November 1, 2017

Phil Richard
Wisconsin Department of Natural Resources
875 South Fourth Avenue
Park Falls, WI 54552

Re: Site Status Report
Laundry Basket, Luck, WI, DNR BRRTS # 02-49-544893

Dear Phil:

This letter report summarizes the results of the most recent round of sub-slab vapor sampling conducted in Luck, Wisconsin on October 5, 2017 as part of the Laundry Basket investigation. Site work was outlined in the scope of work submitted to the DNR in a letter dated August 30, 2017. The tasks completed under this scope of work included the resampling of six off-site sub-slab locations (VP-4, VP-5, VP-6, VP-7, VP-8, and V-5) and the collection of a water sample from the sump in the Bri-Bri the Computer Guy building.

Sub-Slab Vapor Sampling

Six of the sub-slab vapor probes installed between March 13 and 15, 2017 were resampled on October 5, 2017. Ports at the Luck Public Library (VP-4), Luck Lumber (VP-5), Bri-Bri the Computer Guy building (VP-6), and Natural Alternative Food Co-Op (VP-7 and VP-8) were resampled, along with one sample port located on the sidewalk south of Luck Lumber (V-5).

Non-residential sub slab vapor risk screening levels (VRSLs) from the June 2017 EPA Regional Screening Level (RSL) tables were used to evaluate sub-slab vapor contaminant concentrations. There were no VRSL exceedances in any of the six sub-slab vapor samples collected.

Building surveys were completed at each of the off-site sampling locations and building occupants were interviewed for additional information about building construction and ventilation. Figures that illustrate the buildings are included in the building surveys. Copies of the building surveys for Luck Public Library, Luck Lumber, Bri-Bri the Computer Guy building, and the Natural Alternative Food Co-Op are included with this letter.

The scope of work included the installation of sub-slab vapor sampling locations be established at the Log Dog, New York Life, and Edina Realty/Cathi's Nails properties. A second request for access was sent to Scott Mellon (Edina Realty/Cathi's Nails) on September 7, 2017. Initial requests were sent to Pam Blegen (Log Dog) and Jason Ellingson (New York Life) on September 7, 2017 and second requests were sent on September 19, 2017. MSA did not receive a response from any of these building owners and therefore was unable to install sub-slab vapor ports at these properties.

Addresses and contact information for nearby properties are included on Figure B.1.b, including properties that have been sampled and those properties that have denied access to install and sample a sampling port.

Sump Sampling

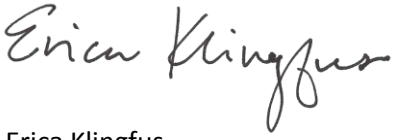
One water sample was collected from the sump (which was frozen during the previous round of vapor sampling in March 2017) in the basement of the Bri-Bri the Computer Guy building and submitted for laboratory analysis of VOCs. There were no concentrations of VOCs detected and the analytical results from the sump water sample are included with this letter.

Conclusions

The two rounds of sub-slab vapor sampling conducted at off-site properties have shown no contaminant detections exceeding the commercial VRSLs. Based on the sub-slab sampling results, there does not appear to be an off-site vapor impact to these properties and MSA is not recommending additional future vapor sampling for the project.

Sincerely,

MSA Professional Services, Inc.



Erica Klingfus
Environmental Scientist

Brian Hegge
Sr. Project Manager

Attachments:
Laboratory Reports, Vapor, Sump Water
Building Surveys (Library, Luck Lumber, Bri-Bri, Natural Alternative)
A.4 Vapor Analytical Results
B.1.a Site Location Map
B.1.b Detailed Site Map
B.4.a Vapor Intrusion Map

EAK:bjh

Cc: Lois Baldwin, 517 South Fourth Street, Luck, WI 54853
Debbie Sylvester, by email: deb@sylvesterfarms.com
David Huynh, by email: thegreenlightllc@hotmail.com

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

October 19, 2017

Brian Hegge
MSA Professional Services
1835 N Stevens St
Rhinelander, WI 54501

RE: Project: 06080801 Laundry Basket
Pace Project No.: 10406401

Dear Brian Hegge:
Enclosed are the analytical results for sample(s) received by the laboratory on October 06, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Shawn Davis
shawn.davis@pacelabs.com
612-607-6378
Project Manager

Enclosures

cc: Mark Davidson, MSA Professional Services
Curt Kleist

Pace Analytical Services, LLC
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CERTIFICATIONS

Project: 06080801 Laundry Basket
Pace Project No.: 10406401

Minnesota Certification IDs

1700 Elm Street SE, Suite 200, Minneapolis, MN 55414-2485
A2LA Certification #: 2926.01
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas Certification #: 88-0680
California Certification #: 2929
CNMI Saipan Certification #:MP0003
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Guam EPA Certification #: MN00064
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 #: 03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Massachusetts Certification #: M-MN064
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: MN00064
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 #: CL101
Oklahoma Certification #: 9507
Oregon NwTPH 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
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DW Certification #: 9952 C
West Virginia DEP Certification #: 382
Wisconsin Certification #: 999407970
Wyoming via EPA Region 8 Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 06080801 Laundry Basket
Pace Project No.: 10406401

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10406401001	**VP-4**	Air	10/05/17 16:42	10/06/17 20:00
10406401002	**VP-5**	Air	10/05/17 11:42	10/06/17 20:00
10406401003	**VP-6**	Air	10/05/17 10:46	10/06/17 20:00
10406401004	**VP-7**	Air	10/05/17 13:14	10/06/17 20:00
10406401005	**VP-8**	Air	10/05/17 14:14	10/06/17 20:00
10406401006	**V-5**	Air	10/05/17 15:46	10/06/17 20:00
10406401007	**Unused Can #2667**	Air		10/06/17 20:00
10406401008	**Unused Can #0625**	Air		10/06/17 20:00
10406401009	**Unused Can #0560**	Air		10/06/17 20:00
10406401010	**Unused Can #0596**	Air		10/06/17 20:00

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SAMPLE ANALYTE COUNT

Project: 06080801 Laundry Basket
Pace Project No.: 10406401

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10406401001	**VP-4**	TO-15	EMC	6
10406401002	**VP-5**	TO-15	EMC	6
10406401003	**VP-6**	TO-15	EMC	6
10406401004	**VP-7**	TO-15	EMC	6
10406401005	**VP-8**	TO-15	EMC	6
10406401006	**V-5**	TO-15	EMC	6

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PROJECT NARRATIVE

Project: 06080801 Laundry Basket
Pace Project No.: 10406401

Date: October 19, 2017

DUP (Lab ID: 2736718)

- A3: This result is reported from a serial dilution.

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PROJECT NARRATIVE

Project: 06080801 Laundry Basket
Pace Project No.: 10406401

Method: **TO-15**
Description: TO15 MSV AIR
Client: MSA Professional Services
Date: October 19, 2017

General Information:
6 samples were analyzed for TO-15. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 06080801 Laundry Basket
Pace Project No.: 10406401

Sample: VP-4 **Lab ID: 10406401001** Collected: 10/05/17 16:42 Received: 10/06/17 20:00 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
1,1-Dichloroethane	ND	ug/m3	1.4	0.37	1.75		10/18/17 16:56	75-34-3	
cis-1,2-Dichloroethene	ND	ug/m3	1.4	0.60	1.75		10/18/17 16:56	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.4	0.52	1.75		10/18/17 16:56	156-60-5	
Tetrachloroethene	**17.8**	ug/m3	1.2	0.50	1.75		10/18/17 16:56	127-18-4	
Trichloroethene	ND	ug/m3	0.96	0.47	1.75		10/18/17 16:56	79-01-6	
Vinyl chloride	ND	ug/m3	0.46	0.22	1.75		10/18/17 16:56	75-01-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 06080801 Laundry Basket
Pace Project No.: 10406401

Sample: VP-5 **Lab ID: 10406401002** Collected: 10/05/17 11:42 Received: 10/06/17 20:00 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
1,1-Dichloroethane	ND	ug/m3	1.4	0.37	1.75		10/18/17 17:24	75-34-3	
cis-1,2-Dichloroethene	ND	ug/m3	1.4	0.60	1.75		10/18/17 17:24	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.4	0.52	1.75		10/18/17 17:24	156-60-5	
Tetrachloroethene	**14.4**	ug/m3	1.2	0.50	1.75		10/18/17 17:24	127-18-4	
Trichloroethene	ND	ug/m3	0.96	0.47	1.75		10/18/17 17:24	79-01-6	
Vinyl chloride	ND	ug/m3	0.46	0.22	1.75		10/18/17 17:24	75-01-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 06080801 Laundry Basket
Pace Project No.: 10406401

Sample: VP-6 **Lab ID: 10406401003** Collected: 10/05/17 10:46 Received: 10/06/17 20:00 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
1,1-Dichloroethane	ND	ug/m3	1.6	0.41	1.92		10/18/17 17:52	75-34-3	
cis-1,2-Dichloroethene	ND	ug/m3	1.6	0.65	1.92		10/18/17 17:52	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.6	0.57	1.92		10/18/17 17:52	156-60-5	
Tetrachloroethene	**192**	ug/m3	1.3	0.55	1.92		10/18/17 17:52	127-18-4	
Trichloroethene	ND	ug/m3	1.1	0.51	1.92		10/18/17 17:52	79-01-6	
Vinyl chloride	ND	ug/m3	0.50	0.24	1.92		10/18/17 17:52	75-01-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 06080801 Laundry Basket
Pace Project No.: 10406401

Sample: VP-7 **Lab ID: 10406401004** Collected: 10/05/17 13:14 Received: 10/06/17 20:00 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
1,1-Dichloroethane	ND	ug/m3	1.3	0.34	1.61		10/18/17 18:19	75-34-3	
cis-1,2-Dichloroethene	ND	ug/m3	1.3	0.55	1.61		10/18/17 18:19	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	0.47	1.61		10/18/17 18:19	156-60-5	
Tetrachloroethene	**80.9**	ug/m3	1.1	0.46	1.61		10/18/17 18:19	127-18-4	
Trichloroethene	ND	ug/m3	0.89	0.43	1.61		10/18/17 18:19	79-01-6	
Vinyl chloride	ND	ug/m3	0.42	0.20	1.61		10/18/17 18:19	75-01-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 06080801 Laundry Basket
Pace Project No.: 10406401

Sample: VP-8 **Lab ID: 10406401005** Collected: 10/05/17 14:14 Received: 10/06/17 20:00 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
1,1-Dichloroethane	ND	ug/m3	1.4	0.36	1.68		10/18/17 18:47	75-34-3	
cis-1,2-Dichloroethene	ND	ug/m3	1.4	0.57	1.68		10/18/17 18:47	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.4	0.50	1.68		10/18/17 18:47	156-60-5	
Tetrachloroethene	**20.0**	ug/m3	1.2	0.48	1.68		10/18/17 18:47	127-18-4	
Trichloroethene	ND	ug/m3	0.92	0.45	1.68		10/18/17 18:47	79-01-6	
Vinyl chloride	ND	ug/m3	0.44	0.21	1.68		10/18/17 18:47	75-01-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 06080801 Laundry Basket
Pace Project No.: 10406401

Sample: V-5 **Lab ID: 10406401006** Collected: 10/05/17 15:46 Received: 10/06/17 20:00 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
1,1-Dichloroethane	ND	ug/m3	1.4	0.37	1.75		10/18/17 19:15	75-34-3	
cis-1,2-Dichloroethene	ND	ug/m3	1.4	0.60	1.75		10/18/17 19:15	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.4	0.52	1.75		10/18/17 19:15	156-60-5	
Tetrachloroethene	**50.4**	ug/m3	1.2	0.50	1.75		10/18/17 19:15	127-18-4	
Trichloroethene	ND	ug/m3	0.96	0.47	1.75		10/18/17 19:15	79-01-6	
Vinyl chloride	ND	ug/m3	0.46	0.22	1.75		10/18/17 19:15	75-01-4	

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QUALITY CONTROL DATA

Project: 06080801 Laundry Basket
Pace Project No.: 10406401

QC Batch: 503166 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 10406401001, 10406401002, 10406401003, 10406401004, 10406401005, 10406401006

METHOD BLANK: 2735055 Matrix: Air
Associated Lab Samples: 10406401001, 10406401002, 10406401003, 10406401004, 10406401005, 10406401006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1-Dichloroethane	ug/m3	ND	0.82	10/18/17 08:45	
cis-1,2-Dichloroethene	ug/m3	ND	0.81	10/18/17 08:45	
Tetrachloroethene	ug/m3	ND	0.69	10/18/17 08:45	
trans-1,2-Dichloroethene	ug/m3	ND	0.81	10/18/17 08:45	
Trichloroethene	ug/m3	ND	0.55	10/18/17 08:45	
Vinyl chloride	ug/m3	ND	0.26	10/18/17 08:45	

LABORATORY CONTROL SAMPLE: 2735056

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethane	ug/m3	41.1	46.6	113	70-130	
cis-1,2-Dichloroethene	ug/m3	40.3	37.1	92	70-133	
Tetrachloroethene	ug/m3	68.9	73.8	107	70-130	
trans-1,2-Dichloroethene	ug/m3	40.3	38.2	95	70-131	
Trichloroethene	ug/m3	54.6	61.5	113	70-130	
Vinyl chloride	ug/m3	26	30.2	116	70-130	

SAMPLE DUPLICATE: 2736718

Parameter	Units	92359204001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1-Dichloroethane	ug/m3	ND	ND		25	
cis-1,2-Dichloroethene	ug/m3	ND	ND		25	
Tetrachloroethene	ug/m3	182000	167000	9	25	
trans-1,2-Dichloroethene	ug/m3	ND	ND		25	
Trichloroethene	ug/m3	ND	ND		25	
Vinyl chloride	ug/m3	ND	ND		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: 06080801 Laundry Basket
Pace Project No.: 10406401

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 and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

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.

SAMPLE QUALIFIERS

Sample: 2736718

[1] This result is reported from a serial dilution.

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Minneapolis, MN 55414
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 06080801 Laundry Basket
Pace Project No.: 10406401

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10406401001	**VP-4**	TO-15	503166		
10406401002	**VP-5**	TO-15	503166		
10406401003	**VP-6**	TO-15	503166		
10406401004	**VP-7**	TO-15	503166		
10406401005	**VP-8**	TO-15	503166		
10406401006	**V-5**	TO-15	503166		

10406401

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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.

28487

Page: of

Section A
Required Client Information:

Company:	M&A
Address:	
Email To:	
Phone:	Fax:
Requested Due Date/TAT:	

Section B
Required Project Information:

Report To:	Erica Klingfus
Copy To:	
Purchase Order No.:	
Project Name:	Laundry Basket
Project Number:	06080801

Section C
Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager/Sales Rep.	Shawn Davis
Pace Profile #:	

Program: UST / Superfund / Emissions / Clean Air Act / Voluntary Clean Up / Dry Clean / RCRA / Other___

Location of Sampling by State: WI

Reporting Units: ug/m³___ mg/m³___ PPBV___ PPMV___ Other___

Report Level II.___ III.___ IV.___ Other___

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

Method: PM10, 3C-Fixed Gas (%), TO-3, TO-3M (Methane), TO-4 (PCBs), TO-13 (PAH), TO-14, TO-15, TO15 Short List*

ITEM #	AIR SAMPLE ID	MEDIA CODE	PID Reading (Client only)	Composite Start Date	Composite Start Time	Composite End Date	Composite End Time	Canister Pressure (Initial Field - psig)	Canister Pressure (Final Field - psig)	Summa Can Number	Flow Control Number	Method	Pace Lab ID
1	VP-4	6LC		10/5/17	1612	10/5/17	1642	28	7	33			001
2	VP-5	↓		↓	1012	↓	1042	28	3	276			002
3	VP-6	↓		↓	1004	↓	1046	29	10	585			003
4	VP-7	↓		↓	1244	↓	1314	30	8	500			004
5	VP-8	↓		↓	1344	↓	1414	29	7	34			005
6	V-5	↓		↓	1516	↓	1546	29	8	1664			006
7													
8													
9													
10													
11													
12													

Comments :

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
Eric Kruz	10/6/17	1011	KSHtoyer	10/6/17	1011	AMB	Y/N	Y/N	Y/N
			CB	10/6/17	1725		Y/N	Y/N	Y/N
CB	10/6/17	2000	PACE	10/6/17	2000	AMB	Y/N (N circled)	Y/N (N circled)	Y/N (Y circled)
							Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER: DATE Signed (MM / DD / YY)

ORIGINAL

Pace Analytical	Document Name: Air Sample Condition Upon Receipt	Document Revised: 30Aug2017 Page 1 of 1
	Document No.: F-MN-A-106-rev.12	Issuing Authority: Pace Minnesota Quality Office

Air Sample Condition Upon Receipt

Client Name: MSA professional Services

Project #: WO#: 10406401

10406401

Courier: ☐Fed Ex ☐UPS ☐Speedee ☐Client ☐Commercial ☑Pace ☐Other:_____

Tracking Number: _____

Custody Seal on Cooler/Box Present? ☐Yes ☑No **Seals Intact?** ☐Yes ☑No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐Bubble Wrap ☐Bubble Bags ☑Foam ☐None ☐Tin Can ☐Other:_____ **Temp Blank rec:** ☐Yes ☑No

Temp. (TO17 and TO13 samples only) (°C): _____ **Corrected Temp (°C):** _____ **Thermom. Used:** ☐151401163 ☐G87A9155100842

Temp should be above freezing to 6°C **Correction Factor:** _____ **Date & Initials of Person Examining Contents:** WDJ 10/9/17

Type of ice Received ☐Blue ☐Wet ☑None

Comments:

Chain of Custody Present?	☑Yes	☐No	☐N/A	1.	
Chain of Custody Filled Out?	☑Yes	☐No	☐N/A	2.	
Chain of Custody Relinquished?	☑Yes	☐No	☐N/A	3.	
Sampler Name and/or Signature on COC?	☑Yes	☐No	☐N/A	4.	
Samples Arrived within Hold Time?	☑Yes	☐No	☐N/A	5.	
Short Hold Time Analysis (<72 hr)?	☐Yes	☑No	☐N/A	6.	
Rush Turn Around Time Requested?	☐Yes	☑No	☐N/A	7.	
Sufficient Volume?	☑Yes	☐No	☐N/A	8.	
Correct Containers Used?	☑Yes	☐No	☐N/A	9.	
-Pace Containers Used?	☑Yes	☐No	☐N/A		
Containers Intact?	☑Yes	☐No	☐N/A	10.	
Media: (Air Can) Airbag Filter TDT Passive				11. Individually Certified Cans Y (N) (list which samples)	
Sample Labels Match COC?	☑Yes	☐No	☐N/A	12.	

