00 Blackhawk Junction

Pace Project No.: 10590317

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<b>Lab ID</b>	<b>Sample ID</b>	<b>QC Batch Method</b>	<b>QC Batch</b>	<b>Analytical Method</b>	<b>Analytical Batch</b>
10590317001	615 E. Wisconsin St-IA	TO-15	789283		
10590317002	615 E. Wisconsin St-SB	TO-15	789283		

### REPORT OF LABORATORY ANALYSIS

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# AIR: CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

50281

Page: 1 of 1

<b>Section A</b> Required Client Information: Company: SCS Engineers Address: 2830 Dairy Dr, Madison, WI Email To: rlangdon@scsengineers.com Phone: 608 212 3995 Requested Due Date/TAT: standard	<b>Section B</b> Required Project Information: Report To: Robert Langdon SCS Copy To: Purchase Order No.: Project Name: Blackhawk Junction Project Number: 25221094.00	<b>Section C</b> Invoice Information: Attention: Robert Langdon Company Name: SCS Address: 2830 Dairy Dr, Madison, WI 53718 Pace Quote Reference: Pace Project Manager/Sales Rep: Kirsten Hagberg Pace Profile #: 32630	Program <input type="checkbox"/> UST <input type="checkbox"/> Superfund <input type="checkbox"/> Emissions <input type="checkbox"/> Clean Air Act <input type="checkbox"/> Voluntary Clean Up <input checked="" type="checkbox"/> Dry Clean <input type="checkbox"/> RCRA <input type="checkbox"/> Other Location of Sampling by State: WI Reporting Units: ug/m <sup>3</sup> , mg/m <sup>3</sup> , PPBV, PPMV, Other Report Level: II, III, IV, Other
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ITEM #	'Section D Required Client Information AIR SAMPLE ID Sample IDs MUST BE UNIQUE	Valid Media Codes MEDIA CODE Tedlar Bag TB 1 Liter Summa Can 1LC 6 Liter Summa Can 6LC Low Volume Puff LVP High Volume Puff HVP Other PM10	MEDIA CODE	PID Reading (Client only)	COLLECTED				Canister Pressure (Initial Field - in Hg)	Canister Pressure (Final Field - in Hg)	Summa Can Number	Flow Control Number	Method: PM10 3C - Fixed Gas (%) TO-9 BTEX TO-15M (Methane) TO-14 TO-15 Full List VOCs TO-15 Short List BTEX TO-15 Short List Chlorinated (Other)	Pace Lab ID
					COMPOSITE START		COMPOSITE - END/GRAB							
					DATE	TIME	DATE	TIME						
1	615 E. Wisconsin St. - IA	66645	12/2/21	1005	12/3/21	902	-25	-1	3591	1029	X	001		
2	127 S. Dousman St. - IA	6660	12/2/21	1200	12/3/21	1057	-30	-4	1490	2106	X			
3	201 S. Dousman St. - IA	6660	12/2/21	1402	12/3/21	1306	-28	-18	2092	0879	X			
4	615 E. Wisconsin St. - SB	6660	12/3/21	922	12/3/21	1000	-30	-8	0194	0925	X	002		
5	127 S. Dousman St. - SB	6660	12/3/21	1107	12/3/21	1140	-30	-8	1196	2968	X			
6	201 S. Dousman St. - SB	6660	12/3/21	1320	12/3/21	1350	-215	-6	1522	1588	X			

Comments: Analyze for: PCE, TCE, cis & Trans 1,2 DCE and vinyl chloride	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS				
	Robert Langdon / SCS	12/4	1200	Matt [Signature] / [Affiliation]	12/7/21	11:50	-	Y/N	Y/N	Y/N	Y/N
								Y/N	Y/N	Y/N	Y/N
								Y/N	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
PRINT Name of SAMPLER: Robert Langdon SIGNATURE of SAMPLER: [Signature]	DATE Signed (MM / DD / YY) 12/4/21				

WO#: 10590317



**Air Sample Condition Upon Receipt** Client Name: SCS Eng. Project #: \_\_\_\_\_

Courier:  FedEx  UPS  USPS  Client  
 Pace  Speedee  Commercial

Tracking Number: 975384476341, 3526, 3537  See Exception

Custody Seal on Cooler/Box Present?  Yes  No

Seals Intact?  Yes  No

Packing Material:  Bubble Wrap  Bubble Bags  Foam  
 None  Tin Can  Other: \_\_\_\_\_

**WO#: 10590317**  
 PM: KNH Due Date: 12/14/21  
 CLIENT: SCS Engineer  
 Date & Initials of Person Examining Contents: 12-7-21 mZ

				Comments:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		2.
Chain of Custody Relinquished?	<input type="checkbox"/> Yes	<input type="checkbox"/> No		3.
Sampler Name and/or Signature on COC?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		8.
Correct Containers Used?				9.
(Tedlar bags not acceptable container for TO-15 or APH)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Containers Intact?				10.
(visual inspection/no leaks when pressurized)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Media: <u>(Air Can)</u>   Airbag				11. Individually Certified Cans? Y   <u>N</u> (list which samples)
Is sufficient information available to reconcile samples to the COC?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		12.
Do cans need to be pressurized? (DO NOT PRESSURIZE 3C or ASTM 1946!!!)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		13.

Gauge #: <input type="checkbox"/> 10AIR26 <input type="checkbox"/> 10AIR34 <input type="checkbox"/> 10AIR35 <input type="checkbox"/> 10AIR17 <input checked="" type="checkbox"/> 10AIR47 <input type="checkbox"/> 10AIR48									
Canisters					Canisters				
Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
<u>615-IA</u>	<u>3591</u>	<u>1029</u>	<u>-3</u>	<u>+5</u>					
<u>11-SB</u>	<u>194</u>	<u>925</u>	<u>-7</u>	<u>+5</u>					
<u>Unused</u>	<u>666</u>	<u>-</u>	<u>-3</u>	<u>-</u>					

**CLIENT NOTIFICATION/RESOLUTION** Field Data Required?  Yes  No

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

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

\_\_\_\_\_

\_\_\_\_\_

Project Manager Review: Kirsten Hogberg Date: 12/8/2021

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).



Pace Analytical Services, LLC  
 1700 Elm Street, Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers Lab Project Number: 10590317  
 Phone: 843.746.8525 Project Name: 25221094.00 Blackhawk Junction  
 Lab Sample No: 10590317001 ProjSampleNum: 10590317001 Date Collected: 12/03/21 9:02  
 Client Sample ID: 615 E. Wisconsin St-IA Matrix: Air Date Received: 12/07/21 11:50

Parameters	Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.072	ppbv	0.3	1.49	12/15/21 17:39	AJA 156-59-2	
Tetrachloroethene	0.87	ppbv	0.15	1.49	12/15/21 17:39	AJA 127-18-4	
trans-1,2-Dichloroethene	<0.062	ppbv	0.3	1.49	12/15/21 17:39	AJA 156-60-5	
Trichloroethene	<0.053	ppbv	0.29	1.49	12/15/21 17:39	AJA 79-01-6	
Vinyl chloride	<0.05	ppbv	0.3	1.49	12/15/21 17:39	AJA 75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**  
 Units Conversion Request



Pace Analytical Services, LLC  
 1700 Elm Street, Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers Lab Project Number: 10590317  
 Phone: 843.746.8525 Project Name: 25221094.00 Blackhawk Junction  
 Lab Sample No: 10590317002 ProjSampleNum: 10590317002 Date Collected: 12/03/21 10:00  
 Client Sample ID: 615 E. Wisconsin St-SB Matrix: Air Date Received: 12/07/21 11:50