Samples Received: FFFT

Canisters			Canisters		
Sample Number	Can ID	Flow Controller ID	Sample Number	Can ID	Flow Controller ID
VP-4		2810	11	0596	2845
VP-5		0776			
VP-6		0729			
VP-7		555			
VP-8		0685			
V-5		1180			
unmedCAN	2667	1114			
11	0625	0975			
11	0560	0715			

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

Person Contacted: Erica Klingfus (email) Date/Time: 10/9/17

Comments/Resolution: No analysis selected on COC

Project Manager Review: Shaun Jarvis **Date:** 10/9/17

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
(612)607-1700

October 20, 2017

Brian Hegge
MSA Professional Services
1835 N Stevens St
Rhinelander, WI 54501

RE: Project: 06080801 Laundry Basket
Pace Project No.: 10406333

Dear Brian Hegge:
Enclosed are the analytical results for sample(s) received by the laboratory on October 06, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Shawn Davis
shawn.davis@pacelabs.com
612-607-6378
Project Manager

Enclosures

cc: Mark Davidson, MSA Professional Services
Erica Evert, MSA Professionals
Curt Kleist

Pace Analytical Services, LLC
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CERTIFICATIONS

Project: 06080801 Laundry Basket
Pace Project No.: 10406333

Minnesota Certification IDs

1700 Elm Street SE, Suite 200, Minneapolis, MN 55414-2485
A2LA Certification #: 2926.01
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas Certification #: 88-0680
California Certification #: 2929
CNMI Saipan Certification #:MP0003
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Guam EPA Certification #: MN00064
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 #: 03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Massachusetts Certification #: M-MN064
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: MN00064
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 #: CL101
Oklahoma Certification #: 9507
Oregon NwTPH 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
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DW Certification #: 9952 C
West Virginia DEP Certification #: 382
Wisconsin Certification #: 999407970
Wyoming via EPA Region 8 Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 06080801 Laundry Basket
Pace Project No.: 10406333

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10406333001	**Bri Bri Sump**	Water	10/05/17 10:10	10/06/17 20:00

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SAMPLE ANALYTE COUNT

Project: 06080801 Laundry Basket
Pace Project No.: 10406333

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10406333001	**Bri Bri Sump**	EPA 8260B	PRD	70	PASI-M

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PROJECT NARRATIVE

Project: 06080801 Laundry Basket
Pace Project No.: 10406333

Method: **EPA 8260B**
Description: 8260B VOC
Client: MSA-WI
Date: October 20, 2017

General Information:
1 sample was analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 503189

CH: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.

- LCS (Lab ID: 2735106)
  - Acetone
  - Tetrahydrofuran
- MS (Lab ID: 2736800)
  - Acetone
  - Tetrahydrofuran
- MSD (Lab ID: 2736801)
  - Acetone
  - Tetrahydrofuran

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 503189

B: Analyte was detected in the associated method blank.

- BLANK for HBN 503189 [MSV/4186 (Lab ID: 2735105)
  - Chloromethane

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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PROJECT NARRATIVE

Project: 06080801 Laundry Basket
Pace Project No.: 10406333

Method: **EPA 8260B**
Description: 8260B VOC
Client: MSA-WI
Date: October 20, 2017

QC Batch: 503189

L1: Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.

- LCS (Lab ID: 2735106)
  - Acetone

L3: Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples.

- LCS (Lab ID: 2735106)
  - Tetrahydrofuran

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 503189

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10407062005

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 2736800)
  - Tetrahydrofuran
- MSD (Lab ID: 2736801)
  - Tetrahydrofuran

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 2736800)
  - 1,2,4-Trimethylbenzene
- MSD (Lab ID: 2736801)
  - 1,2,4-Trimethylbenzene

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 06080801 Laundry Basket
Pace Project No.: 10406333

Sample: Bri Bri Sump **Lab ID: 10406333001** Collected: 10/05/17 10:10 Received: 10/06/17 20:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B								
Acetone	**<8.8**	ug/L	20.0	8.8	1		10/18/17 13:05	67-64-1	L3
Allyl chloride	**<1.0**	ug/L	4.0	1.0	1		10/18/17 13:05	107-05-1	
Benzene	**<0.34**	ug/L	1.0	0.34	1		10/18/17 13:05	71-43-2	
Bromobenzene	**<0.16**	ug/L	1.0	0.16	1		10/18/17 13:05	108-86-1	
Bromochloromethane	**<0.38**	ug/L	1.0	0.38	1		10/18/17 13:05	74-97-5	
Bromodichloromethane	**<0.20**	ug/L	1.0	0.20	1		10/18/17 13:05	75-27-4	
Bromoform	**<1.0**	ug/L	4.0	1.0	1		10/18/17 13:05	75-25-2	
Bromomethane	**<1.5**	ug/L	4.0	1.5	1		10/18/17 13:05	74-83-9	
2-Butanone (MEK)	**<2.4**	ug/L	5.0	2.4	1		10/18/17 13:05	78-93-3	
n-Butylbenzene	**<0.13**	ug/L	1.0	0.13	1		10/18/17 13:05	104-51-8	
sec-Butylbenzene	**<0.12**	ug/L	1.0	0.12	1		10/18/17 13:05	135-98-8	
tert-Butylbenzene	**<0.15**	ug/L	1.0	0.15	1		10/18/17 13:05	98-06-6	
Carbon tetrachloride	**<0.20**	ug/L	1.0	0.20	1		10/18/17 13:05	56-23-5	
Chlorobenzene	**<0.14**	ug/L	1.0	0.14	1		10/18/17 13:05	108-90-7	
Chloroethane	**<0.44**	ug/L	1.0	0.44	1		10/18/17 13:05	75-00-3	
Chloroform	**<0.46**	ug/L	1.0	0.46	1		10/18/17 13:05	67-66-3	
Chloromethane	**2.0J**	ug/L	10.0	1.1	1		10/18/17 13:05	74-87-3	B
2-Chlorotoluene	**<0.20**	ug/L	1.0	0.20	1		10/18/17 13:05	95-49-8	
4-Chlorotoluene	**<0.13**	ug/L	1.0	0.13	1		10/18/17 13:05	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.0**	ug/L	4.0	1.0	1		10/18/17 13:05	96-12-8	
Dibromochloromethane	**<0.13**	ug/L	1.0	0.13	1		10/18/17 13:05	124-48-1	
1,2-Dibromoethane (EDB)	**<0.24**	ug/L	1.0	0.24	1		10/18/17 13:05	106-93-4	
Dibromomethane	**<0.50**	ug/L	4.0	0.50	1		10/18/17 13:05	74-95-3	
1,2-Dichlorobenzene	**<0.21**	ug/L	1.0	0.21	1		10/18/17 13:05	95-50-1	
1,3-Dichlorobenzene	**<0.16**	ug/L	1.0	0.16	1		10/18/17 13:05	541-73-1	
1,4-Dichlorobenzene	**<0.10**	ug/L	1.0	0.10	1		10/18/17 13:05	106-46-7	
Dichlorodifluoromethane	**<0.31**	ug/L	4.0	0.31	1		10/18/17 13:05	75-71-8	
1,1-Dichloroethane	**<0.14**	ug/L	1.0	0.14	1		10/18/17 13:05	75-34-3	
1,2-Dichloroethane	**<0.32**	ug/L	1.0	0.32	1		10/18/17 13:05	107-06-2	
1,1-Dichloroethene	**<0.18**	ug/L	1.0	0.18	1		10/18/17 13:05	75-35-4	
cis-1,2-Dichloroethene	**<0.20**	ug/L	1.0	0.20	1		10/18/17 13:05	156-59-2	
trans-1,2-Dichloroethene	**<0.21**	ug/L	1.0	0.21	1		10/18/17 13:05	156-60-5	
Dichlorofluoromethane	**<0.38**	ug/L	1.0	0.38	1		10/18/17 13:05	75-43-4	
1,2-Dichloropropane	**<0.62**	ug/L	4.0	0.62	1		10/18/17 13:05	78-87-5	
1,3-Dichloropropane	**<0.13**	ug/L	1.0	0.13	1		10/18/17 13:05	142-28-9	
2,2-Dichloropropane	**<0.40**	ug/L	4.0	0.40	1		10/18/17 13:05	594-20-7	
1,1-Dichloropropene	**<0.18**	ug/L	1.0	0.18	1		10/18/17 13:05	563-58-6	
cis-1,3-Dichloropropene	**<0.12**	ug/L	4.0	0.12	1		10/18/17 13:05	10061-01-5	
trans-1,3-Dichloropropene	**<0.14**	ug/L	4.0	0.14	1		10/18/17 13:05	10061-02-6	
Diethyl ether (Ethyl ether)	**<1.3**	ug/L	4.0	1.3	1		10/18/17 13:05	60-29-7	
Ethylbenzene	**<0.14**	ug/L	1.0	0.14	1		10/18/17 13:05	100-41-4	
Hexachloro-1,3-butadiene	**<0.48**	ug/L	1.0	0.48	1		10/18/17 13:05	87-68-3	
Isopropylbenzene (Cumene)	**<0.17**	ug/L	1.0	0.17	1		10/18/17 13:05	98-82-8	
p-Isopropyltoluene	**<0.14**	ug/L	1.0	0.14	1		10/18/17 13:05	99-87-6	
Methylene Chloride	**<1.2**	ug/L	4.0	1.2	1		10/18/17 13:05	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.55**	ug/L	5.0	0.55	1		10/18/17 13:05	108-10-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 06080801 Laundry Basket
Pace Project No.: 10406333

Sample: Bri Bri Sump **Lab ID: 10406333001** Collected: 10/05/17 10:10 Received: 10/06/17 20:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B								
Methyl-tert-butyl ether	**<0.40**	ug/L	1.0	0.40	1		10/18/17 13:05	1634-04-4	
Naphthalene	**<0.42**	ug/L	4.0	0.42	1		10/18/17 13:05	91-20-3	
n-Propylbenzene	**<0.15**	ug/L	1.0	0.15	1		10/18/17 13:05	103-65-1	
Styrene	**<0.14**	ug/L	1.0	0.14	1		10/18/17 13:05	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.14**	ug/L	1.0	0.14	1		10/18/17 13:05	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.19**	ug/L	1.0	0.19	1		10/18/17 13:05	79-34-5	
Tetrachloroethene	**<0.16**	ug/L	1.0	0.16	1		10/18/17 13:05	127-18-4	
Tetrahydrofuran	**<4.3**	ug/L	10.0	4.3	1		10/18/17 13:05	109-99-9	
Toluene	**<0.17**	ug/L	1.0	0.17	1		10/18/17 13:05	108-88-3	
1,2,3-Trichlorobenzene	**<0.14**	ug/L	1.0	0.14	1		10/18/17 13:05	87-61-6	
1,2,4-Trichlorobenzene	**<0.18**	ug/L	1.0	0.18	1		10/18/17 13:05	120-82-1	
1,1,1-Trichloroethane	**<0.15**	ug/L	1.0	0.15	1		10/18/17 13:05	71-55-6	
1,1,2-Trichloroethane	**<0.22**	ug/L	1.0	0.22	1		10/18/17 13:05	79-00-5	
Trichloroethene	**<0.18**	ug/L	0.40	0.18	1		10/18/17 13:05	79-01-6	
Trichlorofluoromethane	**<0.13**	ug/L	1.0	0.13	1		10/18/17 13:05	75-69-4	
1,2,3-Trichloropropane	**<0.66**	ug/L	4.0	0.66	1		10/18/17 13:05	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<0.28**	ug/L	1.0	0.28	1		10/18/17 13:05	76-13-1	
1,2,4-Trimethylbenzene	**<0.14**	ug/L	1.0	0.14	1		10/18/17 13:05	95-63-6	
1,3,5-Trimethylbenzene	**<0.18**	ug/L	1.0	0.18	1		10/18/17 13:05	108-67-8	
Vinyl chloride	**<0.096**	ug/L	0.20	0.096	1		10/18/17 13:05	75-01-4	
Xylene (Total)	**<0.24**	ug/L	3.0	0.24	1		10/18/17 13:05	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	96	%.	75-137		1		10/18/17 13:05	17060-07-0	
Toluene-d8 (S)	101	%.	75-125		1		10/18/17 13:05	2037-26-5	
4-Bromofluorobenzene (S)	100	%.	75-125		1		10/18/17 13:05	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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QUALITY CONTROL DATA

Project: 06080801 Laundry Basket
Pace Project No.: 10406333

QC Batch: 503189 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260B MSV 465 W
Associated Lab Samples: 10406333001

METHOD BLANK: 2735105 Matrix: Water
Associated Lab Samples: 10406333001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.14	1.0	10/18/17 11:59	
1,1,1-Trichloroethane	ug/L	<0.15	1.0	10/18/17 11:59	
1,1,2,2-Tetrachloroethane	ug/L	<0.19	1.0	10/18/17 11:59	
1,1,2-Trichloroethane	ug/L	<0.22	1.0	10/18/17 11:59	
1,1,2-Trichlorotrifluoroethane	ug/L	<0.28	1.0	10/18/17 11:59	
1,1-Dichloroethane	ug/L	<0.14	1.0	10/18/17 11:59	
1,1-Dichloroethene	ug/L	<0.18	1.0	10/18/17 11:59	
1,1-Dichloropropene	ug/L	<0.18	1.0	10/18/17 11:59	
1,2,3-Trichlorobenzene	ug/L	<0.14	1.0	10/18/17 11:59	
1,2,3-Trichloropropane	ug/L	<0.66	4.0	10/18/17 11:59	
1,2,4-Trichlorobenzene	ug/L	<0.18	1.0	10/18/17 11:59	
1,2,4-Trimethylbenzene	ug/L	<0.14	1.0	10/18/17 11:59	
1,2-Dibromo-3-chloropropane	ug/L	<1.0	4.0	10/18/17 11:59	
1,2-Dibromoethane (EDB)	ug/L	<0.24	1.0	10/18/17 11:59	
1,2-Dichlorobenzene	ug/L	<0.21	1.0	10/18/17 11:59	
1,2-Dichloroethane	ug/L	<0.32	1.0	10/18/17 11:59	
1,2-Dichloropropane	ug/L	<0.62	4.0	10/18/17 11:59	
1,3,5-Trimethylbenzene	ug/L	<0.18	1.0	10/18/17 11:59	
1,3-Dichlorobenzene	ug/L	<0.16	1.0	10/18/17 11:59	
1,3-Dichloropropane	ug/L	<0.13	1.0	10/18/17 11:59	
1,4-Dichlorobenzene	ug/L	<0.10	1.0	10/18/17 11:59	
2,2-Dichloropropane	ug/L	<0.40	4.0	10/18/17 11:59	
2-Butanone (MEK)	ug/L	<2.4	5.0	10/18/17 11:59	
2-Chlorotoluene	ug/L	<0.20	1.0	10/18/17 11:59	
4-Chlorotoluene	ug/L	<0.13	1.0	10/18/17 11:59	
4-Methyl-2-pentanone (MIBK)	ug/L	<0.55	5.0	10/18/17 11:59	
Acetone	ug/L	<8.8	20.0	10/18/17 11:59	
Allyl chloride	ug/L	<1.0	4.0	10/18/17 11:59	
Benzene	ug/L	<0.34	1.0	10/18/17 11:59	
Bromobenzene	ug/L	<0.16	1.0	10/18/17 11:59	
Bromochloromethane	ug/L	<0.38	1.0	10/18/17 11:59	
Bromodichloromethane	ug/L	<0.20	1.0	10/18/17 11:59	
Bromoform	ug/L	<1.0	4.0	10/18/17 11:59	
Bromomethane	ug/L	<1.5	4.0	10/18/17 11:59	
Carbon tetrachloride	ug/L	<0.20	1.0	10/18/17 11:59	
Chlorobenzene	ug/L	<0.14	1.0	10/18/17 11:59	
Chloroethane	ug/L	<0.44	1.0	10/18/17 11:59	
Chloroform	ug/L	<0.46	1.0	10/18/17 11:59	
Chloromethane	ug/L	1.9J	10.0	10/18/17 11:59	MN
cis-1,2-Dichloroethene	ug/L	<0.20	1.0	10/18/17 11:59	
cis-1,3-Dichloropropene	ug/L	<0.12	4.0	10/18/17 11:59	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 06080801 Laundry Basket
Pace Project No.: 10406333

METHOD BLANK: 2735105 Matrix: Water
Associated Lab Samples: 10406333001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromochloromethane	ug/L	<0.13	1.0	10/18/17 11:59	
Dibromomethane	ug/L	<0.50	4.0	10/18/17 11:59	
Dichlorodifluoromethane	ug/L	<0.31	4.0	10/18/17 11:59	MN
Dichlorofluoromethane	ug/L	<0.38	1.0	10/18/17 11:59	
Diethyl ether (Ethyl ether)	ug/L	<1.3	4.0	10/18/17 11:59	
Ethylbenzene	ug/L	<0.14	1.0	10/18/17 11:59	
Hexachloro-1,3-butadiene	ug/L	<0.48	1.0	10/18/17 11:59	
Isopropylbenzene (Cumene)	ug/L	<0.17	1.0	10/18/17 11:59	
Methyl-tert-butyl ether	ug/L	<0.40	1.0	10/18/17 11:59	
Methylene Chloride	ug/L	<1.2	4.0	10/18/17 11:59	
n-Butylbenzene	ug/L	<0.13	1.0	10/18/17 11:59	
n-Propylbenzene	ug/L	<0.15	1.0	10/18/17 11:59	
Naphthalene	ug/L	<0.42	4.0	10/18/17 11:59	
p-Isopropyltoluene	ug/L	<0.14	1.0	10/18/17 11:59	
sec-Butylbenzene	ug/L	<0.12	1.0	10/18/17 11:59	
Styrene	ug/L	<0.14	1.0	10/18/17 11:59	
tert-Butylbenzene	ug/L	<0.15	1.0	10/18/17 11:59	
Tetrachloroethene	ug/L	<0.16	1.0	10/18/17 11:59	
Tetrahydrofuran	ug/L	<4.3	10.0	10/18/17 11:59	
Toluene	ug/L	0.37J	1.0	10/18/17 11:59	
trans-1,2-Dichloroethene	ug/L	<0.21	1.0	10/18/17 11:59	
trans-1,3-Dichloropropene	ug/L	<0.14	4.0	10/18/17 11:59	
Trichloroethene	ug/L	<0.18	0.40	10/18/17 11:59	
Trichlorofluoromethane	ug/L	<0.13	1.0	10/18/17 11:59	
Vinyl chloride	ug/L	<0.096	0.20	10/18/17 11:59	
Xylene (Total)	ug/L	<0.24	3.0	10/18/17 11:59	
1,2-Dichloroethane-d4 (S)	%.	95	75-137	10/18/17 11:59	
4-Bromofluorobenzene (S)	%.	100	75-125	10/18/17 11:59	
Toluene-d8 (S)	%.	100	75-125	10/18/17 11:59	

LABORATORY CONTROL SAMPLE: 2735106

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	49.9	100	75-125	
1,1,1-Trichloroethane	ug/L	50	49.1	98	69-125	
1,1,2,2-Tetrachloroethane	ug/L	50	52.6	105	70-125	
1,1,2-Trichloroethane	ug/L	50	50.4	101	75-125	
1,1,2-Trichlorotrifluoroethane	ug/L	50	47.7	95	70-133	
1,1-Dichloroethane	ug/L	50	49.0	98	62-130	
1,1-Dichloroethene	ug/L	50	50.5	101	64-134	
1,1-Dichloropropene	ug/L	50	50.5	101	65-129	
1,2,3-Trichlorobenzene	ug/L	50	51.7	103	75-125	
1,2,3-Trichloropropane	ug/L	50	50.1	100	70-125	
1,2,4-Trichlorobenzene	ug/L	50	49.5	99	75-125	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 06080801 Laundry Basket
Pace Project No.: 10406333

LABORATORY CONTROL SAMPLE: 2735106

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/L	50	50.8	102	69-135	
1,2-Dibromo-3-chloropropane	ug/L	125	127	102	73-130	
1,2-Dibromoethane (EDB)	ug/L	50	53.1	106	75-125	
1,2-Dichlorobenzene	ug/L	50	52.7	105	75-125	
1,2-Dichloroethane	ug/L	50	42.3	85	64-126	
1,2-Dichloropropane	ug/L	50	46.3	93	73-125	
1,3,5-Trimethylbenzene	ug/L	50	50.2	100	71-129	
1,3-Dichlorobenzene	ug/L	50	52.9	106	75-125	
1,3-Dichloropropane	ug/L	50	54.5	109	74-125	
1,4-Dichlorobenzene	ug/L	50	52.0	104	75-125	
2,2-Dichloropropane	ug/L	50	49.4	99	59-135	
2-Butanone (MEK)	ug/L	250	227	91	57-142	
2-Chlorotoluene	ug/L	50	51.3	103	73-125	
4-Chlorotoluene	ug/L	50	53.6	107	74-128	
4-Methyl-2-pentanone (MIBK)	ug/L	250	255	102	56-142	
Acetone	ug/L	250	426	171	75-133	CH,L1
Allyl chloride	ug/L	50	46.2	92	62-139	
Benzene	ug/L	50	48.4	97	74-125	
Bromobenzene	ug/L	50	50.7	101	75-125	
Bromochloromethane	ug/L	50	50.6	101	75-125	
Bromodichloromethane	ug/L	50	51.2	102	72-125	
Bromoform	ug/L	50	47.4	95	74-125	
Bromomethane	ug/L	50	52.2	104	30-150	
Carbon tetrachloride	ug/L	50	46.2	92	67-130	
Chlorobenzene	ug/L	50	53.4	107	75-125	
Chloroethane	ug/L	50	51.5	103	63-137	
Chloroform	ug/L	50	46.7	93	68-128	
Chloromethane	ug/L	50	50.5	101	46-145	
cis-1,2-Dichloroethene	ug/L	50	51.4	103	75-125	
cis-1,3-Dichloropropene	ug/L	50	53.7	107	73-125	
Dibromochloromethane	ug/L	50	50.7	101	75-125	
Dibromomethane	ug/L	50	53.4	107	73-125	
Dichlorodifluoromethane	ug/L	50	42.1	84	36-150	
Dichlorofluoromethane	ug/L	50	50.9	102	75-125	
Diethyl ether (Ethyl ether)	ug/L	50	49.6	99	62-136	
Ethylbenzene	ug/L	50	47.8	96	73-125	
Hexachloro-1,3-butadiene	ug/L	50	49.3	99	69-141	
Isopropylbenzene (Cumene)	ug/L	50	50.9	102	75-126	
Methyl-tert-butyl ether	ug/L	50	51.3	103	70-130	
Methylene Chloride	ug/L	50	48.5	97	74-125	
n-Butylbenzene	ug/L	50	48.6	97	69-133	
n-Propylbenzene	ug/L	50	50.9	102	75-125	
Naphthalene	ug/L	50	50.2	100	66-129	
p-Isopropyltoluene	ug/L	50	51.7	103	73-127	
sec-Butylbenzene	ug/L	50	51.0	102	75-131	
Styrene	ug/L	50	51.9	104	75-128	
tert-Butylbenzene	ug/L	50	51.2	102	75-127	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 06080801 Laundry Basket
Pace Project No.: 10406333

LABORATORY CONTROL SAMPLE: 2735106

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Tetrachloroethene	ug/L	50	51.6	103	71-127	
Tetrahydrofuran	ug/L	500	987	197	75-132	CH,L3
Toluene	ug/L	50	51.1	102	75-125	
trans-1,2-Dichloroethene	ug/L	50	49.7	99	69-127	
trans-1,3-Dichloropropene	ug/L	50	51.9	104	70-128	
Trichloroethene	ug/L	50	52.7	105	70-125	
Trichlorofluoromethane	ug/L	50	42.6	85	71-125	
Vinyl chloride	ug/L	50	48.1	96	69-133	
Xylene (Total)	ug/L	150	152	102	75-125	
1,2-Dichloroethane-d4 (S)	%.			93	75-137	
4-Bromofluorobenzene (S)	%.			100	75-125	
Toluene-d8 (S)	%.			104	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2736800 2736801

Parameter	Units	10407062005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	1000	1000	1000	970	100	97	75-138	3	30	
1,1,1-Trichloroethane	ug/L	ND	1000	1000	964	946	96	95	75-145	2	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	1000	1000	1060	1070	106	107	73-150	0	30	
1,1,2-Trichloroethane	ug/L	ND	1000	1000	1070	1050	107	105	75-140	1	30	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	1000	1000	1010	946	101	95	74-150	7	30	
1,1-Dichloroethane	ug/L	ND	1000	1000	968	964	97	96	75-140	0	30	
1,1-Dichloroethene	ug/L	ND	1000	1000	999	950	100	95	73-150	5	30	
1,1-Dichloropropene	ug/L	ND	1000	1000	975	977	98	98	75-150	0	30	
1,2,3-Trichlorobenzene	ug/L	ND	1000	1000	1020	1030	102	103	57-147	1	30	
1,2,3-Trichloropropane	ug/L	ND	1000	1000	1010	1000	101	100	75-147	1	30	
1,2,4-Trichlorobenzene	ug/L	ND	1000	1000	1010	1020	101	102	59-142	1	30	
1,2,4-Trimethylbenzene	ug/L	2210	1000	1000	3930	3890	172	167	73-141	1	30	M1
1,2-Dibromo-3-chloropropane	ug/L	ND	2500	2500	2560	2570	102	103	65-136	1	30	
1,2-Dibromoethane (EDB)	ug/L	ND	1000	1000	1070	1050	107	105	75-131	2	30	
1,2-Dichlorobenzene	ug/L	ND	1000	1000	1070	1080	107	108	75-141	1	30	
1,2-Dichloroethane	ug/L	ND	1000	1000	862	848	86	85	75-125	2	30	
1,2-Dichloropropane	ug/L	ND	1000	1000	949	925	95	92	71-147	3	30	
1,3,5-Trimethylbenzene	ug/L	614	1000	1000	1870	1850	126	124	75-139	1	30	
1,3-Dichlorobenzene	ug/L	ND	1000	1000	1080	1030	108	103	75-142	4	30	
1,3-Dichloropropane	ug/L	ND	1000	1000	1100	1060	110	106	75-141	4	30	
1,4-Dichlorobenzene	ug/L	ND	1000	1000	1080	1050	108	105	75-139	3	30	
2,2-Dichloropropane	ug/L	ND	1000	1000	941	880	94	88	60-150	7	30	
2-Butanone (MEK)	ug/L	ND	5000	5000	4790	4920	96	98	68-133	3	30	
2-Chlorotoluene	ug/L	ND	1000	1000	1190	1130	119	113	75-146	6	30	
4-Chlorotoluene	ug/L	ND	1000	1000	1080	1060	108	106	75-149	1	30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5000	5000	5310	5280	106	106	67-150	1	30	
Acetone	ug/L	ND	5000	5000	7720	7920	142	146	56-150	3	30	CH

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 06080801 Laundry Basket
Pace Project No.: 10406333

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2736800 2736801

Parameter	Units	10407062005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Allyl chloride	ug/L	ND	1000	1000	829	761	83	76	66-134	9	30	
Benzene	ug/L	389	1000	1000	1380	1350	99	96	74-134	2	30	
Bromobenzene	ug/L	ND	1000	1000	1030	1020	103	102	75-138	1	30	
Bromochloromethane	ug/L	ND	1000	1000	1060	1020	106	102	75-145	4	30	
Bromodichloromethane	ug/L	ND	1000	1000	975	983	97	98	75-143	1	30	
Bromoform	ug/L	ND	1000	1000	906	868	91	87	67-125	4	30	
Bromomethane	ug/L	ND	1000	1000	999	1080	100	108	30-150	8	30	
Carbon tetrachloride	ug/L	ND	1000	1000	892	922	89	92	75-150	3	30	
Chlorobenzene	ug/L	ND	1000	1000	1070	1050	107	105	75-133	2	30	
Chloroethane	ug/L	ND	1000	1000	1120	1040	112	104	53-150	7	30	
Chloroform	ug/L	ND	1000	1000	979	910	98	91	75-134	7	30	
Chloromethane	ug/L	ND	1000	1000	1170	950	106	85	41-150	21	30	
cis-1,2-Dichloroethene	ug/L	ND	1000	1000	991	981	99	98	73-140	1	30	
cis-1,3-Dichloropropene	ug/L	ND	1000	1000	1050	1040	105	104	72-140	1	30	
Dibromochloromethane	ug/L	ND	1000	1000	1010	974	101	97	74-130	4	30	
Dibromomethane	ug/L	ND	1000	1000	1030	1050	103	105	70-141	2	30	
Dichlorodifluoromethane	ug/L	ND	1000	1000	986	909	99	91	50-150	8	30	
Dichlorofluoromethane	ug/L	ND	1000	1000	1040	983	104	98	62-150	6	30	
Diethyl ether (Ethyl ether)	ug/L	ND	1000	1000	1030	983	100	95	71-141	5	30	
Ethylbenzene	ug/L	1270	1000	1000	2430	2390	116	112	75-136	2	30	
Hexachloro-1,3-butadiene	ug/L	ND	1000	1000	968	969	97	97	47-150	0	30	
Isopropylbenzene (Cumene)	ug/L	82.1	1000	1000	1150	1100	107	102	75-138	4	30	
Methyl-tert-butyl ether	ug/L	ND	1000	1000	1020	1030	102	103	75-128	0	30	
Methylene Chloride	ug/L	ND	1000	1000	1010	986	94	92	69-150	2	30	
n-Butylbenzene	ug/L	ND	1000	1000	1200	1150	115	111	68-150	4	30	
n-Propylbenzene	ug/L	301	1000	1000	1470	1430	117	112	74-150	3	30	
Naphthalene	ug/L	435	1000	1000	1470	1470	103	103	61-138	0	30	
p-Isopropyltoluene	ug/L	ND	1000	1000	1170	1140	115	112	70-142	2	30	
sec-Butylbenzene	ug/L	ND	1000	1000	1090	1060	107	104	74-150	3	30	
Styrene	ug/L	ND	1000	1000	1070	1040	107	104	70-140	3	30	
tert-Butylbenzene	ug/L	ND	1000	1000	1050	1020	105	102	73-140	3	30	
Tetrachloroethene	ug/L	ND	1000	1000	1040	983	104	98	72-141	6	30	
Tetrahydrofuran	ug/L	ND	10000	10000	16200	17800	162	178	53-150	9	30	CH,M0
Toluene	ug/L	149	1000	1000	1170	1090	102	95	71-138	7	30	
trans-1,2-Dichloroethene	ug/L	ND	1000	1000	987	955	99	96	74-149	3	30	
trans-1,3-Dichloropropene	ug/L	ND	1000	1000	1020	998	102	100	74-138	2	30	
Trichloroethene	ug/L	ND	1000	1000	1030	1020	103	102	70-150	1	30	
Trichlorofluoromethane	ug/L	ND	1000	1000	949	879	95	88	57-150	8	30	
Vinyl chloride	ug/L	ND	1000	1000	1020	987	102	99	59-150	3	30	
Xylene (Total)	ug/L	6950	3000	3000	11100	10700	138	125	75-131	3	30	MS
1,2-Dichloroethane-d4 (S)	%.						97	95	75-137			
4-Bromofluorobenzene (S)	%.						101	100	75-125			
Toluene-d8 (S)	%.						104	102	75-125			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: 06080801 Laundry Basket
Pace Project No.: 10406333

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 and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

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.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
CH	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
MN	The reporting limit has been raised in accordance with Minnesota Statutes 4740.2100 Subpart 8. C, D. Reporting Limit Evaluation Rule.
MS	Analyte recovery in the matrix spike was outside QC limits for one or more of the constituent analytes used in the calculated result.

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 06080801 Laundry Basket
Pace Project No.: 10406333

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10406333001	**Bri Bri Sump**	EPA 8260B	503189		

Pace Analytical®
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CHAIN-OF-CUSTODY / Analytical Request Document

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

10406333

Page: of

1525068

Section A
Required Client Information:

Company: MSA	
Address:	
Email To:	
Phone:	Fax:
Requested Due Date/TAT:	

Section B
Required Project Information:

Report To:	Erica Klingfus
Copy To:	
Purchase Order No.:	
Project Name:	Laundry Basket
Project Number:	06080801

Section C
Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Shawn Davis
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER ______

Site Location STATE: WI

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test	VOCs	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	BriBri Sump	WT	G			10/5/17	1010		3										X		001
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
sampled w/ ESC bottles - VOC vial not received.	[signature]	10/6/17	1011	[signature]	10/6/17	1011	1.0	Y	N	Y
				CB	10/10/17	1725				
	CB	10/6/17	2000	[signature]	10/6/17	2000	0.1	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Erica Klingfus

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10/6/17

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical	Document Name: **Sample Condition Upon Receipt Form**	Document Revised: 30Aug2017 Page 1 of 2
	Document No.: **F-MN-L-213-rev.21**	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: Mst

Project #: WO# : 10406333

10406333

Courier: ☐Fed Ex ☐UPS ☐USPS ☐Client ☐Commercial ☑Pace ☐SpeeDee ☐Other:_____

Tracking Number: _____

Custody Seal on Cooler/Box Present? ☐Yes ☒No **Seals Intact?** ☐Yes ☒No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐Bubble Wrap ☑Bubble Bags ☐None ☐Other:_____ **Temp Blank?** ☑Yes ☐No

Thermometer Used: ☐151401163 ☑G87A9155100842 **Type of Ice:** ☑Wet ☐Blue ☐None ☐Samples on ice, cooling process has begun

Cooler Temp Read (°C): 0.3 **Cooler Temp Corrected (°C):** 0.1 **Biological Tissue Frozen?** ☐Yes ☐No ☒N/A

Temp should be above freezing to 6°C **Correction Factor:** -0.2 **Date and Initials of Person Examining Contents:** ME 10/6/17

USDA Regulated Soil (☑N/A, water sample)

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? ☐Yes ☐No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐Yes ☐No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☑Yes	☐No		1.
Chain of Custody Filled Out?	☑Yes	☐No		2.
Chain of Custody Relinquished?	☑Yes	☐No		3.
Sampler Name and/or Signature on COC?	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time?	☑Yes	☐No		5.
Short Hold Time Analysis (<72 hr)?	☐Yes	☑No		6.
Rush Turn Around Time Requested?	☐Yes	☑No		7.
Sufficient Volume?	☑Yes	☐No		8.
Correct Containers Used?	☑Yes	☐No		9.
-Pace Containers Used?	☐Yes	☑No		
Containers Intact?	☑Yes	☐No		10.
Filtered Volume Received for Dissolved Tests?	☐Yes	☐No	☑N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☑Yes	☐No		12.
All containers needing acid/base preservation have been checked? All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, <2pH, NaOH >9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin.	☐Yes ☐Yes ☑Yes	☐No ☐No ☐No	☑N/A ☑N/A ☐N/A	13. ☐HNO_3 ☐H_2SO_4 ☐NaOH Positive for Res. Chlorine? Y N Sample # Initial when completed:_____ Lot # of added preservative:_____
Headspace in VOA Vials (>6mm)?	☐Yes	☑No	☐N/A	14.
Trip Blank Present?	☐Yes	☑No	☐N/A	15.
Trip Blank Custody Seals Present?	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if purchased):				

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

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: Shauna Davis **Date:** 10/9/17

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).

Appendix D

Vapor Intrusion Building SurveyForm

Remediation Program

Doc Type: Site Inspection Information

Preparer's name: Erica Klingfus Date/Time prepared: 10/5/17

Affiliation: MSA Professional Services Phone number: 219 499 3171

Email: eklingfus@msa-ps.com

Part 1: Property owner & building occupant information

1. **Owner/Landlord information** (Check if same as occupant: ☒)

Occupant name(s): Luck Library Interviewed: ☒ Yes ☐ No

Mailing address: 301 Main St. South

City: Luck State: WI Zip code: 54853

Home phone: (715) 472 2030 Office phone:

2. **Occupant information**

Occupant name(s): Interviewed: ☐ Yes ☐ No

Mailing address:

City: State: Zip code:

Phone: Fax: Email:

Number of occupants at this location: Age range of occupants:

Part 2: Building evaluation

3. **Building use** (Check appropriate response)

☐ Residential ☐ Child/Day Care ☐ School ☐ Church ☐ Hospital ☐ Long-term care facility ☐ Correctional facility
☐ Commercial ☐ Industrial
☒ Other (specify): Library

If the property is residential, what type? (Check appropriate response)

☐ Ranch rambler ☐ Raised rambler ☐ Townhouses/Condos ☐ Duplex ☐ Modular ☐ 2-Family
☐ Split level ☐ Contemporary ☐ Apartment house ☐ Cape cod ☐ Log home ☐ 3-Family
☐ Colonial ☐ Mobile home ☐ Other (specify):

4. **Building description**

If the property is commercial or industrial, describe the business use(s):

Public library

Indicate the number of floors and general use of each floor of the building beginning with lowest level:

1 floor - library, storage, office

If there are multiple residential units, indicate how many units: N/A When was building constructed:

Type of insulation used in building: Elevators or lifts: ☐ Yes ☒ No

Basement/Lowest level depth below grade: N/A (feet)

Observed basement characteristics (Check all that apply)

Is basement/lowest level occupied:	☐ Full time	☐ Occasionally	☐ Almost never N/A	
Bedrooms in the basement/lowest level:	☐ Yes ☒ No	If yes, are the bedrooms occupied regularly: ☐ Yes ☐ No		
Basement type:	☐ Full	☐ Partial	☐ Slab	☐ Other:
Floor materials:	☐ Concrete	☐ Dirt	☐ Stone	☐ Other:
Floor covering:	☐ Uncovered	☐ Covered	☐ Covered with:	
Concrete floor:	☐ Unsealed	☐ Sealed	☐ Sealed with:	
Foundation walls:	☐ Poured	☐ Block	☐ Stone	☐ Other:
Basement finished:	☐ Unfinished	☐ Finished	☐ Partially finished	
Basement wetness:	☐ Wet	☐ Damp	☐ Seldom	☐ Moldy
Sump pump present:	☐ Yes ☐ No	If yes, was water present: ☐ Yes ☐ No		
Are there any crawl spaces present:	☐ Yes ☐ No	If yes, describe the crawl space floor conditions (earth, concrete, etc.) and construction (walls, use, connectivity to building, etc.) and illustrate location on the attached grid plans:		
Have there been any building additions	☐ Yes ☐ No	Describe addition construction including how it ties to the existing floor plan (footings, slab connectivity, etc.) illustrate locations of additions on the attached grid plans:		

Thickness of the concrete floor slab in the lowest level(s): _____ Inches.

Soil type present beneath the building: _____

Is there evidence of saturated or high moisture conditions beneath the floor slab? ☐ Yes ☐ No

If yes, explain:

_____

_____

_____

_____

Indicate sources of water supply sources (i.e., drinking, irrigation, etc.) and type of sewage disposal
(Check all that apply)

Water supply:	☒ Public water	☐ Drilled well	☐ Driven well	☐ Dug well
Sewage disposal:	☒ Public sewer	☐ Septic tank	☐ Leach field	☐ Dry well

5. Heating, venting, air conditioning, or other building controls (Check all that apply)

Type of heating system(s) used in this building (Check all that apply)

☒ Hot air circulation	☐ Space heaters	☐ Electric baseboard	☐ In-floor heating	☐ Heat pump
☐ Steam radiation	☐ Wood stove	☐ Hot water baseboard	☐ Radiant floor	☐ Outdoor wood boiler

☐ Other (specify): _____ **Primary type:** _____

Primary type of fuel used (Check appropriate response)

☒ Natural gas ☐ Fuel oil ☐ Kerosene ☐ Electric ☐ Propane

☐ Solar ☐ Wood ☐ Coal

If hot water tank present, indicate fuel source: _____

Boiler/furnace is located in: ☐ Basement ☐ Outdoors ☒ Main floor ☐ Other: _____

Type of air conditioning: ☒ Central air ☐ Window units ☐ Open windows ☐ No mechanical system

Is outside replacement (make-up) air provided for combustion appliances? ☐ Yes ☐ No

If no, explain:

Are there air distribution ducts present? ☒ Yes ☐ No

Describe the supply and cold air return ductwork and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram:

New

Describe the type of mechanical ventilation systems used within or for the building (e.g., air-to-air exchangers, HVAC, etc.). Indicate whether the interior spaces of the building use separate ventilation systems and/or controls. Provide information on any existing building mitigation system (e.g., radon mitigation, passive venting systems, etc.). If available, provide information on air exchange rates for any existing mechanical ventilation systems currently in use.