Parameters	Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.084	ppbv	0.35	1.75	12/15/21 18:57	AJA 156-59-2	
Tetrachloroethene	164	ppbv	1.8	17.5	12/16/21 12:49	AJA 127-18-4	
trans-1,2-Dichloroethene	<0.072	ppbv	0.35	1.75	12/15/21 18:57	AJA 156-60-5	
Trichloroethene	<0.062	ppbv	0.35	1.75	12/15/21 18:57	AJA 79-01-6	
Vinyl chloride	<0.058	ppbv	0.35	1.75	12/15/21 18:57	AJA 75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**  
 Units Conversion Request





Pace Analytical Services, LLC  
1700 Elm Street, Suite 200  
Minneapolis, MN 55414  
Phone: 612.607.1700  
Fax: 612.607.6444

## ANALYTICAL RESULTS

Client: SCS Engineers  
Phone: 843.746.8525

Lab Project Number: 10590317  
Project Name: 25221094.00 Blackhawk Junction

---

## PARAMETER FOOTNOTES

## SUPPLEMENTAL REPORT

Units Conversion Request

Date: 12/16/2021

Page 3



Attachment B

WDNR Guidance Document RR-977, Dated October 2014



# Understanding Chemical Vapor Intrusion Testing Results

## 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.

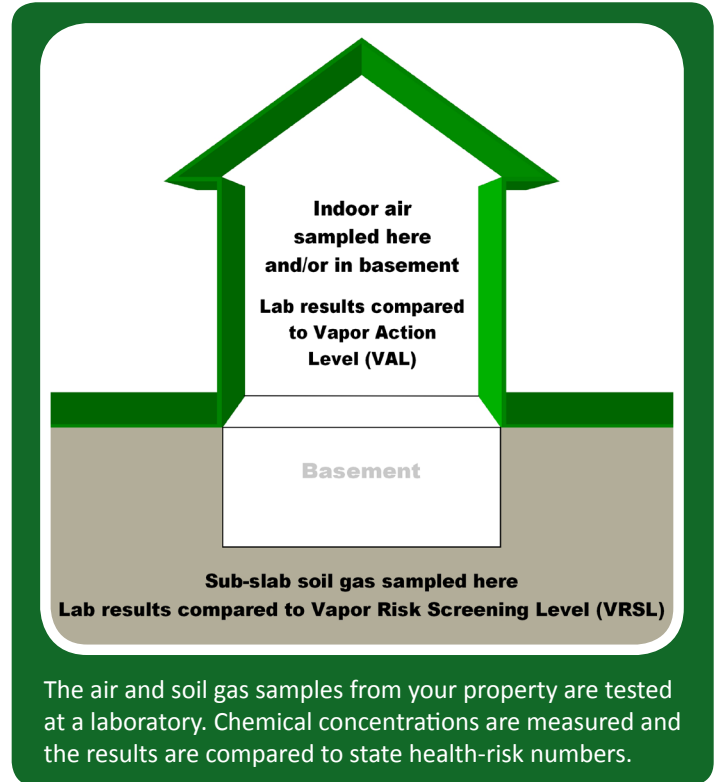
## Indoor Air Testing Results

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.



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

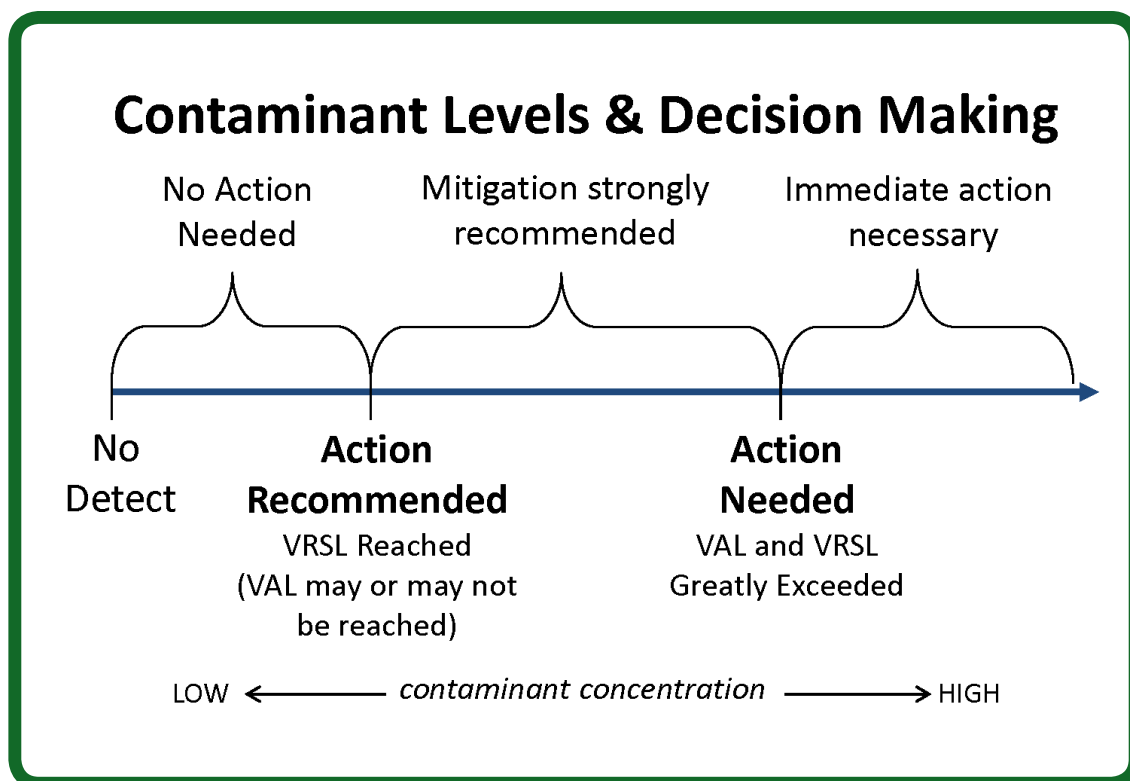
If your test results are less than a VAL for indoor air, or a VRSL for sub-slab soil gas, then the air in the house or building should not present a health concern. Follow-up sampling and testing may be necessary to confirm the results, but no other action is typically suggested.

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.



**A Note about Measurement Units:** 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  $\mu\text{g}/\text{m}^3$  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](http://dnr.wi.gov/topic/Brownfields/Vapor.html)

December 22, 2021  
File No. 25221094.00

Ms. Imgard Hogenson  
201 South Dousman Street  
Prairie du Chien, WI 53821

Subject: Air Sampling Results  
201 South Dousman Street  
Prairie du Chien, Wisconsin

Dear Ms. Hogenson:

On behalf of the Prairie du Chien Redevelopment Authority (RDA), SCS Engineers (SCS) is providing results for air samples collected from your property in December 2021. The sampling included collection of one 24-hour indoor air sample from the basement and one 30-minute sub-slab air sample from a port SCS installed through the basement floor. The laboratory report is included in **Attachment A**.

The sample concentrations do not exceed Wisconsin Department of Natural Resources (WDNR) health-based standards. Additional details are provided below.

- Tetrachloroethene (PCE) was detected in the indoor air sample at a concentration of 2.5 micrograms per cubic meter ( $\text{ug}/\text{m}^3$ ). This concentration does not exceed the WDNR residential indoor air vapor action level (VAL) of  $42 \text{ ug}/\text{m}^3$  for PCE.
- PCE and trichloroethene (TCE) were detected in the sub-slab sample at concentrations of  $195 \text{ ug}/\text{m}^3$  and  $0.57 \text{ ug}/\text{m}^3$ . The concentrations do not exceed the WDNR residential sub-slab vapor risk screening levels (VRSLs) for PCE or TCE, which are  $1,400 \text{ ug}/\text{m}^3$  and  $70 \text{ ug}/\text{m}^3$ .