6. Summary of potential building vapor intrusion entry points

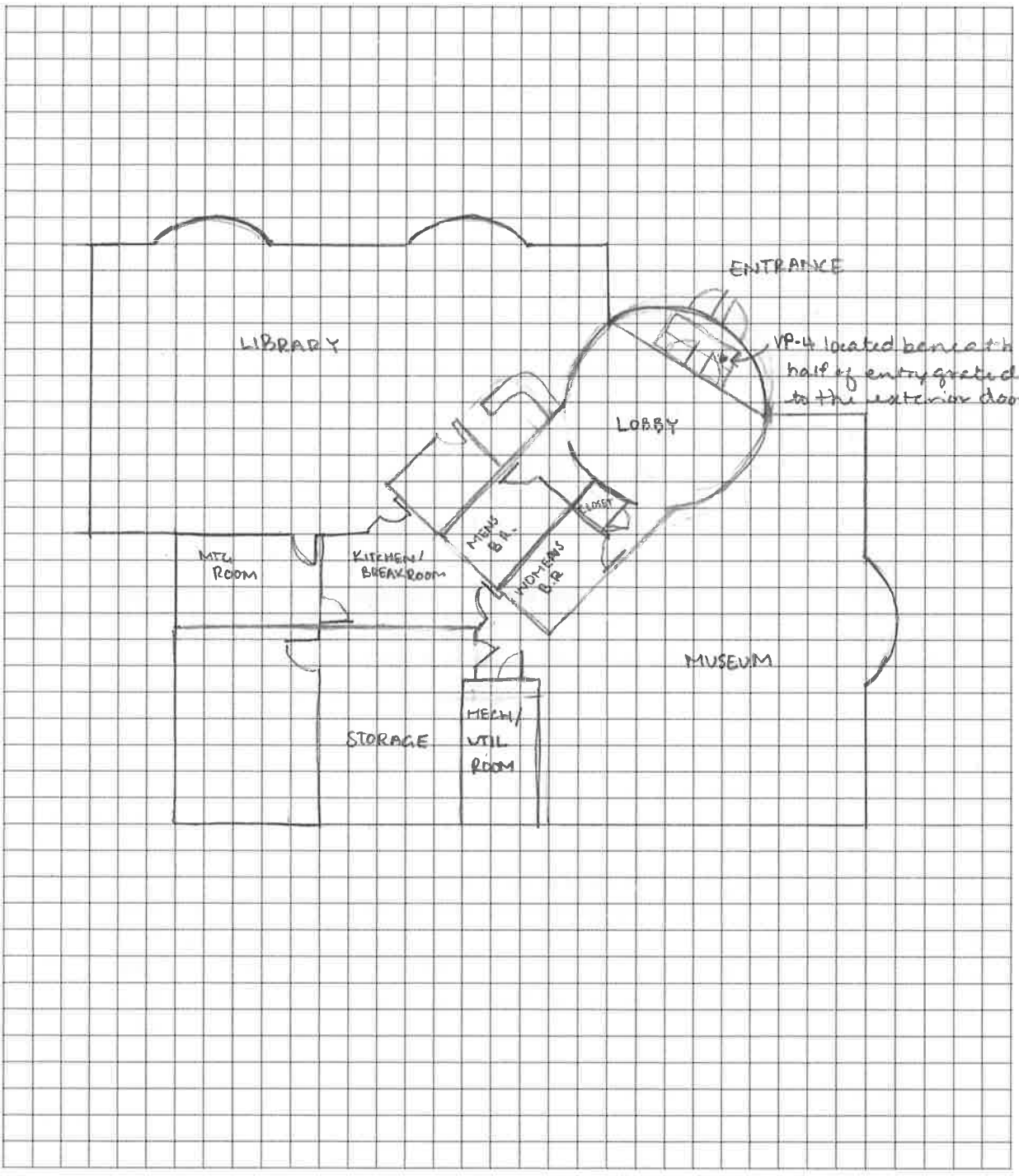
Earthen floors or incompetent floor slabs in the lowest level of building	☐ Yes ☒ No
Sumps (unsealed)	☐ Yes ☒ No
Large utility penetrations through floor and/or walls with exposure to sub-surface soils	☐ Yes ☒ No
Crawl spaces with earthen floors or incompetent floor conditions	☐ Yes ☒ No
Other (describe)	☐ Yes ☒ No

7. Is the use of the vapor intrusion attenuation factor (33X ISV screening level) valid for this building based on the above building conditions? ☐ Yes ☐ No

8. Grid plans

Use grid plans to describe floor plans, locate potential soil vapor entry points (e.g., cracks, utility ports, drains); and if applicable, identify sample locations (sub-slab, indoor air, outdoor air sampling).

Floor plan for basement or lowest level at property address: _____



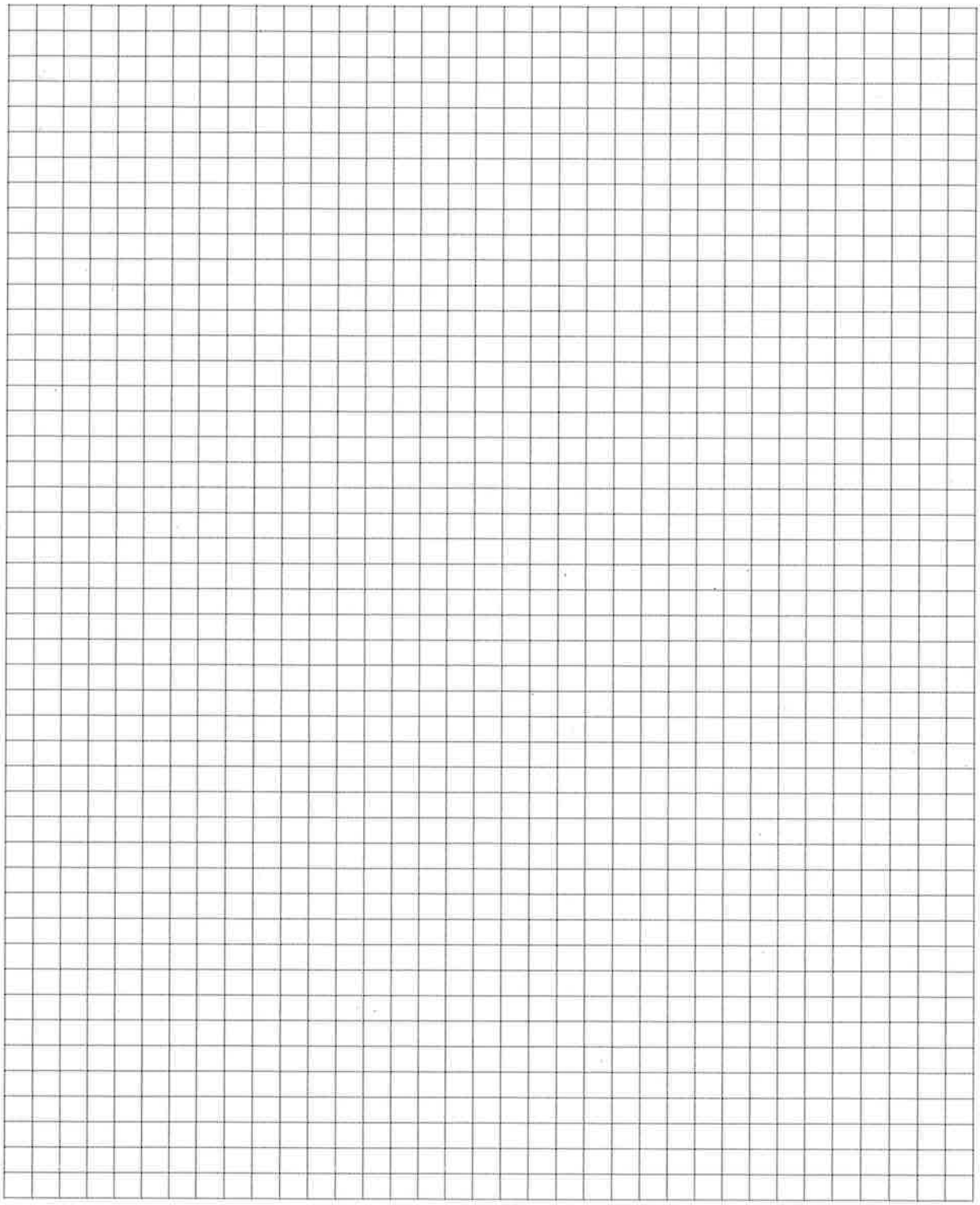
Scale: _____ **North (indicate direction):** _____

Floor above lowest level at property address: _____

Scale: _____ **North (indicate direction):** _____

Outdoor grid plot (Include if outdoor ambient air samples collected):

Insert sketch (or attach separate document) of the area outside the building and locate outdoor air sample locations. If applicable, provide information on spill locations, potential air contamination sources, locations of wells, septic system, etc., and PID meter readings. Indicate wind direction and speed during sampling.



Part 3: Indoor Air Quality Survey

Complete if indoor air sampling is conducted (use grids in Part 1 for labeling sampling locations).

Factors that may influence indoor air quality:

Is there an attached garage:	☐ Yes ☒ No		
Are petroleum-powered machines or vehicles stored in the garage (e.g., lawn mower, ATV, car):	☐ Yes ☒ No	Please specify:	
Has the building ever had a fire:	☐ Yes ☒ No	When:	
Is a kerosene or unvented gas space heater present:	☐ Yes ☒ No	Where & type:	
Is there smoking in the building:	☐ Yes ☒ No	How frequently:	
Have cleaning products been used recently:	☐ Yes ☒ No	When & type:	
Have cosmetic products been used recently:	☐ Yes ☒ No	When & type:	
Has painting/staining been done in the last 6 months:	☐ Yes ☒ No	Where & when:	
Has any remodeling or construction occurred in the last 6 months:	☐ Yes ☒ No	Where & when:	
Is there new carpet, drapes, or other textiles:	☐ Yes ☒ No	Where & when:	
Have air fresheners been used recently:	☐ Yes ☒ No	When & type:	

Is there a clothes dryer: ☐ Yes ☒ No If yes, is it vented outside: _____

Are there odors in the building: ☐ Yes ☒ No If yes, please describe: _____

Do any of the building occupants use solvents at work: ☐ Yes ☐ No

If yes, what types of solvents are used: _____

Do any of the building occupants regularly use or work at a dry-cleaning service: ☐ Yes ☐ No

If yes, indicate approximately how frequent: _____

Product inventory form (Add additional rows if needed)

Make and model of field instrument used: _____

List specific products identified in the building that have the potential to affect indoor air quality (add or delete rows as needed):

Location	Product description*	Comments	Instrument readings if taken and units

* Describe the condition of the product containers as Unopened (UO), Used (U), or Deteriorated (D). Include photographs of product containers as appropriate to document products and ingredients.

Appendix D

Location	Product description*	Comments	Instrument readings if taken and units

* Describe the condition of the product containers as Unopened (UO), Used (U), or Deteriorated (D).
Include photographs of product containers as appropriate to document products and ingredients.

Appendix D

Vapor Intrusion Building SurveyForm

Remediation Program

Doc Type: Site Inspection Information

Preparer's name: Erica Klingfus Date/Time prepared: 10/5/17

Affiliation: MSA Phone number: (218) 499-3171

Email: eklingfus@msa-ps.com

Part 1: Property owner & building occupant information

1. **Owner/Landlord information** (Check if same as occupant: ☒) Manager - Marie Clark

Occupant name(s): Natural Alternative Food Coop Interviewed: ☒ Yes ☐ No

Mailing address: 241 S. Main St

City: Luck State: WI Zip code: 54853

Home phone: Office phone: (715) 472-8084

2. **Occupant information**

Occupant name(s): Interviewed: ☐ Yes ☐ No

Mailing address:

City: State: Zip code:

Phone: Fax: Email:

Number of occupants at this location: Age range of occupants:

Part 2: Building evaluation

3. **Building use** (Check appropriate response)

☐ Residential ☐ Child/Day Care ☐ School ☐ Church ☐ Hospital ☐ Long-term care facility ☐ Correctional facility
☒ Commercial ☐ Industrial
☐ Other (specify):

If the property is residential, what type? (Check appropriate response)

☐ Ranch rambler ☐ Raised rambler ☐ Townhouses/Condos ☐ Duplex ☐ Modular ☐ 2-Family
☐ Split level ☐ Contemporary ☐ Apartment house ☐ Cape cod ☐ Log home ☐ 3-Family
☐ Colonial ☐ Mobile home ☐ Other (specify):

4. **Building description**

If the property is commercial or industrial, describe the business use(s):

basement -
main - storefront, storage, offices
2nd - currently renovating into office/art studio space (not residential)

Indicate the number of floors and general use of each floor of the building beginning with lowest level:

Natural foods coop

If there are multiple residential units, indicate how many units: N/A When was building constructed:

Type of insulation used in building: Elevators or lifts: ☐ Yes ☒ No

Basement/Lowest level depth below grade: 6' (feet)

Observed basement characteristics (Check all that apply)

Is basement/lowest level occupied:	☐ Full time	☐ Occasionally	☒ Almost never	
Bedrooms in the basement/lowest level:	☐ Yes ☒ No	If yes, are the bedrooms occupied regularly: ☐ Yes ☐ No		
Basement type:	☐ Full	☒ Partial	☐ Slab	☐ Other:
Floor materials:	☒ Concrete	☐ Dirt	☐ Stone	☐ Other:
Floor covering:	☒ Uncovered	☐ Covered	☐ Covered with:	
Concrete floor:	☒ Unsealed	☐ Sealed	☐ Sealed with:	
Foundation walls:	☐ Poured	☒ Block	☐ Stone	☐ Other:
Basement finished:	☒ Unfinished	☐ Finished	☐ Partially finished	
Basement wetness:	☐ Wet	☒ Damp	☐ Seldom	☐ Moldy
Sump pump present:	☐ Yes ☒ No	If yes, was water present: ☐ Yes ☐ No		
Are there any crawl spaces present:	☐ Yes ☒ No	If yes, describe the crawl space floor conditions (earth, concrete, etc.) and construction (walls, use, connectivity to building, etc.) and illustrate location on the attached grid plans:		
Have there been any building additions	☒ Yes ☐ No	Describe addition construction including how it ties to the existing floor plan (footings, slab connectivity, etc.) illustrate locations of additions on the attached grid plans:		

Thickness of the concrete floor slab in the lowest level(s): _____ Inches.

Soil type present beneath the building: _____

Is there evidence of saturated or high moisture conditions beneath the floor slab? ☒ Yes ☐ No

If yes, explain:

when attempting to install subslab port @ basement level in March, groundwater was visible in the hole drilled thru the slab.

Indicate sources of water supply sources (i.e., drinking, irrigation, etc.) and type of sewage disposal (Check all that apply)

Water supply:	☒ Public water	☐ Drilled well	☐ Driven well	☐ Dug well	
Sewage disposal:	☒ Public sewer	☐ Septic tank	☐ Leach field	☐ Dry well	

5. Heating, venting, air conditioning, or other building controls (Check all that apply)

Type of heating system(s) used in this building (Check all that apply)

☒ Hot air circulation	☐ Space heaters	☐ Electric baseboard	☐ In-floor heating	☐ Heat pump
☐ Steam radiation	☐ Wood stove	☐ Hot water baseboard	☐ Radiant floor	☐ Outdoor wood boiler

☐ Other (specify): _____ **Primary type:** _____

Primary type of fuel used (Check appropriate response)

☒ Natural gas ☐ Fuel oil ☐ Kerosene ☐ Electric ☐ Propane
☐ Solar ☐ Wood ☐ Coal

If hot water tank present, indicate fuel source: _____

Boiler/furnace is located in: ☐ Basement ☐ Outdoors ☒ Main floor ☐ Other: _____

Type of air conditioning: ☐ Central air ☐ Window units ☐ Open windows ☐ No mechanical system

Is outside replacement (make-up) air provided for combustion appliances? ☐ Yes ☐ No

If no, explain:

Are there air distribution ducts present? ☒ Yes ☐ No

Describe the supply and cold air return ductwork and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram:

ductwork looks new + in good condition.

Describe the type of mechanical ventilation systems used within or for the building (e.g., air-to-air exchangers, HVAC, etc.). Indicate whether the interior spaces of the building use separate ventilation systems and/or controls. Provide information on any existing building mitigation system (e.g., radon mitigation, passive venting systems, etc.). If available, provide information on air exchange rates for any existing mechanical ventilation systems currently in use.