Additional information regarding interpretation of test results is provided in the WDNR guidance document included in **Attachment B**. SCS will contact you to discuss whether or not any follow-up sampling is required by WDNR.

Please feel free to contact Robert Langdon of SCS at (608) 212-3995 or Matt Vitale of WDNR at (715) 492-1222 if you have any questions concerning the testing.

Sincerely,



Robert Langdon  
Senior Project Manger  
SCS Engineers



Mark R. Huber, PE  
Project Director  
SCS Engineers



Imgard Hogenson  
December 22, 2020  
Page 2

REL/AJR/MRH

cc: Matt Vitale, Wisconsin Department of Natural Resources  
Garth Frable, City of Prairie du Chien  
Bob Standorf, City of Prairie du Chien Redevelopment Authority  
Chad Abram, City of Prairie du Chien Redevelopment Authority

Enclosures: Attachment A – Laboratory Report  
Attachment B – WDNR Guidance Document RR-977, Dated October 2014

I:\25221094.00\Correspondence\Other\201 S. Dousman Results\211222\_201 S. Dousman Sample Results.docx

Attachment A  
Laboratory Report

December 16, 2021

Rob Langdon  
SCS Engineers  
2830 Dairy Dr.  
Madison, WI 53718

RE: Project: 25221094.00 Blackhawk Junction  
Pace Project No.: 10590312

Dear Rob Langdon:

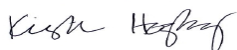
Enclosed are the analytical results for sample(s) received by the laboratory on December 07, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

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

Sincerely,



Kirsten Hogberg  
kirsten.hogberg@pacelabs.com  
(612)607-1700  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
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## CERTIFICATIONS

Project: 25221094.00 Blackhawk Junction

Pace Project No.: 10590312

---

### **Pace Analytical Services, LLC - Minneapolis MN**

1700 Elm Street SE, Minneapolis, MN 55414

A2LA Certification #: 2926.01\*

1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab

Alabama Certification #: 40770

Alaska Contaminated Sites Certification #: 17-009\*

Alaska DW Certification #: MN00064

Arizona Certification #: AZ0014\*

Arkansas DW Certification #: MN00064

Arkansas WW Certification #: 88-0680

California Certification #: 2929

Colorado Certification #: MN00064

Connecticut Certification #: PH-0256

EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137

Florida Certification #: E87605\*

Georgia Certification #: 959

Hawaii Certification #: MN00064

Idaho Certification #: MN00064

Illinois Certification #: 200011

Indiana Certification #: C-MN-01

Iowa Certification #: 368

Kansas Certification #: E-10167

Kentucky DW Certification #: 90062

Kentucky WW Certification #: 90062

Louisiana DEQ Certification #: AI-03086\*

Louisiana DW Certification #: MN00064

Maine Certification #: MN00064\*

Maryland Certification #: 322

Michigan Certification #: 9909

Minnesota Certification #: 027-053-137\*

Minnesota Dept of Ag Approval: via MN 027-053-137

Minnesota Petrofund Registration #: 1240\*

Mississippi Certification #: MN00064

Missouri Certification #: 10100

Montana Certification #: CERT0092

Nebraska Certification #: NE-OS-18-06

Nevada Certification #: MN00064

New Hampshire Certification #: 2081\*

New Jersey Certification #: MN002

New York Certification #: 11647\*

North Carolina DW Certification #: 27700

North Carolina WW Certification #: 530

North Dakota Certification #: R-036

Ohio DW Certification #: 41244

Ohio VAP Certification (1700) #: CL101

Ohio VAP Certification (1800) #: CL110\*

Oklahoma Certification #: 9507\*

Oregon Primary Certification #: MN300001

Oregon Secondary Certification #: MN200001\*

Pennsylvania Certification #: 68-00563\*

Puerto Rico Certification #: MN00064

South Carolina Certification #:74003001

Tennessee Certification #: TN02818

Texas Certification #: T104704192\*

Utah Certification #: MN00064\*

Vermont Certification #: VT-027053137

Virginia Certification #: 460163\*

Washington Certification #: C486\*

West Virginia DEP Certification #: 382

West Virginia DW Certification #: 9952 C

Wisconsin Certification #: 999407970

Wyoming UST Certification #: via A2LA 2926.01

USDA Permit #: P330-19-00208

\*Please Note: Applicable air certifications are denoted with an asterisk (\*).

---

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 25221094.00 Blackhawk Junction

Pace Project No.: 10590312

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10590312001	201 S. Dousman St-IA	Air	12/03/21 13:06	12/07/21 11:50
10590312002	201 S. Dousman St-SB	Air	12/03/21 13:50	12/07/21 11:50

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 25221094.00 Blackhawk Junction  
Pace Project No.: 10590312

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10590312001	201 S. Dousman St-IA	TO-15	AJA	5	PASI-M
10590312002	201 S. Dousman St-SB	TO-15	AJA	5	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 25221094.00 Blackhawk Junction

Pace Project No.: 10590312

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>10590312001</b>	<b>201 S. Dousman St-IA</b>					
TO-15	Tetrachloroethene	2.5	ug/m3	1.2	12/15/21 14:24	
<b>10590312002</b>	<b>201 S. Dousman St-SB</b>					
TO-15	Tetrachloroethene	195	ug/m3	1.2	12/15/21 15:03	
TO-15	Trichloroethene	0.57J	ug/m3	1.8	12/15/21 15:03	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 25221094.00 Blackhawk Junction

Pace Project No.: 10590312

**Sample: 201 S. Dousman St-IA**      **Lab ID: 10590312001**      Collected: 12/03/21 13:06      Received: 12/07/21 11:50      Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
cis-1,2-Dichloroethene	<0.34	ug/m3	1.4	0.34	1.76		12/15/21 14:24	156-59-2	
trans-1,2-Dichloroethene	<0.30	ug/m3	1.4	0.30	1.76		12/15/21 14:24	156-60-5	
Tetrachloroethene	2.5	ug/m3	1.2	0.51	1.76		12/15/21 14:24	127-18-4	
Trichloroethene	<0.34	ug/m3	1.9	0.34	1.76		12/15/21 14:24	79-01-6	
Vinyl chloride	<0.15	ug/m3	0.92	0.15	1.76		12/15/21 14:24	75-01-4	

**Sample: 201 S. Dousman St-SB**      **Lab ID: 10590312002**      Collected: 12/03/21 13:50      Received: 12/07/21 11:50      Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
cis-1,2-Dichloroethene	<0.33	ug/m3	1.4	0.33	1.68		12/15/21 15:03	156-59-2	
trans-1,2-Dichloroethene	<0.28	ug/m3	1.4	0.28	1.68		12/15/21 15:03	156-60-5	
Tetrachloroethene	195	ug/m3	1.2	0.49	1.68		12/15/21 15:03	127-18-4	
Trichloroethene	0.57J	ug/m3	1.8	0.33	1.68		12/15/21 15:03	79-01-6	
Vinyl chloride	<0.15	ug/m3	0.87	0.15	1.68		12/15/21 15:03	75-01-4	

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 25221094.00 Blackhawk Junction

Pace Project No.: 10590312

QC Batch: 789283

Analysis Method: TO-15

QC Batch Method: TO-15

Analysis Description: TO15 MSV AIR Low Level

Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 10590312001, 10590312002

METHOD BLANK: 4200898

Matrix: Air

Associated Lab Samples: 10590312001, 10590312002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.20	0.81	12/15/21 11:14	
Tetrachloroethene	ug/m3	<0.29	0.69	12/15/21 11:14	
trans-1,2-Dichloroethene	ug/m3	<0.17	0.81	12/15/21 11:14	
Trichloroethene	ug/m3	<0.20	1.1	12/15/21 11:14	
Vinyl chloride	ug/m3	<0.087	0.52	12/15/21 11:14	

LABORATORY CONTROL SAMPLE: 4200899

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/m3	43.4	40.6	94	70-137	
Tetrachloroethene	ug/m3	73.4	70.5	96	70-130	
trans-1,2-Dichloroethene	ug/m3	43.6	42.7	98	70-130	
Trichloroethene	ug/m3	58.4	60.9	104	70-130	
Vinyl chloride	ug/m3	28	26.0	93	70-137	

SAMPLE DUPLICATE: 4202828

Parameter	Units	10590316001 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.28	<0.28		25	
Tetrachloroethene	ug/m3	23.2	23.6	2	25	
trans-1,2-Dichloroethene	ug/m3	<0.25	<0.25		25	
Trichloroethene	ug/m3	<0.29	<0.29		25	
Vinyl chloride	ug/m3	<0.13	<0.13		25	

SAMPLE DUPLICATE: 4202829

Parameter	Units	10590317001 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.29	<0.29		25	
Tetrachloroethene	ug/m3	6.0	5.5	9	25	
trans-1,2-Dichloroethene	ug/m3	<0.25	<0.25		25	
Trichloroethene	ug/m3	<0.29	<0.29		25	
Vinyl chloride	ug/m3	<0.13	<0.13		25	

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

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: 25221094.00 Blackhawk Junction

Pace Project No.: 10590312

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### DEFINITIONS

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

ND - Not Detected at or above LOD.

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

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

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25221094.00 Blackhawk Junction  
Pace Project No.: 10590312

---

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10590312001	201 S. Dousman St-IA	TO-15	789283		
10590312002	201 S. Dousman St-SB	TO-15	789283		

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# AIR: CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

50281

Page: 1 of 1

<b>Section A</b> Required Client Information: Company: <u>SCS Engineers</u> Address: <u>2830 Dairy Dr, Madison, WI</u> Email To: <u>rlangdon@scsengineers.com</u> Phone: <u>608.212.3995</u> Requested Due Date/TAT: <u>standard</u>	<b>Section B</b> Required Project Information: Report To: <u>Robert Langdon SCS</u> Copy To: _____ Purchase Order No.: _____ Project Name: <u>Blackhawk Junction</u> Project Number: <u>25221094.00</u>	<b>Section C</b> Invoice Information: Attention: <u>Robert Langdon</u> Company Name: <u>SCS</u> Address: <u>2830 Dairy Dr, Madison, WI 53718</u> Pace Quote Reference: _____ Pace Project Manager/Sales Rep.: <u>Kirsten Hojberg</u> Pace Profile #: <u>32630</u>	Program <input type="checkbox"/> UST <input type="checkbox"/> Superfund <input type="checkbox"/> Emissions <input type="checkbox"/> Clean Air Act <input type="checkbox"/> Voluntary Clean Up <input checked="" type="checkbox"/> Dry Clean <input type="checkbox"/> RCRA <input type="checkbox"/> Other Location of Sampling by State: <u>WI</u> Reporting Units: ug/m <sup>3</sup> _____ mg/m <sup>3</sup> _____ PPBV <input checked="" type="checkbox"/> PPMV _____ Other _____ Report Level: II _____ III _____ IV _____ Other _____
--	---	--	---

ITEM #	'Section D Required Client Information <b>AIR SAMPLE ID</b> Sample IDs MUST BE UNIQUE	Valid Media Codes MEDIA CODE	COLLECTED	Canister Pressure (Initial Field - in Hg)	Canister Pressure (Final Field - in Hg)	Summa Can Number	Flow Control Number	Method:							Pace Lab ID			
								COMPOSITE START		COMPOSITE - END/GRAB		PID Reading (Client only)	TO-15 Full List VOCs	TO-15 Short List		TO-15 Short List Chlorinated	TO-15 Short List (other)	
								DATE	TIME	DATE	TIME							Method
1	615 E. Wisconsin St. - IA	62645	12/2/21 1005	12/3/21 902	-25	-1	3591	1029										
2	127 S. Dousman St. - IA	62640	12/2/21 1200	12/3/21 1057	-30	-4	1490	2106										
3	201 S. Dousman St. - IA	62640	12/2/21 1402	12/3/21 1306	-28	-18	2092	0879										001
4	615 E. Wisconsin St. - SB	62640	12/3/21 922	12/3/21 1000	-30	-8	0194	0925										
5	127 S. Dousman St. - SB	62640	12/3/21 1107	12/3/21 1140	-30	-8	1196	2968										
6	201 S. Dousman St. - SB	62640	12/3/21 1320	12/3/21 1350	-29.5	-6	1522	1588										002

Comments: Analyze for:  
 PCE, TCE, cis & Trans  
 1,2 DCE and vinyl chloride

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Robert Langdon / SCS	12/4	1200	Matt [Signature] / Pace	12/7/21	11:50	Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
						Y/N	Y/N	Y/N	Y/N
						Y/N	Y/N	Y/N	Y/N
						Y/N	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE  
 PRINT Name of SAMPLER: Robert Langdon  
 SIGNATURE of SAMPLER: [Signature] DATE Signed (MM/DD/YY): 12/14/21

WO#: 10590312



**Air Sample Condition Upon Receipt** Client Name: SCS Eng. Project #: **WO#: 10590312**

Courier:  FedEx  UPS  USPS  Client  
 Pace  Speedee  Commercial

Tracking Number: 975384476341, 3526, 3537  See Exception

PM: **KNH** Due Date: **12/14/21**  
 CLIENT: **SCS Engineer**

Custody Seal on Cooler/Box Present?  Yes  No  
 Seals Intact?  Yes  No  
 Packing Material:  Bubble Wrap  Bubble Bags  Foam  
 None  Tin Can  Other: \_\_\_\_\_

Date & Initials of Person Examining Contents: 12-7-21 KNH

				Comments:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		3.
Sampler Name and/or Signature on COC?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		8.
Correct Containers Used?				9.
(Tedlar bags not acceptable container for TO-15 or APH)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Containers Intact?				10.
(visual inspection/no leaks when pressurized)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Media: <u>(Air Can)</u>   Airbag				11. Individually Certified Cans? Y   <u>N</u> (list which samples)
Is sufficient information available to reconcile samples to the COC?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		12.
Do cans need to be pressurized? (DO NOT PRESSURIZE 3C or ASTM 1946!!!)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		13.

Gauge #:  10AIR26  10AIR34  10AIR35  10AIR17  10AIR47  10AIR48

Canisters					Canisters				
Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
<u>201-IA</u>	<u>2092</u>	<u>879</u>	<u>-18.5</u>	<u>+5</u>					
<u>11-SB</u>	<u>1522</u>	<u>1588</u>	<u>-6</u>	<u>+5</u>					

**CLIENT NOTIFICATION/RESOLUTION**

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Field Data Required?  Yes  No

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

\_\_\_\_\_

Project Manager Review: Kirsten Hogberg Date: 12/8/2021

*Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).*



Pace Analytical Services, LLC  
 1700 Elm Street, Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers Lab Project Number: 10590312  
 Phone: 843.746.8525 Project Name: 25221094.00 Blackhawk Junction  
 Lab Sample No: 10590312001 ProjSampleNum: 10590312001 Date Collected: 12/03/21 13:06  
 Client Sample ID: 201 S. Dousman St-IA Matrix: Air Date Received: 12/07/21 11:50

Parameters	Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.084	ppbv	0.35	1.76	12/15/21 14:24	AJA 156-59-2	
Tetrachloroethene	0.36	ppbv	0.17	1.76	12/15/21 14:24	AJA 127-18-4	
trans-1,2-Dichloroethene	<0.074	ppbv	0.35	1.76	12/15/21 14:24	AJA 156-60-5	
Trichloroethene	<0.062	ppbv	0.35	1.76	12/15/21 14:24	AJA 79-01-6	
Vinyl chloride	<0.058	ppbv	0.35	1.76	12/15/21 14:24	AJA 75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**  
 Units Conversion Request