6. Summary of potential building vapor intrusion entry points

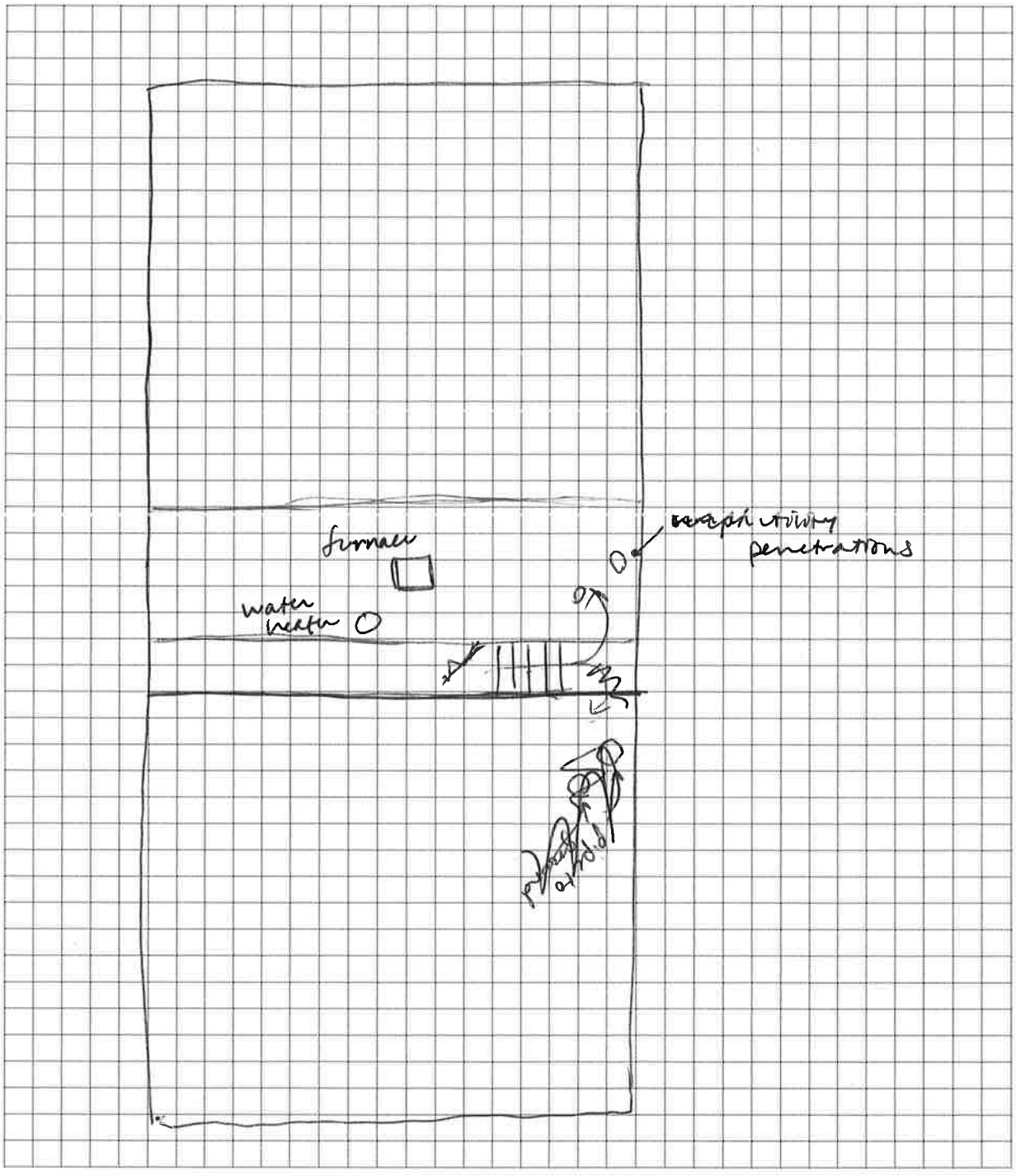
Earthen floors or incompetent floor slabs in the lowest level of building	☐ Yes	☒ No
Sumps (unsealed)	☐ Yes	☒ No
Large utility penetrations through floor and/or walls with exposure to sub-surface soils	☐ Yes	☒ No
Crawl spaces with earthen floors or incompetent floor conditions	☐ Yes	☒ No
Other (describe)	☐ Yes	☐ No

7. Is the use of the vapor intrusion attenuation factor (33X ISV screening level) valid for this building based on the above building conditions? ☐ Yes ☐ No

8. Grid plans

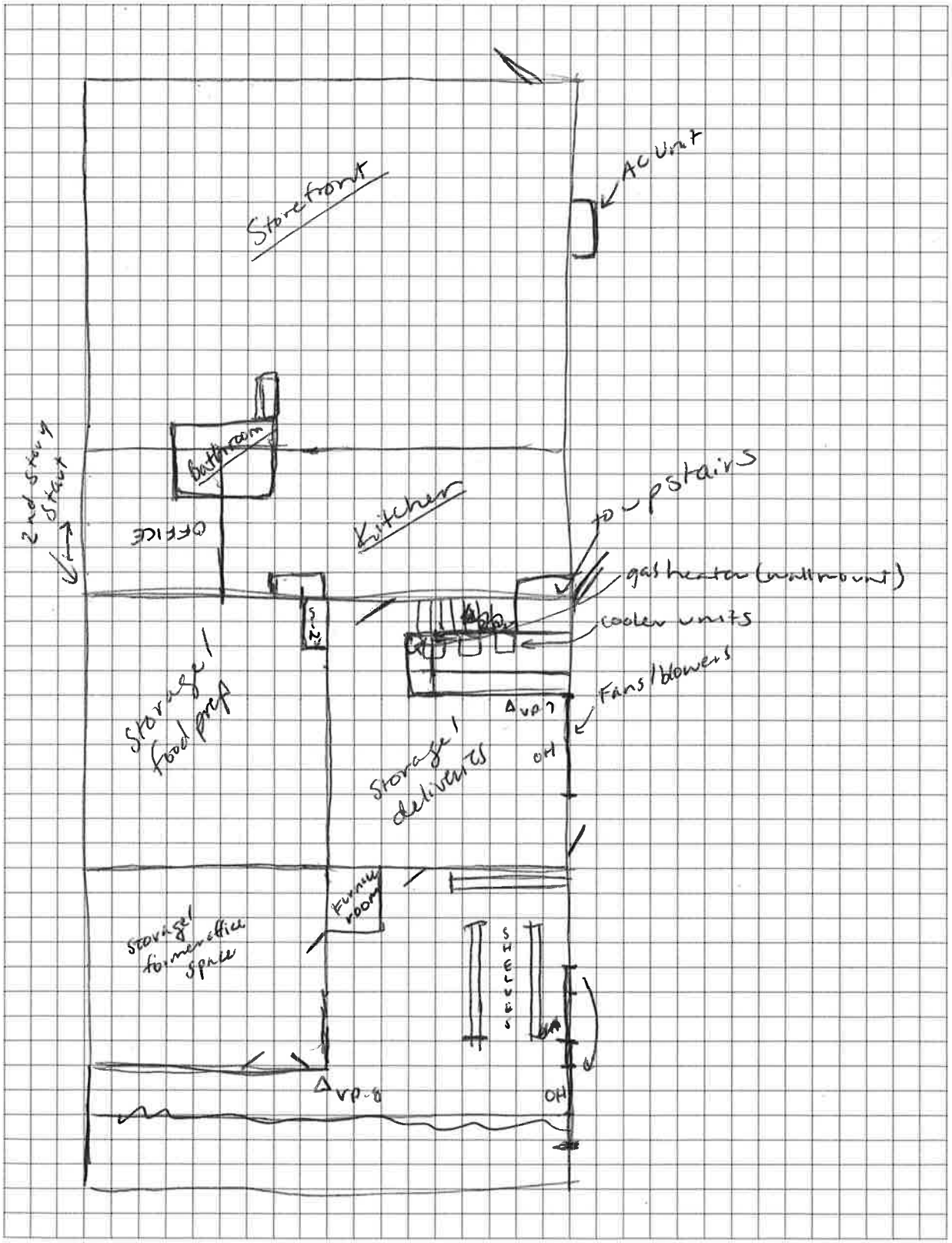
Use grid plans to describe floor plans, locate potential soil vapor entry points (e.g., cracks, utility ports, drains); and if applicable, identify sample locations (sub-slab, indoor air, outdoor air sampling).

Floor plan for basement or lowest level at property address: _____



Scale: _____ **North (indicate direction):** _____

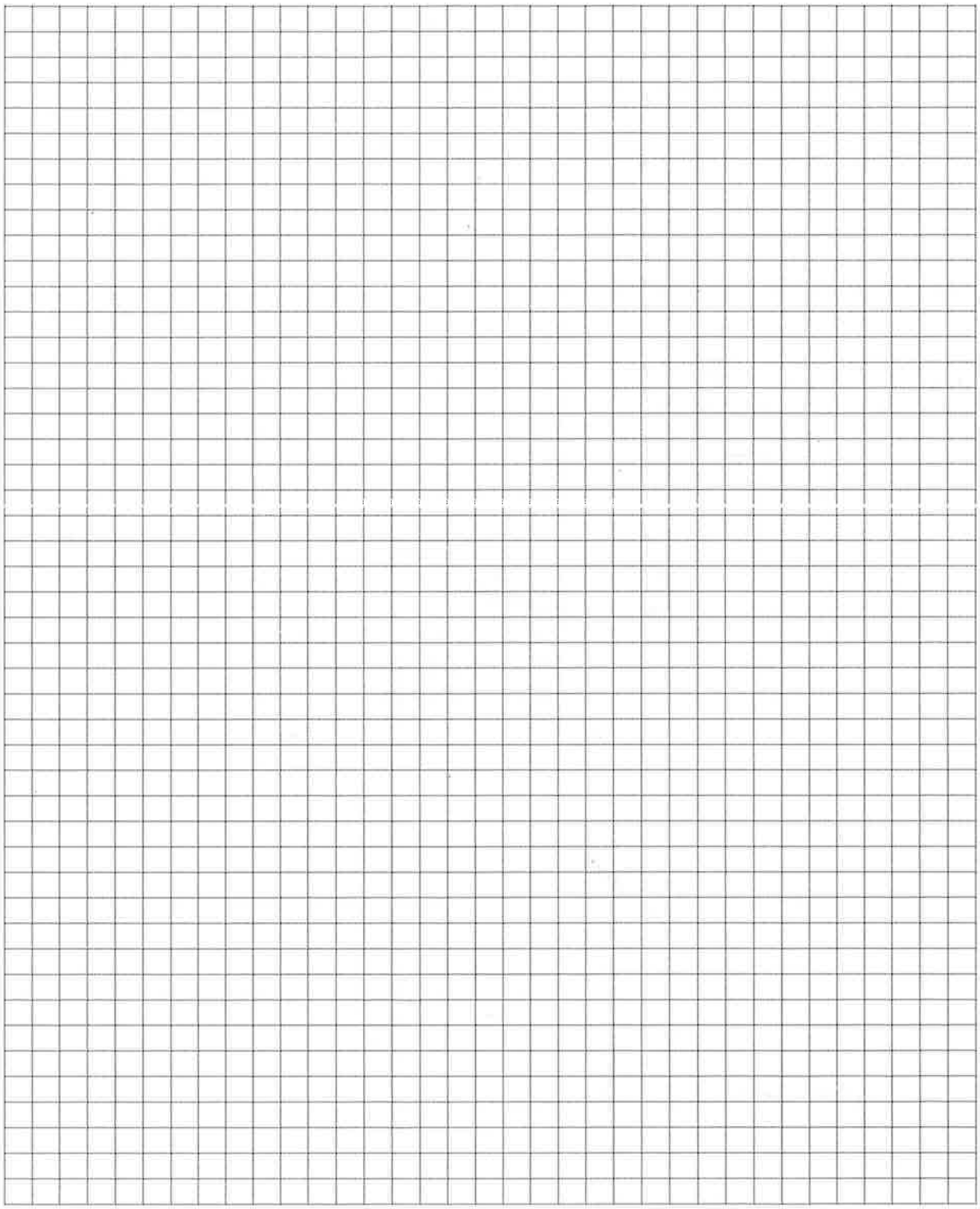
Floor above lowest level at property address: _____



Scale: 2.5' = □ **North (indicate direction):** ←

Outdoor grid plot (Include if outdoor ambient air samples collected):

Insert sketch (or attach separate document) of the area outside the building and locate outdoor air sample locations. If applicable, provide information on spill locations, potential air contamination sources, locations of wells, septic system, etc., and PID meter readings. Indicate wind direction and speed during sampling.



Part 3: Indoor Air Quality Survey

Complete if indoor air sampling is conducted (use grids in Part 1 for labeling sampling locations).

Factors that may influence indoor air quality:

Is there an attached garage:	☒ Yes ☐ No		
Are petroleum-powered machines or vehicles stored in the garage (e.g., lawn mower, ATV, car):	☐ Yes ☒ No	Please specify:	storage w/ OH doors
Has the building ever had a fire:	☐ Yes ☒ No	When:	
Is a kerosene or unvented gas space heater present:	☐ Yes ☒ No	Where & type:	
Is there smoking in the building:	☐ Yes ☒ No	How frequently:	
Have cleaning products been used recently:	☐ Yes ☒ No	When & type:	
Have cosmetic products been used recently:	☐ Yes ☒ No	When & type:	
Has painting/staining been done in the last 6 months:	☐ Yes ☒ No	Where & when:	
Has any remodeling or construction occurred in the last 6 months:	☐ Yes ☒ No	Where & when:	
Is there new carpet, drapes, or other textiles:	☐ Yes ☒ No	Where & when:	
Have air fresheners been used recently:	☐ Yes ☒ No	When & type:	

Is there a clothes dryer: ☐ Yes ☐ No If yes, is it vented outside: _____

Are there odors in the building: ☒ Yes ☐ No If yes, please describe: food / perfume / oils in storefront.

Do any of the building occupants use solvents at work: ☐ Yes ☒ No

If yes, what types of solvents are used: _____

Do any of the building occupants regularly use or work at a dry-cleaning service: ☐ Yes ☒ No

If yes, indicate approximately how frequent: _____

Product inventory form (Add additional rows if needed)

Make and model of field instrument used: _____

List specific products identified in the building that have the potential to affect indoor air quality (add or delete rows as needed):

Location	Product description*	Comments	Instrument readings if taken and units

* Describe the condition of the product containers as Unopened (UO), Used (U), or Deteriorated (D). Include photographs of product containers as appropriate to document products and ingredients.

Location	Product description*	Comments	Instrument readings if taken and units

* Describe the condition of the product containers as Unopened (UO), Used (U), or Deteriorated (D).
Include photographs of product containers as appropriate to document products and ingredients.

Appendix D

Vapor Intrusion Building SurveyForm

Remediation Program

Doc Type: Site Inspection Information

Preparer's name: Erica Klingfus Date/Time prepared: 10/5/17

Affiliation: MSA Phone number: (218) 499-3171

Email: eklingfus@msa-ps.com

Part 1: Property owner & building occupant information

1. Owner/Landlord information (Check if same as occupant: ☒)

Occupant name(s): BriBri Interviewed: ☒ Yes ☐ No

Mailing address: 304 main st. north

City: Luck State: WI Zip code: 54853

Home phone: Office phone:

2. Occupant information

Occupant name(s): Interviewed: ☐ Yes ☐ No

Mailing address:

City: State: Zip code:

Phone: Fax: Email:

Number of occupants at this location: Age range of occupants:

Part 2: Building evaluation

3. Building use (Check appropriate response)

☐ Residential ☐ Child/Day Care ☐ School ☐ Church ☐ Hospital ☐ Long-term care facility ☐ Correctional facility
☒ Commercial ☐ Industrial
☐ Other (specify):

If the property is residential, what type? (Check appropriate response)

☐ Ranch rambler ☐ Raised rambler ☐ Townhouses/Condos ☐ Duplex ☐ Modular ☐ 2-Family
☐ Split level ☐ Contemporary ☐ Apartment house ☐ Cape cod ☐ Log home ☐ 3-Family
☐ Colonial ☐ Mobile home ☐ Other (specify):

4. Building description

If the property is commercial or industrial, describe the business use(s):

Former theater, computer repair / sales shop. Now used for storage. (currently for rent)

Indicate the number of floors and general use of each floor of the building beginning with lowest level:

basement - sump, former furnace
1st - storage, former theater area
2nd - storage

If there are multiple residential units, indicate how many units: N/A When was building constructed:

Type of insulation used in building: Elevators or lifts: ☐ Yes ☒ No

Basement/Lowest level depth below grade: ~5' (feet)

Observed basement characteristics (Check all that apply)

Is basement/lowest level occupied:	☐ Full time	☐ Occasionally	☒ Almost never	
Bedrooms in the basement/lowest level:	☐ Yes ☒ No	If yes, are the bedrooms occupied regularly: ☐ Yes ☐ No		
Basement type:	☐ Full	☒ Partial	☐ Slab	☐ Other:
Floor materials:	☒ Concrete	☐ Dirt	☐ Stone	☐ Other:
Floor covering:	☒ Uncovered	☐ Covered	☐ Covered with:	
Concrete floor:	☒ Unsealed	☐ Sealed	☐ Sealed with:	
Foundation walls:	☐ Poured	☒ Block	☐ Stone	☐ Other:
Basement finished:	☒ Unfinished	☐ Finished	☐ Partially finished	
Basement wetness:	☒ Wet	☐ Damp	☐ Seldom	☐ Moldy
Sump pump present:	☐ Yes ☒ No	If yes, was water present: ☐ Yes ☐ No		
Are there any crawl spaces present:	☐ Yes ☒ No	If yes, describe the crawl space floor conditions (earth, concrete, etc.) and construction (walls, use, connectivity to building, etc.) and illustrate location on the attached grid plans:		
Have there been any building additions	☐ Yes ☒ No	Describe addition construction including how it ties to the existing floor plan (footings, slab connectivity, etc.) illustrate locations of additions on the attached grid plans:		

Thickness of the concrete floor slab in the lowest level(s): _____ Inches.

Soil type present beneath the building: _____

Is there evidence of saturated or high moisture conditions beneath the floor slab? ☒ Yes ☐ No

If yes, explain:

basement v. wet, sump full to floor. Moisture / wetness on floor.

Indicate sources of water supply sources (i.e., drinking, irrigation, etc.) and type of sewage disposal (Check all that apply)

Water supply:	☒ Public water	☐ Drilled well	☐ Driven well	☐ Dug well
Sewage disposal:	☒ Public sewer	☐ Septic tank	☐ Leach field	☐ Dry well

5. Heating, venting, air conditioning, or other building controls (Check all that apply)

Type of heating system(s) used in this building (Check all that apply) BUILDING NOT CURRENTLY HEATED

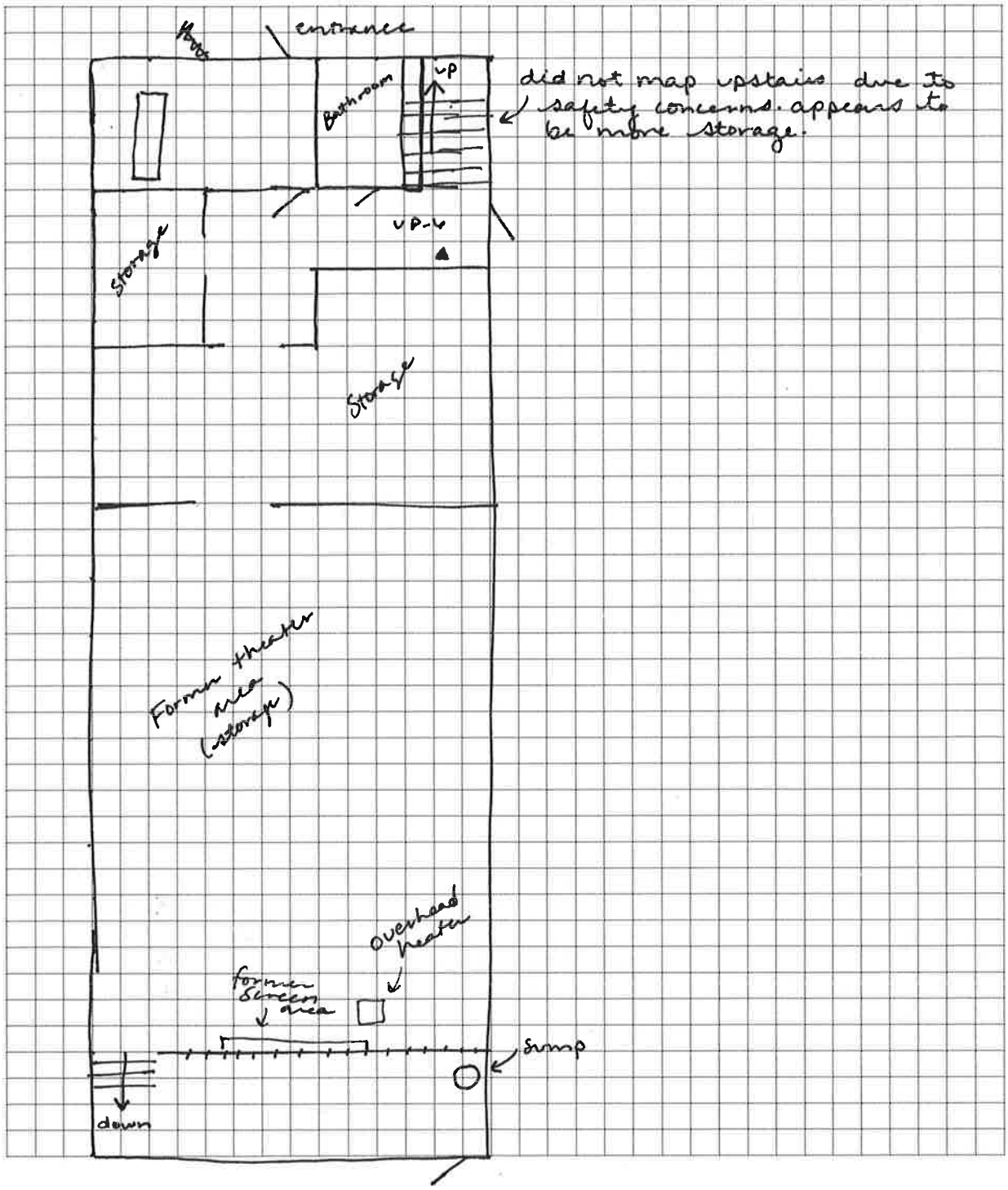
☐ Hot air circulation	☐ Space heaters	☐ Electric baseboard	☐ In-floor heating	☐ Heat pump
☐ Steam radiation	☐ Wood stove	☐ Hot water baseboard	☐ Radiant floor	☐ Outdoor wood boiler

☐ Other (specify): _____ **Primary type:** _____

8. Grid plans

Use grid plans to describe floor plans, locate potential soil vapor entry points (e.g., cracks, utility ports, drains); and if applicable, identify sample locations (sub-slab, indoor air, outdoor air sampling).

Floor plan for basement or lowest level at property address: _____



Scale: 1 = 2.5 **North (indicate direction):** →

building not currently heated. formerly gas.

Primary type of fuel used (Check appropriate response)

☒ Natural gas ☐ Fuel oil ☐ Kerosene ☐ Electric ☐ Propane

☐ Solar ☐ Wood ☐ Coal

If hot water tank present, indicate fuel source:

Boiler/furnace is located in: ☐ Basement ☐ Outdoors ☒ Main floor ☐ Other: hanging by basement - middle room

Type of air conditioning: ☐ Central air ☐ Window units ☐ Open windows ☒ No mechanical system

Is outside replacement (make-up) air provided for combustion appliances? ☐ Yes ☐ No

If no; explain:

Are there air distribution ducts present? ☐ Yes ☐ No

Describe the supply and cold air return ductwork and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram:

Describe the type of mechanical ventilation systems used within or for the building (e.g., air-to-air exchangers, HVAC, etc.). Indicate whether the interior spaces of the building use separate ventilation systems and/or controls. Provide information on any existing building mitigation system (e.g., radon mitigation, passive venting systems, etc.). If available, provide information on air exchange rates for any existing mechanical ventilation systems currently in use.

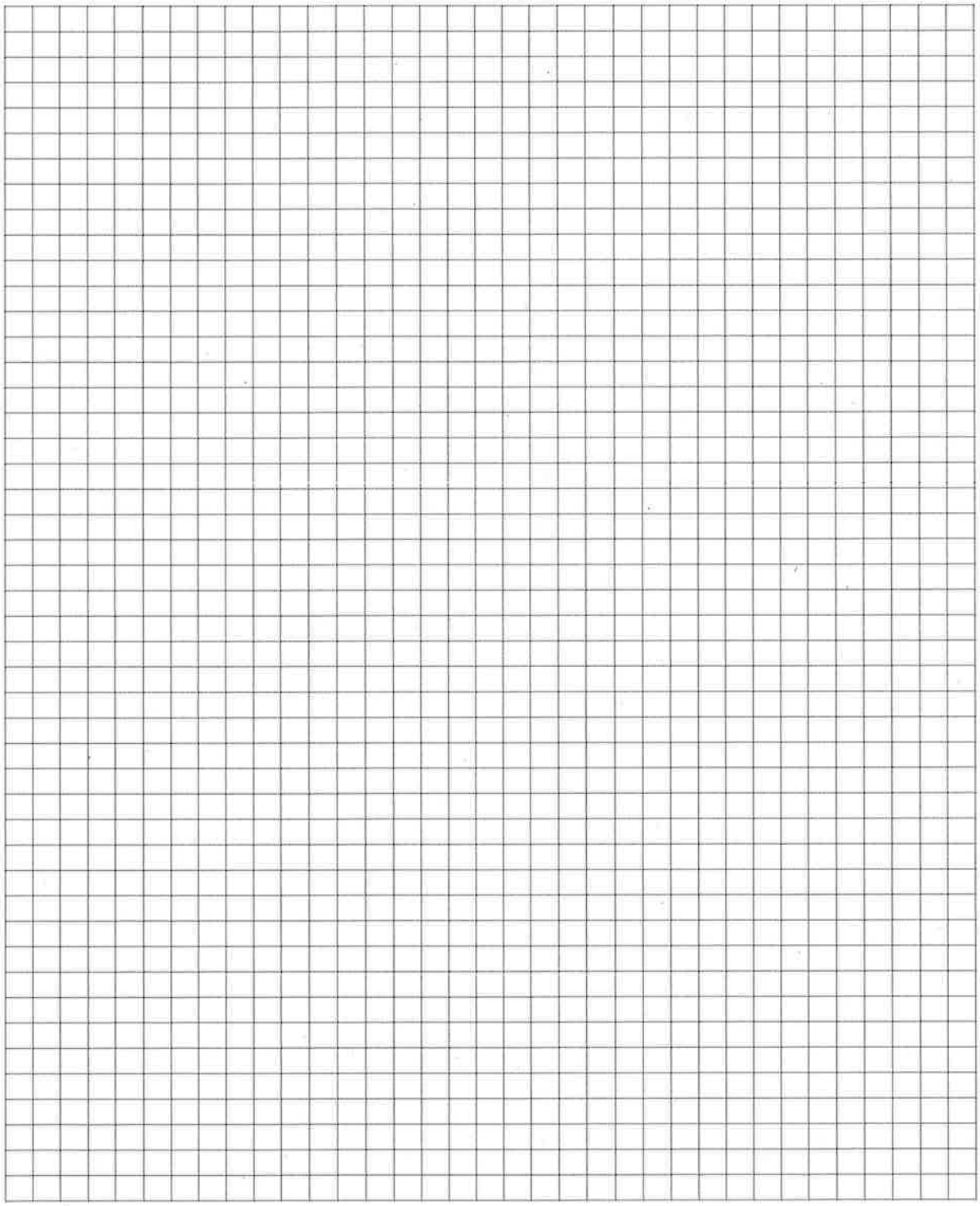
6. Summary of potential building vapor intrusion entry points

Earthen floors or incompetent floor slabs in the lowest level of building	☐ Yes ☒ No
Sumps (unsealed)	☒ Yes ☐ No
Large utility penetrations through floor and/or walls with exposure to sub-surface soils	☐ Yes ☒ No
Crawl spaces with earthen floors or incompetent floor conditions	☐ Yes ☒ No
Other (describe)	☐ Yes ☐ No

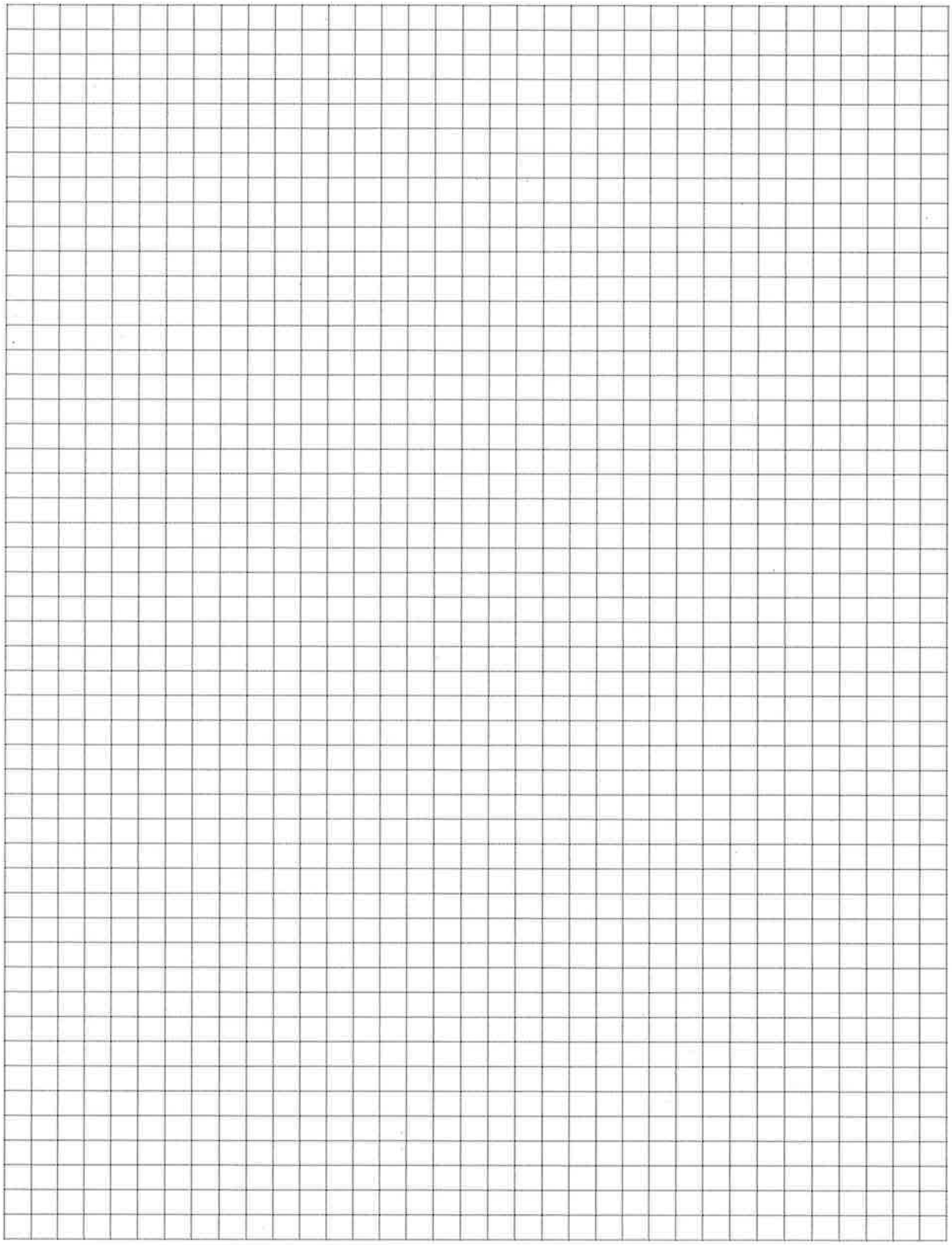
7. Is the use of the vapor intrusion attenuation factor (33X ISV screening level) valid for this building based on the above building conditions? ☐ Yes ☐ No

Outdoor grid plot (Include if outdoor ambient air samples collected):

Insert sketch (or attach separate document) of the area outside the building and locate outdoor air sample locations. If applicable, provide information on spill locations, potential air contamination sources, locations of wells, septic system, etc., and PID meter readings. Indicate wind direction and speed during sampling.



Floor above lowest level at property address: _____



Scale: _____ **North (indicate direction):** _____

Part 3: Indoor Air Quality Survey

Complete if indoor air sampling is conducted (use grids in Part 1 for labeling sampling locations).

Factors that may influence indoor air quality:

Is there an attached garage:	☐ Yes ☒ No		
Are petroleum-powered machines or vehicles stored in the garage (e.g., lawn mower, ATV, car):	☐ Yes ☒ No	Please specify:	lots of stored items in
Has the building ever had a fire:	☐ Yes ☒ No	When:	bldg, possibly somewhere.
Is a kerosene or unvented gas space heater present:	☐ Yes ☒ No	Where & type:	
Is there smoking in the building:	☐ Yes ☒ No	How frequently:	
Have cleaning products been used recently:	☐ Yes ☒ No	When & type:	
Have cosmetic products been used recently:	☐ Yes ☒ No	When & type:	
Has painting/staining been done in the last 6 months:	☐ Yes ☒ No	Where & when:	
Has any remodeling or construction occurred in the last 6 months:	☐ Yes ☒ No	Where & when:	
Is there new carpet, drapes, or other textiles:	☐ Yes ☒ No	Where & when:	
Have air fresheners been used recently:	☐ Yes ☒ No	When & type:	

Is there a clothes dryer: ☐ Yes ☒ No If yes, is it vented outside: _____

Are there odors in the building: ☒ Yes ☐ No If yes, please describe: musty, old bldg, moisture

Do any of the building occupants use solvents at work: ☐ Yes ☒ No

If yes, what types of solvents are used: _____

Do any of the building occupants regularly use or work at a dry-cleaning service: ☐ Yes ☒ No

If yes, indicate approximately how frequent: _____

Product inventory form (Add additional rows if needed)

Make and model of field instrument used: _____

List specific products identified in the building that have the potential to affect indoor air quality (add or delete rows as needed):

Location	Product description*	Comments	Instrument readings if taken and units

* Describe the condition of the product containers as Unopened (UO), Used (U), or Deteriorated (D). Include photographs of product containers as appropriate to document products and ingredients.

Location	Product description*	Comments	Instrument readings if taken and units

* Describe the condition of the product containers as Unopened (UO), Used (U), or Deteriorated (D).
Include photographs of product containers as appropriate to document products and ingredients.

Appendix D

Vapor Intrusion Building SurveyForm

Remediation Program

Doc Type: Site Inspection Information

Preparer's name: Erica Klingfus Date/Time prepared: 10/5/17

Affiliation: MSA Phone number: (218) 499-3171

Email: eklingfus@msa-ps.com

Part 1: Property owner & building occupant information

1. Owner/Landlord information (Check if same as occupant: ☐)

Occupant name(s): Luck Lumber Interviewed: ☒ Yes ☐ No

Mailing address: 244 Main St

City: Luck State: WI Zip code: 54853

Home phone: (715) 472-2979 Office phone:

2. Occupant information

Occupant name(s): Interviewed: ☐ Yes ☐ No

Mailing address:

City: State: Zip code:

Phone: Fax: Email:

Number of occupants at this location: Age range of occupants:

Part 2: Building evaluation

3. Building use (Check appropriate response)

☐ Residential ☐ Child/Day Care ☐ School ☐ Church ☐ Hospital ☐ Long-term care facility ☐ Correctional facility

☒ Commercial ☐ Industrial

☐ Other (specify):

If the property is residential, what type? (Check appropriate response)

☐ Ranch rambler ☐ Raised rambler ☐ Townhouses/Condos ☐ Duplex ☐ Modular ☐ 2-Family

☐ Split level ☐ Contemporary ☐ Apartment house ☐ Cape cod ☐ Log home ☐ 3-Family

☐ Colonial ☐ Mobile home ☐ Other (specify):

4. Building description

If the property is commercial or industrial, describe the business use(s):

slab on grade storefront / garage / storage for lumber / windows / doors / bldg. matls

Indicate the number of floors and general use of each floor of the building beginning with lowest level:

slab on grade

If there are multiple residential units, indicate how many units: N/A When was building constructed:

Type of insulation used in building: Elevators or lifts: ☐ Yes ☒ No

Basement/Lowest level depth below grade: N/A (feet)

Observed basement characteristics (Check all that apply)

Is basement/lowest level occupied:	☒ Full time	☐ Occasionally	☐ Almost never	Slab on grade	
Bedrooms in the basement/lowest level:	☐ Yes ☒ No	If yes, are the bedrooms occupied regularly: ☐ Yes ☐ No			
Basement type:	☐ Full	☐ Partial	☐ Slab	☐ Other:	N/A
Floor materials:	☒ Concrete	☐ Dirt	☐ Stone	☐ Other:	
Floor covering:	☒ Uncovered	☒ Covered	☐ Covered with:		
Concrete floor:	☒ Unsealed	☐ Sealed	☐ Sealed with:		
Foundation walls:	☐ Poured	☐ Block	☐ Stone	☐ Other:	N/A
Basement finished:	☐ Unfinished	☐ Finished	☐ Partially finished	N/A	
Basement wetness:	☐ Wet	☐ Damp	☐ Seldom	☐ Moldy	N/A
Sump pump present:	☐ Yes ☒ No	If yes, was water present: ☐ Yes ☐ No			
Are there any crawl spaces present:	☐ Yes ☒ No	If yes, describe the crawl space floor conditions (earth, concrete, etc.) and construction (walls, use, connectivity to building, etc.) and illustrate location on the attached grid plans:			
Have there been any building additions	☐ Yes ☐ No	Describe addition construction including how it ties to the existing floor plan (footings, slab connectivity, etc.) illustrate locations of additions on the attached grid plans:			

Thickness of the concrete floor slab in the lowest level(s): _____ Inches.

Soil type present beneath the building: _____

Is there evidence of saturated or high moisture conditions beneath the floor slab? ☐ Yes ☐ No

If yes, explain:

Indicate sources of water supply sources (i.e., drinking, irrigation, etc.) and type of sewage disposal (Check all that apply)

Water supply:	☒ Public water	☐ Drilled well	☐ Driven well	☐ Dug well
Sewage disposal:	☒ Public sewer	☐ Septic tank	☐ Leach field	☐ Dry well

5. Heating, venting, air conditioning, or other building controls (Check all that apply)

Type of heating system(s) used in this building (Check all that apply)

☒ Hot air circulation	☐ Space heaters	☐ Electric baseboard	☐ In-floor heating	☐ Heat pump
☐ Steam radiation	☐ Wood stove	☐ Hot water baseboard	☐ Radiant floor	☐ Outdoor wood boiler

☐ Other (specify): _____ **Primary type:** _____

Primary type of fuel used (Check appropriate response)

☒ Natural gas ☐ Fuel oil ☐ Kerosene ☐ Electric ☐ Propane
☐ Solar ☐ Wood ☐ Coal

If hot water tank present, indicate fuel source: _____

Boiler/furnace is located in: ☐ Basement ☐ Outdoors ☒ Main floor ☐ Other: _____

Type of air conditioning: ☐ Central air ☐ Window units ☐ Open windows ☐ No mechanical system

Is outside replacement (make-up) air provided for combustion appliances? ☐ Yes ☐ No

If no, explain:

Are there air distribution ducts present? ☒ Yes ☐ No

Describe the supply and cold air return ductwork and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram:

Describe the type of mechanical ventilation systems used within or for the building (e.g., air-to-air exchangers, HVAC, etc.). Indicate whether the interior spaces of the building use separate ventilation systems and/or controls. Provide information on any existing building mitigation system (e.g., radon mitigation, passive venting systems, etc.). If available, provide information on air exchange rates for any existing mechanical ventilation systems currently in use.