Pace Analytical Services, LLC  
 1700 Elm Street, Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers Lab Project Number: 10590312  
 Phone: 843.746.8525 Project Name: 25221094.00 Blackhawk Junction  
 Lab Sample No: 10590312002 ProjSampleNum: 10590312002 Date Collected: 12/03/21 13:50  
 Client Sample ID: 201 S. Dousman St-SB Matrix: Air Date Received: 12/07/21 11:50

Parameters	Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.082	ppbv	0.35	1.68	12/15/21 15:03	AJA 156-59-2	
Tetrachloroethene	28.3	ppbv	0.17	1.68	12/15/21 15:03	AJA 127-18-4	
trans-1,2-Dichloroethene	<0.069	ppbv	0.35	1.68	12/15/21 15:03	AJA 156-60-5	
Trichloroethene	0.1J	ppbv	0.33	1.68	12/15/21 15:03	AJA 79-01-6	
Vinyl chloride	<0.058	ppbv	0.33	1.68	12/15/21 15:03	AJA 75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**  
 Units Conversion Request



Pace Analytical Services, LLC  
1700 Elm Street, Suite 200  
Minneapolis, MN 55414  
Phone: 612.607.1700  
Fax: 612.607.6444

## ANALYTICAL RESULTS

Client: SCS Engineers  
Phone: 843.746.8525

Lab Project Number: 10590312  
Project Name: 25221094.00 Blackhawk Junction

---


## PARAMETER FOOTNOTES

## SUPPLEMENTAL REPORT

Units Conversion Request

Date: 12/16/2021

Page 3



Attachment B

WDNR Guidance Document RR-977, Dated October 2014



# Understanding Chemical Vapor Intrusion Testing Results

## 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.

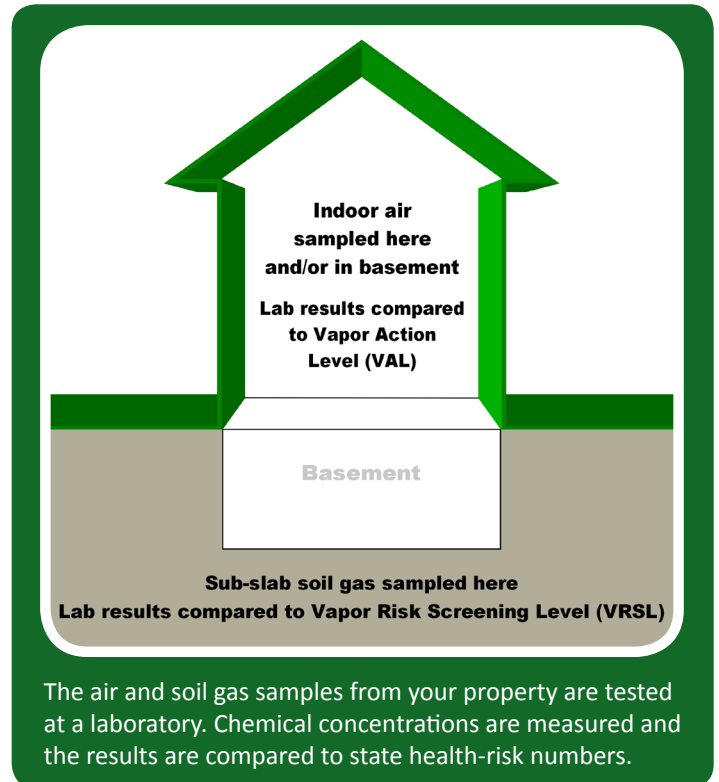
## Indoor Air Testing Results

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.



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

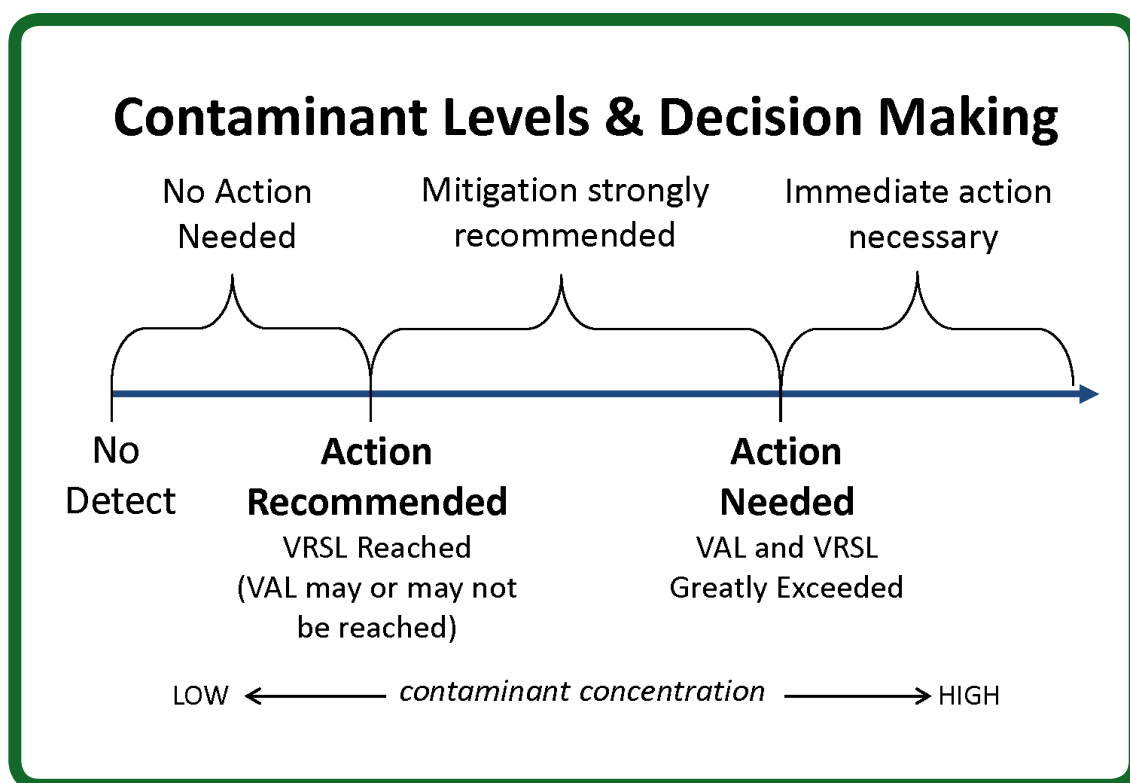
If your test results are less than a VAL for indoor air, or a VRSL for sub-slab soil gas, then the air in the house or building should not present a health concern. Follow-up sampling and testing may be necessary to confirm the results, but no other action is typically suggested.

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.



**A Note about Measurement Units:** 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  $\mu\text{g}/\text{m}^3$  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](http://dnr.wi.gov/topic/Brownfields/Vapor.html)



December 22, 2021  
File No. 25221094.00

Don and Cynthia Hertrampf  
127 South Dousman Street  
Prairie du Chien, WI 53821

Subject: Air Sampling Results for Second Sampling Event  
127 South Dousman Street  
Prairie du Chien, Wisconsin

Dear Mr. and Mrs. Hertrampf:

On behalf of the Prairie du Chien Redevelopment Authority (RDA), SCS Engineers (SCS) is providing results for air samples collected from your property in December 2021. The sampling included collection of one 24-hour indoor air sample from the basement and one 30-minute sub-slab air sample from a port SCS installed through the basement floor. The laboratory report is included in **Attachment A**. Additional details are provided below.

- The chemicals detected in the indoor air sample do not exceed Wisconsin Department of Natural Resources (WDNR) vapor action levels (VALs) for residential buildings.
- Tetrachloroethene (PCE) was detected in the sub-slab sample at a concentration in excess of WDNR's vapor risk screening level (VRSL) for residential buildings.