6. Summary of potential building vapor intrusion entry points

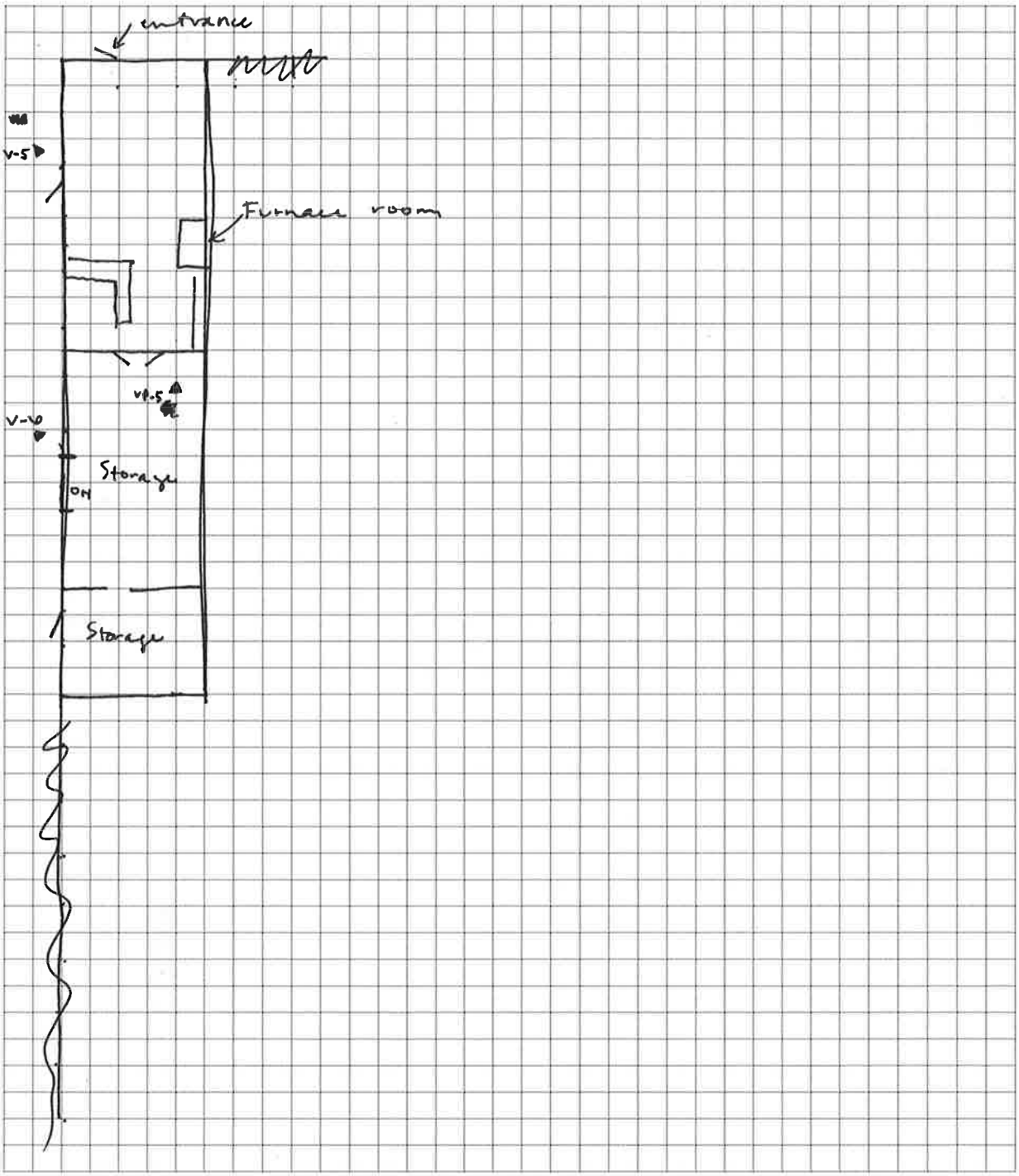
Earthen floors or incompetent floor slabs in the lowest level of building	☐ Yes	☒ No
Sumps (unsealed)	☐ Yes	☒ No
Large utility penetrations through floor and/or walls with exposure to sub-surface soils	☐ Yes	☒ No
Crawl spaces with earthen floors or incompetent floor conditions	☐ Yes	☒ No
Other (describe)	☐ Yes	☐ No

7. Is the use of the vapor intrusion attenuation factor (33X ISV screening level) valid for this building based on the above building conditions? ☐ Yes ☐ No

8. Grid plans

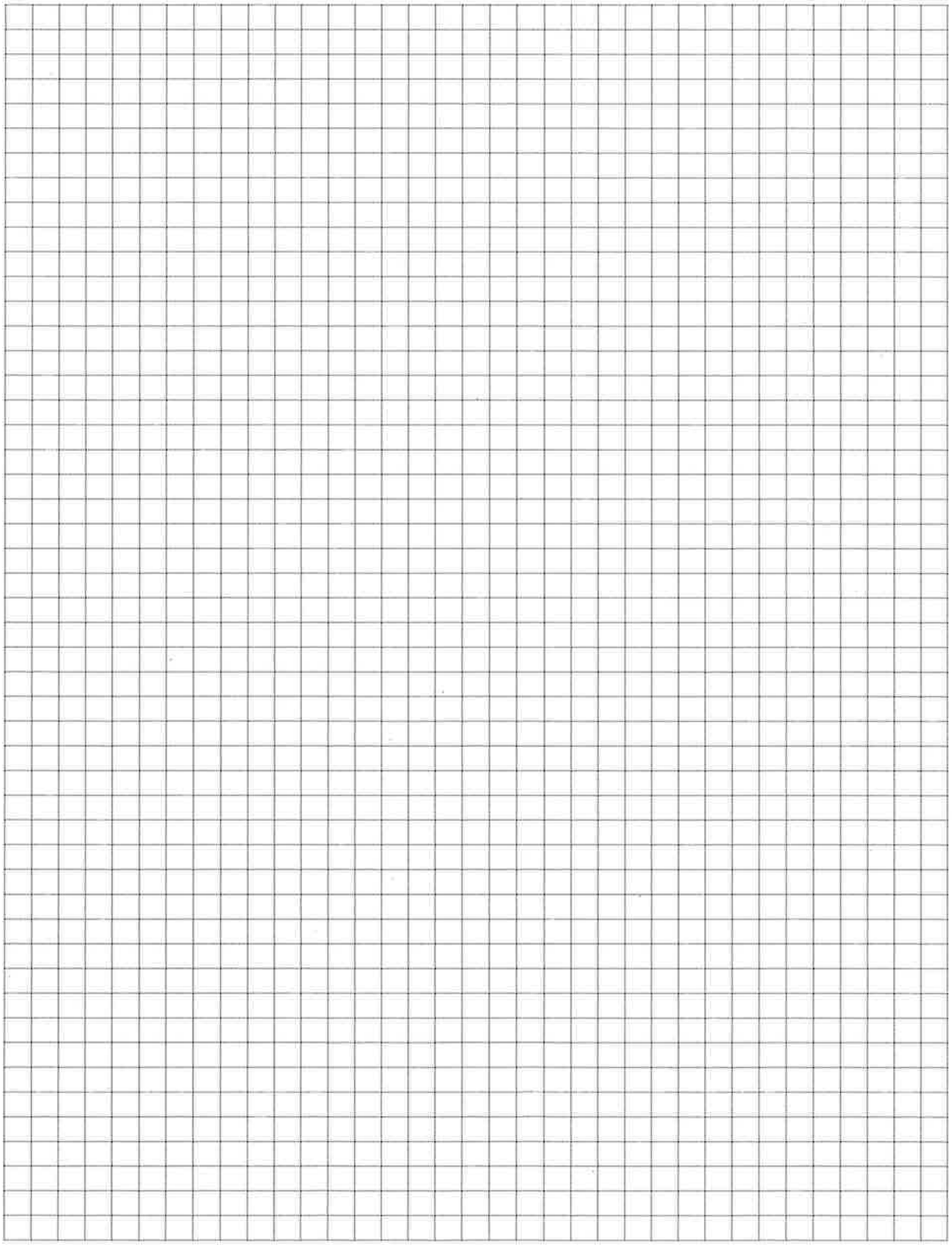
Use grid plans to describe floor plans, locate potential soil vapor entry points (e.g., cracks, utility ports, drains); and if applicable, identify sample locations (sub-slab, indoor air, outdoor air sampling).

Floor plan for basement or lowest level at property address: _____



Scale: □ = 5' **North (indicate direction):** →

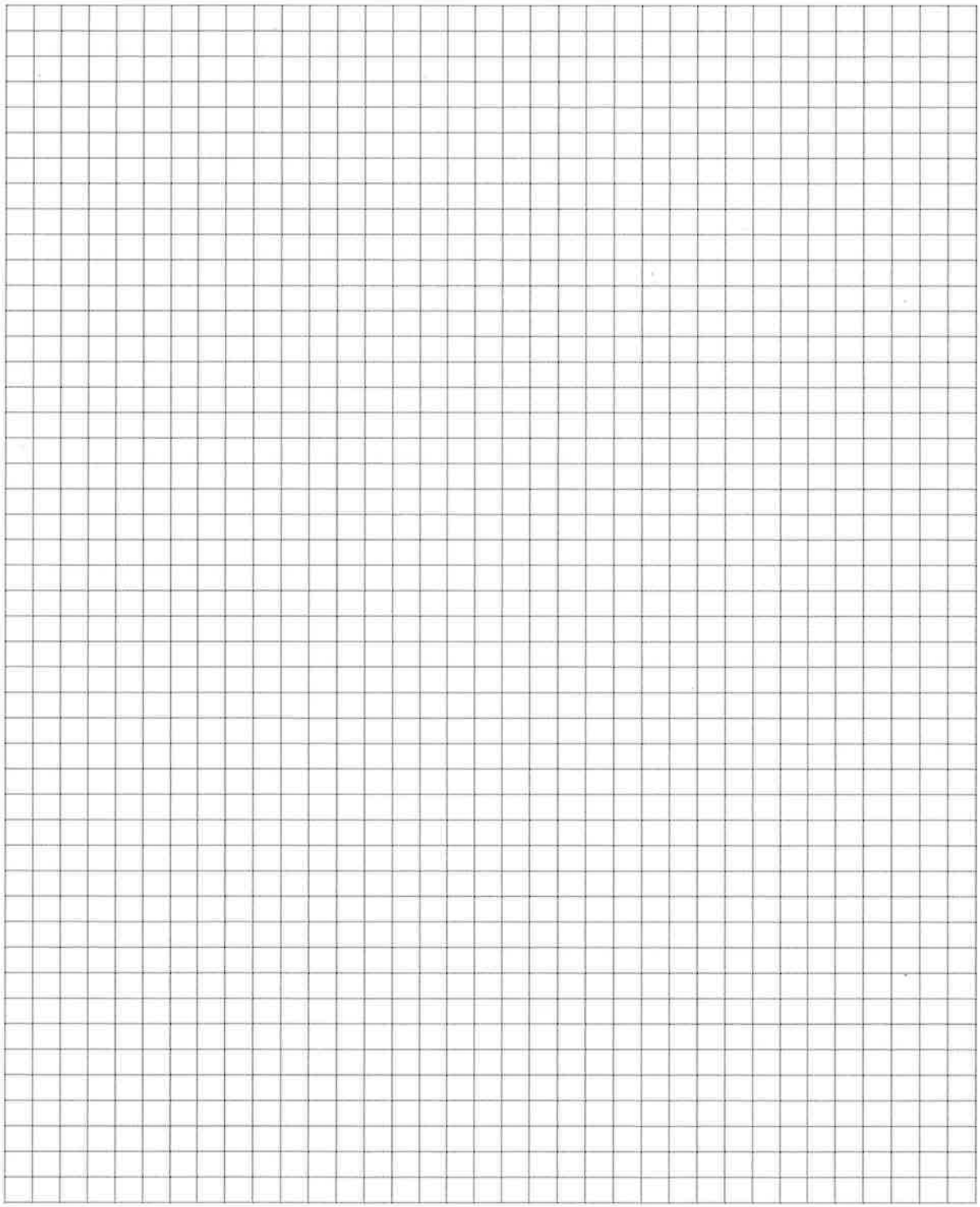
Floor above lowest level at property address: _____



Scale: _____ **North (indicate direction):** _____

Outdoor grid plot (Include if outdoor ambient air samples collected):

Insert sketch (or attach separate document) of the area outside the building and locate outdoor air sample locations. If applicable, provide information on spill locations, potential air contamination sources, locations of wells, septic system, etc., and PID meter readings. Indicate wind direction and speed during sampling.



Part 3: Indoor Air Quality Survey

Complete if indoor air sampling is conducted (use grids in Part 1 for labeling sampling locations).

Factors that may influence indoor air quality:

Is there an attached garage:	☒ Yes ☐ No		
Are petroleum-powered machines or vehicles stored in the garage (e.g., lawn mower, ATV, car):	☒ Yes ☐ No	Please specify:	stored sometimes -
Has the building ever had a fire:	☐ Yes ☒ No	When:	mainly lumber/windows/ doors
Is a kerosene or unvented gas space heater present:	☐ Yes ☒ No	Where & type:	
Is there smoking in the building:	☐ Yes ☒ No	How frequently:	
Have cleaning products been used recently:	☐ Yes ☒ No	When & type:	
Have cosmetic products been used recently:	☐ Yes ☒ No	When & type:	
Has painting/staining been done in the last 6 months:	☐ Yes ☒ No	Where & when:	
Has any remodeling or construction occurred in the last 6 months:	☐ Yes ☒ No	Where & when:	
Is there new carpet, drapes, or other textiles:	☐ Yes ☒ No	Where & when:	
Have air fresheners been used recently:	☐ Yes ☒ No	When & type:	

Is there a clothes dryer: ☐ Yes ☒ No If yes, is it vented outside: _____

Are there odors in the building: ☒ Yes ☐ No If yes, please describe: lumber, paint

Do any of the building occupants use solvents at work: ☐ Yes ☒ No

If yes, what types of solvents are used: _____

Do any of the building occupants regularly use or work at a dry-cleaning service: ☐ Yes ☒ No

If yes, indicate approximately how frequent: _____

Product inventory form (Add additional rows if needed)

Make and model of field instrument used: _____

List specific products identified in the building that have the potential to affect indoor air quality (add or delete rows as needed):

Location	Product description*	Comments	Instrument readings if taken and units

* Describe the condition of the product containers as Unopened (UO), Used (U), or Deteriorated (D). Include photographs of product containers as appropriate to document products and ingredients.

Appendix D

Location	Product description*	Comments	Instrument readings if taken and units

* Describe the condition of the product containers as Unopened (UO), Used (U), or Deteriorated (D).
Include photographs of product containers as appropriate to document products and ingredients.