The December 2021 sample results are consistent with results from the prior sampling performed in October 2021. Additional information regarding interpretation of test results is provided in the WDNR guidance document included in **Attachment B**.

We are currently discussing the sampling results with the WDNR and plan to contact you soon to discuss next steps.

Please feel free to contact Robert Langdon of SCS at (608) 212-3995 or Matt Vitale of WDNR at (715) 492-1222 if you have any questions concerning the testing.

Sincerely,



Robert Langdon  
Senior Project Manager  
SCS Engineers



Mark R. Huber, PE  
Project Director  
SCS Engineers

REL/AJR/MRH



Don and Cynthia Hertrampf

December 22, 2020

Page 2

cc: Matt Vitale, Wisconsin Department of Natural Resources  
Garth Frable, City of Prairie du Chien  
Bob Standorf, City of Prairie du Chien Redevelopment Authority  
Chad Abram, City of Prairie du Chien Redevelopment Authority

Enclosures: Attachment A – Laboratory Report  
Attachment B – WDNR Guidance Document RR-977, Dated October 2014

I:\25221094.00\Correspondence\Other\127 S. Dousman Results\Second Event\211222\_127 S. Dousman Sample Results.docx

Attachment A  
Laboratory Report

December 16, 2021

Rob Langdon  
SCS Engineers  
2830 Dairy Dr.  
Madison, WI 53718

RE: Project: 25221094.00 Blackhawk Junction  
Pace Project No.: 10590316

Dear Rob Langdon:

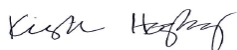
Enclosed are the analytical results for sample(s) received by the laboratory on December 07, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

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

Sincerely,



Kirsten Hogberg  
kirsten.hogberg@pacelabs.com  
(612)607-1700  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 25221094.00 Blackhawk Junction

Pace Project No.: 10590316

---

### **Pace Analytical Services, LLC - Minneapolis MN**

1700 Elm Street SE, Minneapolis, MN 55414  
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab

A2LA Certification #: 2926.01\*  
Alabama Certification #: 40770  
Alaska Contaminated Sites Certification #: 17-009\*  
Alaska DW Certification #: MN00064  
Arizona Certification #: AZ0014\*  
Arkansas DW Certification #: MN00064  
Arkansas WW Certification #: 88-0680  
California Certification #: 2929  
Colorado Certification #: MN00064  
Connecticut Certification #: PH-0256  
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137  
Florida Certification #: E87605\*  
Georgia Certification #: 959  
Hawaii Certification #: MN00064  
Idaho Certification #: MN00064  
Illinois Certification #: 200011  
Indiana Certification #: C-MN-01  
Iowa Certification #: 368  
Kansas Certification #: E-10167  
Kentucky DW Certification #: 90062  
Kentucky WW Certification #: 90062  
Louisiana DEQ Certification #: AI-03086\*  
Louisiana DW Certification #: MN00064  
Maine Certification #: MN00064\*  
Maryland Certification #: 322  
Michigan Certification #: 9909  
Minnesota Certification #: 027-053-137\*  
Minnesota Dept of Ag Approval: via MN 027-053-137  
Minnesota Petrofund Registration #: 1240\*  
Mississippi Certification #: MN00064

Missouri Certification #: 10100  
Montana Certification #: CERT0092  
Nebraska Certification #: NE-OS-18-06  
Nevada Certification #: MN00064  
New Hampshire Certification #: 2081\*  
New Jersey Certification #: MN002  
New York Certification #: 11647\*  
North Carolina DW Certification #: 27700  
North Carolina WW Certification #: 530  
North Dakota Certification #: R-036  
Ohio DW Certification #: 41244  
Ohio VAP Certification (1700) #: CL101  
Ohio VAP Certification (1800) #: CL110\*  
Oklahoma Certification #: 9507\*  
Oregon Primary Certification #: MN300001  
Oregon Secondary Certification #: MN200001\*  
Pennsylvania Certification #: 68-00563\*  
Puerto Rico Certification #: MN00064  
South Carolina Certification #:74003001  
Tennessee Certification #: TN02818  
Texas Certification #: T104704192\*  
Utah Certification #: MN00064\*  
Vermont Certification #: VT-027053137  
Virginia Certification #: 460163\*  
Washington Certification #: C486\*  
West Virginia DEP Certification #: 382  
West Virginia DW Certification #: 9952 C  
Wisconsin Certification #: 999407970  
Wyoming UST Certification #: via A2LA 2926.01  
USDA Permit #: P330-19-00208  
\*Please Note: Applicable air certifications are denoted with an asterisk (\*).

---

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 25221094.00 Blackhawk Junction

Pace Project No.: 10590316

---

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10590316001	127 S. Dousman St-IA	Air	12/03/21 10:57	12/07/21 11:50
10590316002	127 S. Dousman St-SB	Air	12/03/21 11:40	12/07/21 11:50

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 25221094.00 Blackhawk Junction  
Pace Project No.: 10590316

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10590316001	127 S. Dousman St-IA	TO-15	AJA	5	PASI-M
10590316002	127 S. Dousman St-SB	TO-15	AJA	5	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 25221094.00 Blackhawk Junction

Pace Project No.: 10590316

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>10590316001</b>	<b>127 S. Dousman St-IA</b>					
TO-15	Tetrachloroethene	23.2	ug/m3	1.0	12/15/21 15:42	
<b>10590316002</b>	<b>127 S. Dousman St-SB</b>					
TO-15	Tetrachloroethene	3940	ug/m3	33.9	12/16/21 12:13	
TO-15	Trichloroethene	6.3	ug/m3	1.8	12/15/21 17:00	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 25221094.00 Blackhawk Junction

Pace Project No.: 10590316

**Sample: 127 S. Dousman St-IA**      **Lab ID: 10590316001**      Collected: 12/03/21 10:57      Received: 12/07/21 11:50      Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
Vinyl chloride	<0.13	ug/m3	0.76	0.13	1.46		12/15/21 15:42	75-01-4	
cis-1,2-Dichloroethene	<0.28	ug/m3	1.2	0.28	1.46		12/15/21 15:42	156-59-2	
Trichloroethene	<0.29	ug/m3	1.6	0.29	1.46		12/15/21 15:42	79-01-6	
Tetrachloroethene	23.2	ug/m3	1.0	0.43	1.46		12/15/21 15:42	127-18-4	
trans-1,2-Dichloroethene	<0.25	ug/m3	1.2	0.25	1.46		12/15/21 15:42	156-60-5	

**Sample: 127 S. Dousman St-SB**      **Lab ID: 10590316002**      Collected: 12/03/21 11:40      Received: 12/07/21 11:50      Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Pace Analytical Services - Minneapolis									
cis-1,2-Dichloroethene	<0.32	ug/m3	1.3	0.32	1.64		12/15/21 17:00	156-59-2	
trans-1,2-Dichloroethene	<0.28	ug/m3	1.3	0.28	1.64		12/15/21 17:00	156-60-5	
Tetrachloroethene	3940	ug/m3	33.9	14.4	49.2		12/16/21 12:13	127-18-4	
Trichloroethene	6.3	ug/m3	1.8	0.32	1.64		12/15/21 17:00	79-01-6	
Vinyl chloride	<0.14	ug/m3	0.85	0.14	1.64		12/15/21 17:00	75-01-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 25221094.00 Blackhawk Junction

Pace Project No.: 10590316

QC Batch: 789283

Analysis Method: TO-15

QC Batch Method: TO-15

Analysis Description: TO15 MSV AIR Low Level

Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 10590316001, 10590316002

METHOD BLANK: 4200898

Matrix: Air

Associated Lab Samples: 10590316001, 10590316002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.20	0.81	12/15/21 11:14	
Tetrachloroethene	ug/m3	<0.29	0.69	12/15/21 11:14	
trans-1,2-Dichloroethene	ug/m3	<0.17	0.81	12/15/21 11:14	
Trichloroethene	ug/m3	<0.20	1.1	12/15/21 11:14	
Vinyl chloride	ug/m3	<0.087	0.52	12/15/21 11:14	

LABORATORY CONTROL SAMPLE: 4200899

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/m3	43.4	40.6	94	70-137	
Tetrachloroethene	ug/m3	73.4	70.5	96	70-130	
trans-1,2-Dichloroethene	ug/m3	43.6	42.7	98	70-130	
Trichloroethene	ug/m3	58.4	60.9	104	70-130	
Vinyl chloride	ug/m3	28	26.0	93	70-137	

SAMPLE DUPLICATE: 4202828

Parameter	Units	10590316001 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.28	<0.28		25	
Tetrachloroethene	ug/m3	23.2	23.6	2	25	
trans-1,2-Dichloroethene	ug/m3	<0.25	<0.25		25	
Trichloroethene	ug/m3	<0.29	<0.29		25	
Vinyl chloride	ug/m3	<0.13	<0.13		25	

SAMPLE DUPLICATE: 4202829

Parameter	Units	10590317001 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.29	<0.29		25	
Tetrachloroethene	ug/m3	6.0	5.5	9	25	
trans-1,2-Dichloroethene	ug/m3	<0.25	<0.25		25	
Trichloroethene	ug/m3	<0.29	<0.29		25	
Vinyl chloride	ug/m3	<0.13	<0.13		25	

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

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: 25221094.00 Blackhawk Junction

Pace Project No.: 10590316

---

### DEFINITIONS

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

ND - Not Detected at or above LOD.

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

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

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25221094.00 Blackhawk Junction  
Pace Project No.: 10590316

---

<b>Lab ID</b>	<b>Sample ID</b>	<b>QC Batch Method</b>	<b>QC Batch</b>	<b>Analytical Method</b>	<b>Analytical Batch</b>
10590316001	127 S. Dousman St-IA	TO-15	789283		
10590316002	127 S. Dousman St-SB	TO-15	789283		

### REPORT OF LABORATORY ANALYSIS

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# AIR: CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

50281

Page: 1 of 1

<b>Section A</b> Required Client Information:	<b>Section B</b> Required Project Information:	<b>Section C</b> Invoice Information:	Program
Company: <u>SCS Engineers</u>	Report To: <u>Robert Langdon SCS</u>	Attention: <u>Robert Langdon</u>	<input type="checkbox"/> UST <input type="checkbox"/> Superfund <input type="checkbox"/> Emissions <input type="checkbox"/> Clean Air Act
Address: <u>2830 Daisy Dr</u>	Copy To:	Company Name: <u>SCS</u>	<input type="checkbox"/> Voluntary Clean Up <input checked="" type="checkbox"/> Dry Clean <input type="checkbox"/> RCRA <input type="checkbox"/> Other
<u>Madison, WI</u>	Purchase Order No.:	Address: <u>2830 Daisy Dr, Madison, WI 53718</u>	Reporting Units
Email To: <u>rlangdon@scsengineers.com</u>	Project Name: <u>Blackhawk Junction</u>	Pace Quote Reference:	Location of Sampling by State: <u>WI</u>
Phone: <u>608 212 3995</u>	Project Number: <u>25221094.00</u>	Pace Project Manager/Sales Rep.: <u>Kirsten Hojberg</u>	ug/m <sup>3</sup> <input type="checkbox"/> PPBV <input checked="" type="checkbox"/> Other <input type="checkbox"/>
Requested Due Date/TAT: <u>standard</u>	Pace Profile #:		Report Level: II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/> Other <input type="checkbox"/>


ITEM #	'Section D Required Client Information <b>AIR SAMPLE ID</b> Sample IDs MUST BE UNIQUE	Valid Media Codes MEDIA CODE	COLLECTED	Canister Pressure (Initial Field - in Hg)	Canister Pressure (Final Field - in Hg)	Summa Can Number	Flow Control Number	Method:								Pace Lab ID				
								COMPOSITE START		COMPOSITE - END/GRAB		PM10	SC - Fiked Gas (%)	TO-3 BTEX	TO-3M (Methane)		TO-14	TO-15 Full List (VOCs)	TO-15 Short List BTEX	TO-15 Short List Chlorinated
								DATE	TIME	DATE	TIME									
1	615 E. Wisconsin St - IA	6645	12/21/10 05:17	12/21/10 02:25	-1	3591	1029													
2	127 S. Dousman St - IA	6640	12/21/10 12:00	12/21/10 10:57	-30	41490	2106										001			
3	201 S. Dousman St - IA	6640	12/21/10 14:02	12/21/10 13:06	-28	2092	0879													
4	615 E. Wisconsin St - SB	6645	12/21/10 09:22	12/21/10 10:00	-30	80194	0925													
5	127 S. Dousman St - SB	6645	12/21/10 11:07	12/21/10 11:40	-30	1196	2968										002			
6	201 S. Dousman St - SB	6640	12/21/10 13:20	12/21/10 13:50	-21.5	61522	6588													

Comments: Analyze for:  
PCE, TCE, cis & Trans  
1,2 DCE and vinyl chloride

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS				
Robert Langdon / SCS	12/4	1200	Matt / Pace	12/7/21	11:50	-	Y/N	Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
PRINT Name of SAMPLER: <u>Robert Langdon</u>	DATE Signed (MM/DD/YY) <u>12/14/21</u>				

WO#: 10590316



10590316

**Air Sample Condition Upon Receipt** Client Name: SCS Eng. Project #: **WO# : 10590316**

Courier:  FedEx  UPS  USPS  Client  
 Pace  Speedee  Commercial  
 Tracking Number: 975384476341, 3526, 3537  See Exception  
 Custody Seal on Cooler/Box Present?  Yes  No  
 Seals Intact?  Yes  No  
 Packing Material:  Bubble Wrap  Bubble Bags  Foam  Other: \_\_\_\_\_  
 None  Tin Can  
 Date & Initials of Person Examining Contents: 12-7-21 mZ

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		Comments:
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		1.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		2.
Sampler Name and/or Signature on COC?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	3.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		4.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		5.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		6.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		7.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		8.
(Tedlar bags not acceptable container for TO-15 or APH)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Containers Intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		10.
(visual inspection/no leaks when pressurized)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Media: <u>(Air Can)</u>   Airbag				11. Individually Certified Cans? Y   <u>N</u> (list which samples)
Is sufficient information available to reconcile samples to the COC?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		12.
Do cans need to be pressurized? (DO NOT PRESSURIZE 3C or ASTM 1946!!!)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		13.

Gauge #: <input type="checkbox"/> 10AIR26 <input type="checkbox"/> 10AIR34 <input type="checkbox"/> 10AIR35 <input type="checkbox"/> 10AIR17 <input checked="" type="checkbox"/> 10AIR47 <input type="checkbox"/> 10AIR48									
Canisters					Canisters				
Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
<u>127-IA</u>	<u>1490</u>	<u>2106</u>	<u>-2.5</u>	<u>+5</u>					
<u>11-SB</u>	<u>1196</u>	<u>2968</u>	<u>-5.5</u>	<u>+5</u>					

**CLIENT NOTIFICATION/RESOLUTION**  
 Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Field Data Required?  Yes  No  
 Comments/Resolution: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Project Manager Review: Kirsten Hogberg Date: 12/8/2021  
 Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).



Pace Analytical Services, LLC  
 1700 Elm Street, Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

### ANALYTICAL RESULTS

Client:	SCS Engineers	Lab Project Number:	10590316
Phone:	843.746.8525	Project Name:	25221094.00 Blackhawk Junction
Lab Sample No:	10590316001	ProjSampleNum:	10590316001
Client Sample ID:	127 S. Dousman St-IA	Matrix:	Air
		Date Collected:	12/03/21 10:57
		Date Received:	12/07/21 11:50

Parameters	Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.069	ppbv	0.3	1.46	12/15/21 15:42	AJA 156-59-2	
Tetrachloroethene	3.4	ppbv	0.15	1.46	12/15/21 15:42	AJA 127-18-4	
trans-1,2-Dichloroethene	<0.062	ppbv	0.3	1.46	12/15/21 15:42	AJA 156-60-5	
Trichloroethene	<0.053	ppbv	0.29	1.46	12/15/21 15:42	AJA 79-01-6	
Vinyl chloride	<0.05	ppbv	0.29	1.46	12/15/21 15:42	AJA 75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

### SUPPLEMENTAL REPORT

Units Conversion Request



Pace Analytical Services, LLC  
 1700 Elm Street, Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers Lab Project Number: 10590316  
 Phone: 843.746.8525 Project Name: 25221094.00 Blackhawk Junction  
 Lab Sample No: 10590316002 ProjSampleNum: 10590316002 Date Collected: 12/03/21 11:40  
 Client Sample ID: 127 S. Dousman St-SB Matrix: Air Date Received: 12/07/21 11:50

Parameters	Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.079	ppbv	0.32	1.64	12/15/21 17:00	AJA 156-59-2	
Tetrachloroethene	571	ppbv	4.9	49.2	12/16/21 12:13	AJA 127-18-4	
trans-1,2-Dichloroethene	<0.069	ppbv	0.32	1.64	12/15/21 17:00	AJA 156-60-5	
Trichloroethene	1.2	ppbv	0.33	1.64	12/15/21 17:00	AJA 79-01-6	
Vinyl chloride	<0.054	ppbv	0.33	1.64	12/15/21 17:00	AJA 75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**  
 Units Conversion Request





Pace Analytical Services, LLC  
1700 Elm Street, Suite 200  
Minneapolis, MN 55414  
Phone: 612.607.1700  
Fax: 612.607.6444

## ANALYTICAL RESULTS

Client: SCS Engineers  
Phone: 843.746.8525

Lab Project Number: 10590316  
Project Name: 25221094.00 Blackhawk Junction

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## PARAMETER FOOTNOTES

SUPPLEMENTAL REPORT  
Units Conversion Request

Date: 12/16/2021

Page 3



Attachment B

WDNR Guidance Document RR-977, Dated October 2014



# 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.

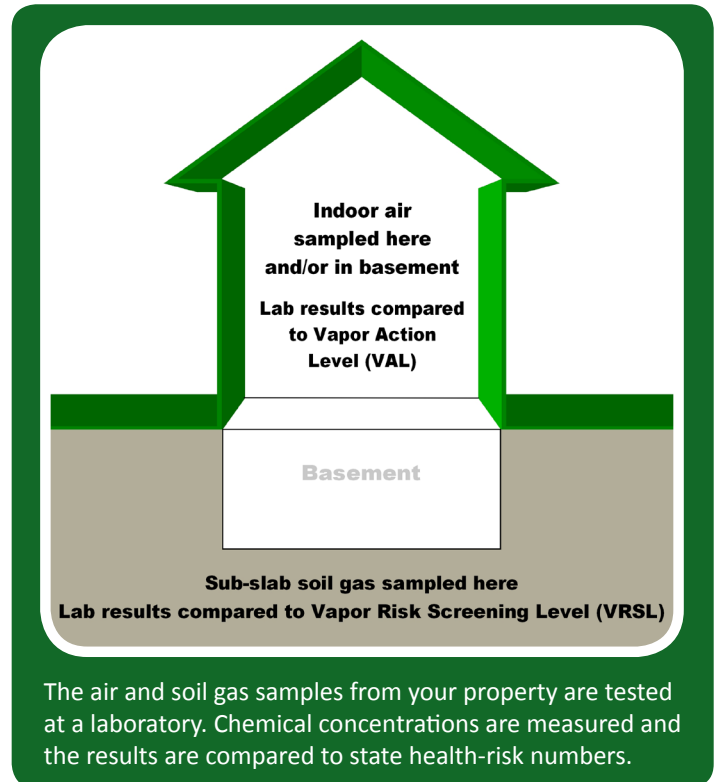
## Indoor Air Testing Results

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.



The air and soil gas samples from your property are tested at a laboratory. Chemical concentrations are measured and the results are compared to state health-risk numbers.

## 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

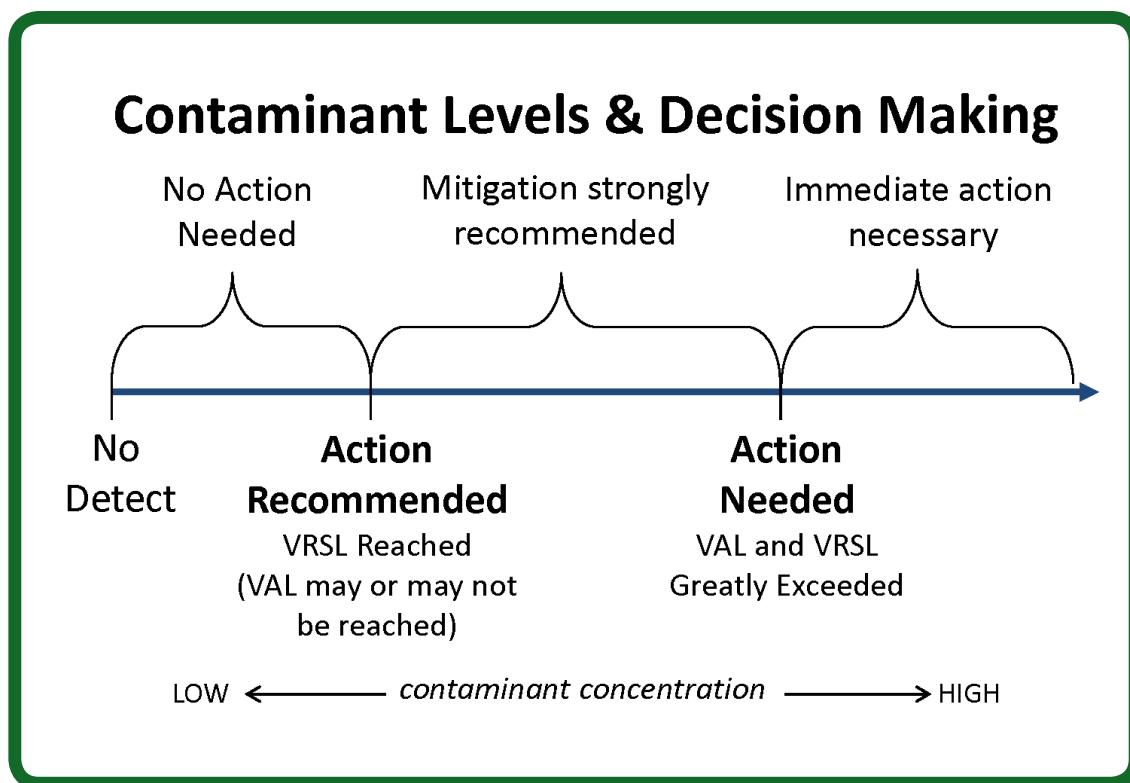
If your test results are less than a VAL for indoor air, or a VRSL for sub-slab soil gas, then the air in the house or building should not present a health concern. Follow-up sampling and testing may be necessary to confirm the results, but no other action is typically suggested.

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.



**A Note about Measurement Units:** 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  $\mu\text{g}/\text{m}^3$  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](http://dnr.wi.gov/topic/Brownfields/Vapor.html)