Attachment A.4
VAPOR SAMPLING RESULTS
Laundry Basket
Luck, Wisconsin

Sample Location	Sample Date	Sample Interval (below ground surface)	Sample Type	PID (ppm)	Acetone	Benzene	Bromomethane	Carbon disulfide	Chloromethane	Cyclohexane	1,1-Dichloroethane	1,3-Dichlorobenzene	cis-1,2dichloroethene	trans-1,2 dichlorethene	1,2-Dichloropropane	Ethanol	Ethylbenzene	4-Ethyltoluene	1,4-Dichlorobenzene	Dichlorodifluoromethane	n-Heptane	n-Hexane	Methylene chloride	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Methy-tert-butyl ether (MTBE)	Naphthalene	2-Propanol	Propylene	Styrene	Tetrachloroethene	Tetrahydrofuran	Toluene	Trichloroethene	Trichlorofluoromethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	2,2,4-Trimethylpentane	Vinyl Chloride	Total Xylenes
VP-2	15-May-08	1-2 feet	Sub slab	0.0	690	<51		240	<33	<55			2400	550	<74	580	**87**	<79	<96	<79	<65	<56	**69**	<290	<100		<260	1500	<55		**160000***	<47	170	**6400**	<90	**79**	<79	100		460
VP-3	15-May-08	1-2 feet	Sub slab	0.0	1000	<64		930	<41	<69			150	<79	<92	1600	<87	<98	<120	<99	<82	<71	**210**	<370	<130		<330	4400	<69		**410000***	<59	680	**750**	<110	**98**	<98	160		210
VP-1	15-May-08	3-4 feet	soil gas		81	**5.4**		2.6	<0.83	5.9			2.4	<1.6	<1.8	130	7.8	4.5	<2.4	2.6	15	5.3	<1.4	24	<10		<6.6	34	57		**2800**	3.2	34	**23**	<2.2	22	4.9	<1.9		41
VP-4	15-May-08	3-4 feet	soil gas		64	**10**		6.5	<1.7	38			4.0	<3.2	<3.7	38	5.2	4.9	<4.8	<4.0	49	78	<2.8	<15	<20		<13	<12	45		**4000***	<2.4	19	**36**	<4.5	21	13	<3.7		34
VP-5	15-May-08	3-4 feet	soil gas		29	**3.8**		1.2	1.3	1.6			4.0	<1.6	<1.8	170	6.9	4.4	<2.4	2.6	3.8	3.3	<1.4	14	<10		<6.6	34	9.3		**3100***	<1.2	23	**17**	<2.2	22	4.9	<1.9		37
VP-6	15-May-08	3-4 feet	soil gas		17	**4.5**		<1.2	1.3	2.0			<1.6	<1.6	<1.8	120	5.2	3.6	<2.4	2.8	3.4	4.2	<1.4	9.1	<10		<6.6	22	10		**810***	<1.2	20	**2.3**	<2.2	19	4.5	<1.9		29
Target Shallow Gas Concentration					3500	3.1		7000							40		22		8000	2000			52	10000	800		30				8.1		4000	0.22	7000	60	60			
Basement	27-Jul-10	Laundry Basket Basement	Indoor Air		<25.5	<34.5		<33.5	<22.3	<36.1			<43.1	<48.9	<50.0	<101	<46.8	<133	<63.8	<53.2	<44.1	<38.3	66.2	<31.9	<44.1		<144	<133	<18.6		**466**	<31.9	<40.9	<58.5	<58.5	<133	<133			<140.3
Outside	27-Jul-10	Laundry Basket Foyer	Outside Air		8.5	2.3		<0.90	<0.60	2.8			<1.2	<1.2	<1.3	<2.7	<1.3	<3.6	<1.7	2.1	2.0	3.9	<1.0	<0.86	<1.2		<3.9	<3.6	128		8.0	<0.86	5.2	<1.6	<1.6	<3.6	<3.6			<3.8
Store Room	27-Jul-10	Laundry Basket Store Room	Indoor Air		23.1	1.4		<0.90	1.0	4.2			<1.2	<1.2	<1.3	<54.3	<1.3	<3.6	<1.7	2.6	16.2	2.5	5.5	3.3	16.6		<3.9	<3.6	1.2		**1530**	<0.86	7.8	1.9	1.8	<3.6	<3.6			<3.8
AA-1	2-Jun-11	Background - Outdoor	Outside Air		5.6	0.99		<0.87	<0.58	<0.94			<1.1	<1.1	<1.3	6.2	1.6	<3.4	2.1	2.2	<1.1	1.5	<0.98	1.8	1.4		<3.7	5.5	<0.48		<1.9	<0.83	4.0	2.2	1.6	2.2	1.4			6.0
AA-2	2-Jun-11	Computer Store Basement	Indoor Air		7.3	<0.93		<0.90	0.68	<0.97			<1.2	<1.2	<1.3	5.1	1.5	<3.6	<1.7	2.2	<1.2	1.5	<1.0	<0.86	<1.2		<3.9	<3.6	<0.50		<2.0	<0.86	2.3	2.7	1.6	1.8	1.4			4.3
VP-7	7-Feb-13	Laundry Basket Foyer	Outside Air		5.2	0.65		<0.84	0.68	<0.94			<1.1	<1.1	<1.3		<1.2	<1.3	<1.6	1.9	2.0	<0.96	<0.95	<0.80	<1.1				<0.47		<0.92	<0.80	3.2	<0.74	<1.5	3.2	<1.3			<1.2
VP-8	7-Feb-13	Laundry Basket Utility Closet	Indoor Air		7.1	0.71		<0.91	0.81	<1.0			<1.2	<1.2	<1.4		<1.3	<1.4	<1.8	2.0	3.1	1.5	1.2	1.3	<1.2				<0.50		2.1	<0.86	3.8	<0.79	<1.6	3.8	<1.4			<1.3
VP-9	7-Feb-13	Laundry Basket Basement	Indoor Air		6.4	3.5		<0.88	0.65	3.4			<1.1	<1.1	<1.3		<1.2	3.2	<1.7	1.8	6.2	4.3	<0.99	1.9	<1.2				<0.49		<0.96	<0.83	11.5	<0.76	<1.6	4.7	3.4			3.6
V-1	30-Apr-13	1-2 feet	Sub slab		79.7	3.5	1.3	7.6	<0.65	<1.1	4.7		<1.3	<1.3	<1.5	26.1	2.2	<1.6	<1.9	<1.6	3.7	8.4	2.0	8.0	3.2	<1.1	3.2	3.3	<0.54	2.9	<1.1	<0.93	13.6	4.5	<1.8	3.7	<1.5			6.6
V-2	30-Apr-13	1-2 feet	Sub slab		114	9.2	<2.1	17.6	<1.1	<1.9	<3.3		<2.2	<2.2	<2.5	240	<2.4	<2.7	<3.3	<2.7	<2.2	17.9	3.7	9.8	<2.2	<2.0	<2.9	<1.3	<0.94	5.1	<1.9	<1.6	17.5	<1.5	<3.1	5.1	<2.7			10.4
V-3	30-Apr-13	1-2 feet	Sub slab		115	6.7	<1.3	1.3	<0.68	<1.1	<2.0		<1.3	<1.3	<1.5	106	<1.4	<1.6	<2.0	1.9	<1.3	19.6	35.2	13.4	<1.3	3.3	<1.7	4.1	<0.56	<1.4	<1.1	<0.97	10.7	<0.89	<1.8	3.4	<1.6			7.0
V-4	30-Apr-13	1-2 feet	Sub slab		106	4.7	<1.3	1.6	<0.68	<1.1	<2.0		<1.3	<1.3	<1.5	96.5	<1.4	<1.6	<2.0	2.2	<1.3	18.7	18.4	15.6	<1.3	3.5	2.7	<0.80	<0.56	<1.4	<1.1	<0.97	8.9	<0.89	<1.8	<1.6	<1.6			1.9
V-5	30-Apr-13	1-2 feet	Sub slab		144	4.1	<1.1	1.8	<0.58	<0.97	3.5		<1.1	<1.1	<1.3	135	1.9	<1.4	<1.7	2.4	4.2	15.4	1.6	21.8	<1.2	5.5	2.8	4.1	<0.49	<1.2	<0.96	<0.83	8.6	<0.76	<1.6	3.2	<1.4			4.8
V-6	30-Apr-13	1-2 feet	Sub slab		81.9	4.9	<1.2	2.0	<0.65	<1.1	<1.9		<1.3	3.6	<1.5	70.8	<1.4	<1.6	<1.9	2.7	<1.3	11.6	2.6	9.5	<1.3	<1.1	1.9	2.3	<0.54	2.8	4.3	<0.93	11.1	44.8	<1.8	<1.5	<1.5			5.7
Basement	13-Mar-17	Laundry Basket Basement	Indoor Air		21.0	0.98	<0.46	<0.15	0.79	2.6	<0.79		<0.37	1.5	<0.40	19.8	<0.63	<0.28	<0.74	1.9	5.9	19.2	200	<0.34	<0.32	<0.45	<0.45	5	<0.20	<0.29	<0.41	<0.18	2.4	<0.41	1.1J	1.2J	<0.27			<1.72
Foyer	13-Mar-17	Laundry Basket Foyer	Indoor Air		22.6	0.52	<0.48	<0.16	0.76	0.60J	<0.82		<0.38	3.1	<0.42	76.9	<0.66	<0.29	<0.77	1.6	1.3J	2	1.3J	4.9	<0.34	<0.47	<0.47	4.5	<0.21	<0.30	<0.43	<0.18	0.89J	<0.43	0.99J	<0.19	<0.28			<1.74
Store Room	13-Mar-17	Laundry Basket Store Room	Indoor Air		10.9	0.52	<0.48	<0.16	0.67	<0.49	<0.82		<0.38	<0.40	<0.42	24.2	<0.66	<0.29	<0.77	2.4	2.2	2.5	<0.84	3.4J	<0.34	<0.47	<0.47	0.45J	<0.21	<0.30	<0.43	<0.18	1.1J	<0.43	1.0J	<0.19	<0.28			<1.74
VP-1	13-Mar-17	1-2 feet	Sub slab		78.9	1.4	<0.52	<0.17	0.87	2.4	<0.89		<0.41	4	<0.45	32.3	<0.71	<0.32	<0.84	1.5J	6	4.3	<0.91	7.2	<0.36	<0.51	8.2	35.5	<0.23	<0.32	47.9	<0.20	1.7	<0.46	1.1J	3.9J	<0.31			3.9
VP-2	13-Mar-17	1-2 feet	Sub slab		112	1.6	<0.54	<0.18	0.89	0.61J	<0.93		<0.43	3	<0.47	6.5	<0.74	<0.33	<0.87	1.7J	1.8	3.4	<0.95	4.2J	7.8	<0.53	3.4J	6.6	<0.24	<0.34	6.8	<0.21	1.0J	<0.48	1.0J	<0.22	<0.32			4
VP-3	13-Mar-17	1-2 feet	Sub slab		0.0J	**41,500**	0.0J	0.0J	0.0J	**1,550,000**	0.0J		36,000	0.0J	0.0J	0.0J	**19,400**	22,100	0.0J	1,570J	1,840,000	**3,320,000**	2,030J	0.0J	0.0J	0.0J	**27,400**	0.0J	0.0J	0.0J	0.0J	0.0J	70,100	0.0J	0.0J	**85,900**	32,600			**147400**
VP-4	14-Mar-17	1-2 feet	Sub slab		72.1	6.9	0.0J	0.0J	0.0J	1.8	0.0J		0.0J	0.0J	0.0J	13.8	5.0	0.24J	0.0J	2.6	2.6	4.9	1.7J	24.2	1.4J	0.0J	7.7	4.6	0.0J	27.9	2.2	0.0J	1.5	0.0J	2.6	1.2J	0.33J			1.26
	6-Oct-17	1-2 feet	Sub slab									<0.37	<0.60	<0.52																								<0.22	
VP-5 (Luck Lumber)	14-Mar-17	1-2 feet	Sub slab		9.0	0.42J	0.0J	0.0J	0.22J	0.0J		0.0J	0.0J	0.0J	0.0J	5.7	0.11J	0.0J	0.0J	2.4	0.75J	1.2	2.6J	1.7J	0.0J	0.0J	3.8J	0.89J	0.0J	0.0J	0.22J	0.0J	0.32J	0.0J	1.4J	2.4J	0.0J			0.31
	6-Oct-17	1-2 feet	Sub slab									<0.37	<0.60	<0.52																	14.4			<0.47					<0.22	
VP-6 (Bri-Bri)	14-Mar-17	1-2 feet	Sub slab		33.4	2.2	<0.48	<0.16	<0.17	0.82J	<0.82		<0.38	<0.60	<0.42	7.7	<0.66	<0.29	<0.77	1.8	1.3J	3.2	<0.84	1.8J	<0.34	<0.47	3.5J	0.79J	<0.21	<0.30	36.4	<0.18	1.4	<0.43	<0.20	<0.19	<0.28			<1.74
	6-Oct-17	1-2 feet	Sub slab									<0.41	<0.65	<0.57																	192			<0.51					<0.24	
VP-7 (Natural	15-Mar-17	1-2 feet	Sub slab		8	9.6	<0.48	<0.16	<0.17	1.3	<0.82		<0.38	<0.60	<0.42	2.5	<0.66	<0.29	<0.77	1.9	3.7	7	<0.84	1.8J	<0.34	<0.47	3.3J	<0.37	<0.21	2.3	68.6	<0.18	2.6	<0.43	0.95J	4.8	<0.28			4.28
Alternative utility)	6-Oct-17	1-2 feet	Sub slab									<0.34	<0.55	<0.47																	80.9			<0.43					<0.20	
VP-8 (Natural	15-Mar-17	1-2 feet	Sub slab		72.6	5.2	<0.46	10.7	0.67	1.5	<0.79		<0.37	<0.57	<0.40	10.7	<0.63	<0.28	<0.74	1.6	2.4	3.9	1.6J	5.6	<0.32	<0.45	1.5J	3.4J	0.47J	<0.29	5	<0.18	1.4	<0.41	1.1J	1.2J	<0.27			0.67
Alternative storage)	6-Oct-17	1-2 feet										<0.36	<0.57	<0.50																	20.0			<0.45					<0.21	
UC-1	14-Mar-17	6 feet	Soil gas		25.4	1.1	<0.43	0.45J	1.4	0.85J	<0.74		<0.34	<0.53	<0.38	25.5	0.70J	1.0J	<0.69	1.6	0.94J	6.5	11.8	5.3	<0.30	<0.42	<0.42	1.6J	66.4	<0.27	1.7J	<0.17	3.7	<0.38	1.0J	2.7J	<0.25			4.4
UC-2	14-Mar-17	6 feet	Soil gas		43.7	1.3	<0.48	0.61J	<0.17	0.75J	<0.82		<0.38	<0.60	<0.42	2.1	1.6	<0.29	<0.77	6.3	1.5	6.1	<0.84	10.5	<0.34	<0.47	<0.47	<0.37	66	<0.30	12.3	<0.18	5.3	<0.43	1.4J	<0.19	<0.28			5.5
UC-3	14-Mar-17	3.5 feet	Soil gas		33.4	3.7	<0.46	1.6	1.4	1.8	<0.79		<0.37	<0.57	<0.40	3.8	0.79J	<0.28	<0.74	1.1J	2.5	10.7	<0.81	9.8	<0.32	<0.45	<0.45	<0.36	179	<0.29	<0.41	<0.18	5.3	<0.41	<0.20	<0.19	<0.27			2.3
V-5 (Resample)	14-Mar-17	1-2 feet	Sub slab (outdoor)		26.9	2.1	<0.31	<0.16	0.38J	1.0J	<0.85		<0.40	<0.62	<0.43	6.7	25	26.4	<0.80	1.6J	1.8	2.4	<0.87	3.9J	<0.35	<0.49	5.7	<0.39	<0.22	0.75J	11.1	<0.19	20.5	<0.44	1.1J	120	37.2			188.8
WI Sub Slab Vapor Risk Screening Level - Small Commercial (May 2016)					4,600,000	530	730	102,000	13,000	860,000			--	--	--	400	--	1,600	--	400	15,000	--	102,000	86,000	73,000	730,000	16,000	120	--	430,000	150,000	6,000	290,000	730,000	290	--	1,020	--	--		15,000
WI Sub Slab Vapor Risk Screening Level - Small Commercial (June 2017)					4,600,000	530	730	102,000	13,000	860,000	2,600		--	--	--	400	--	1,600	--	400	15,000	--	102,000	87,000	73,000	730,000	16,000	120	--	430,000	150,000	6,000	290,000	730,000	290	--	8,700	8,700	--	930	15,000
Non-Residential Indoor Air Vapor Action Level					140,000	16	22	3,100	390	26,000	77		--	--	--	12	--	49	--	11	440	--	3,100	2,600	22,000	13,000	470	3.6	--	13,000	4,400	180	8,800	22,000	8.8	--	31	--	--	28	440

All concentrations are in ug/m3
Only those compounds which exceed Reporting Limits are summarized, see analytical report for full list.
All results are reported in ug/m^3 (micrograms per cubic meter)
<1.5 = not detected above the Reporting Limit
-- = does not apply
* PCE value greater than upper calibration limit
Non-Residential Indoor Air Vapor Action Levels are from the EPA Regional Screening Level (RSL) Industrial Air Supporting Table, May 2016
WI Sub Slab Vapor Risk Screening Levels (VRSLs) were calculated using May 2016 VALs (attenuation factor of 0.03)
Target Shallow Gas Concentrations are from Table 2c, EPA OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway (November 2002). Based on 1 in 1,000,000 risk, air attenuation factor of 0.1.
Values in BOLD exceed their respective target shallow soil gas or indoor air vapor action level.

2000 0 2000

SCALE IN FEET

N
W E
S

Luck Quadrangle
Wisconsin - Polk County
7.5 Minute Series (Topographic)

Contour Interval 10 Feet
1983

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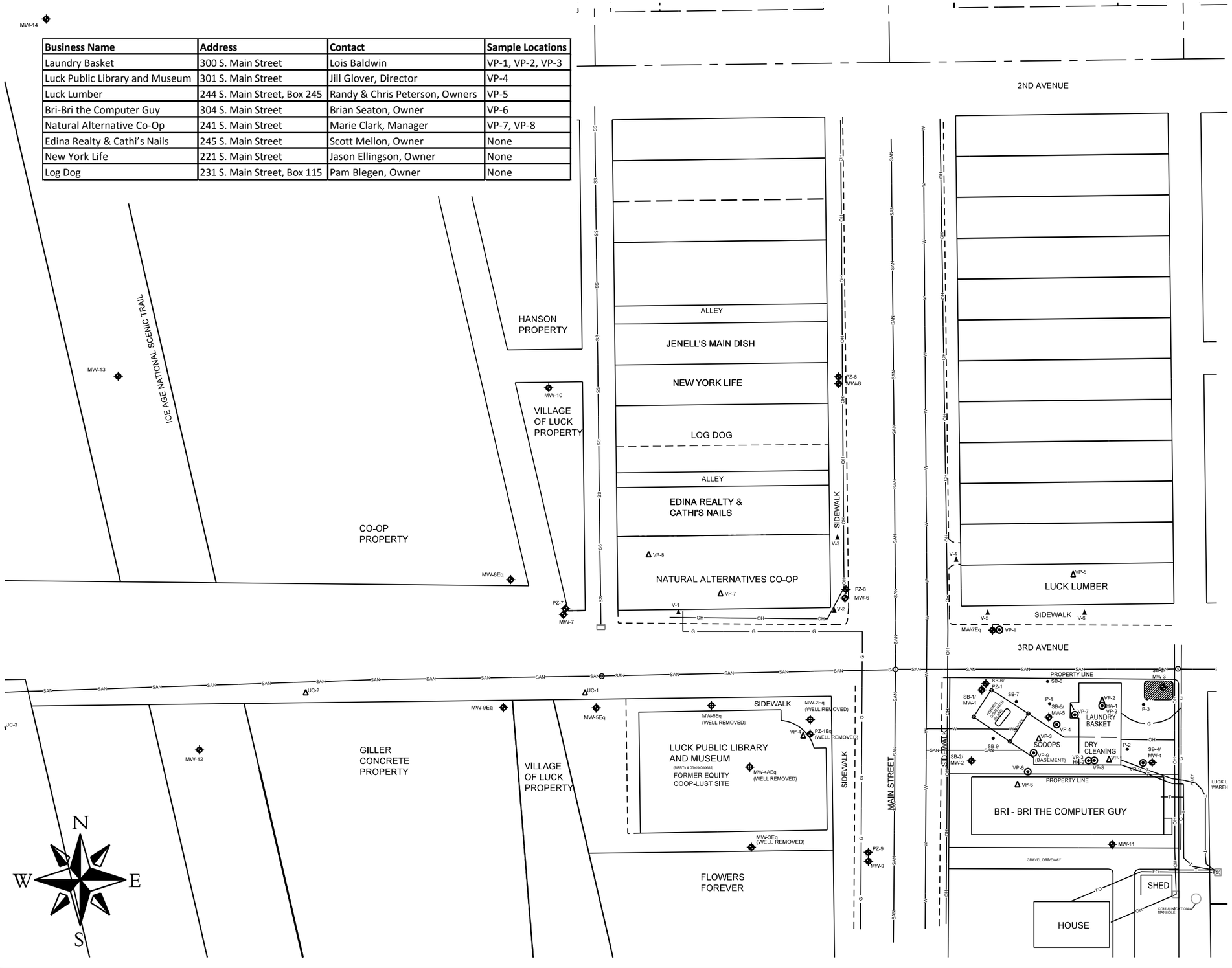
FIGURE B.1.a
LOCATION MAP
LAUNDRY BASKET
LUCK, WISCONSIN

6080801
FIGURE B1a

Business Name	Address	Contact	Sample Locations
Laundry Basket	300 S. Main Street	Lois Baldwin	VP-1, VP-2, VP-3
Luck Public Library and Museum	301 S. Main Street	Jill Glover, Director	VP-4
Luck Lumber	244 S. Main Street, Box 245	Randy & Chris Peterson, Owners	VP-5
Bri-Bri the Computer Guy	304 S. Main Street	Brian Seaton, Owner	VP-6
Natural Alternative Co-Op	241 S. Main Street	Marie Clark, Manager	VP-7, VP-8
Edina Realty & Cathi's Nails	245 S. Main Street	Scott Mellon, Owner	None
New York Life	221 S. Main Street	Jason Ellingson, Owner	None
Log Dog	231 S. Main Street, Box 115	Pam Blegen, Owner	None



LEGEND

- P-1 — KONICEK ENVIRONMENTAL CONSULTING SOIL BORING
- MW-5Eq — MONITORING WELL ASSOCIATED WITH EQUITY CO-OP SITE
- SB-1/ MW-1 — MONITORING WELL AND OR SOIL BORING COMPLETED BY MSA
- W — WATERMAIN
- OH — OVERHEAD ELECTRIC
- G — UNDERGROUND GAS LINE
- T — UNDERGROUND TELEPHONE
- SAN — SANITARY SEWER MANHOLE AND UNDERGROUND LINE
- FO — FIBER OPTIC
- SS — STORM SEWER
- SUSPECTED LOCATION OF FORMER UST
- HA-1 VP-2 — VAPOR/SOIL SAMPLE WITH LABEL
- SB-8 — MSA SOIL BORING
- PROPERTY LINE
- FIBER OPTIC BOX/ COMMUNICATION BOX
- PIEZOMETER WELL
- WATER TABLE MONITORING WELL
- STORM SEWER GRATE
- VAPOR PROBE, APRIL 2013
- VAPOR PROBE, MARCH 2017

60 0 60

SCALE IN FEET

FIGURE B.1.b

DETAILED SITE MAP
LAUNDRY BASKET
LUCK, WISCONSIN

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DRAWN BY	CAR	DATE	4/17
CHECKED BY	PK	SCALE	AS SHOWN

SHEET _ of _
FILE NO. FIGURE B1b

N
W E
S

MW-14
MW-13
MW-12
MW-10
MW-8Eq
MW-9Eq
MW-5Eq
MW-7Eq
MW-6
MW-7
MW-8
MW-9
PZ-7
PZ-8
PZ-9
PZ-1Eq (WELL REMOVED)
MW-2Eq (WELL REMOVED)
MW-3Eq (WELL REMOVED)
MW-4AEq (WELL REMOVED)
MW-5Eq (WELL REMOVED)
MW-11
UC-1
UC-2
UC-3
V-1
V-2
V-3
V-4
V-5
V-6
VP-1
VP-2
VP-3
VP-4
VP-5
VP-6
VP-7
VP-8
VP-9
HA-1
HA-2
P-1
P-2
P-3
SB-1/ MW-1
SB-2/ MW-2
SB-4/ MW-4
SB-5/ MW-5
SB-6/ PZ-1
SB-7
SB-8
SB-9

ICE AGE NATIONAL SCENIC TRAIL

2ND AVENUE

3RD AVENUE

HANSON PROPERTY

VILLAGE OF LUCK PROPERTY

CO-OP PROPERTY

GILLER CONCRETE PROPERTY

VILLAGE OF LUCK PROPERTY

FLOWERS FOREVER

ALLEY

JENELL'S MAIN DISH

NEW YORK LIFE

HARVEY'S WOODWORKING AND REFINISHING

REUPHOLSTERING BUSINESS

ALLEY

EDINA REALTY & CATHI'S NAILS

NATURAL ALTERNATIVES

LUCK MUSEUM AND LIBRARY
(BRRTS # 02-48-000895)
FORMER EQUITY COOP-LUST SITE

LUCK LUMBER

LAUNDRY BASKET

DRY CLEANING

SCOOPS

BRI - BRI THE COMPUTER GUY

HOUSE

SHED

SIDEWALK

MAIN STREET

PROPERTY LINE

GRAVEL DRIVEWAY

COMMUNICATION MANHOLE

LUCK L WAREH

LEGEND

- P-1 — KONICEK ENVIRONMENTAL CONSULTING SOIL BORING
- MW-5Eq — MONITORING WELL ASSOCIATED WITH EQUITY CO-OP SITE
- SB-1/ MW-1 — MONITORING WELL AND OR SOIL BORING COMPLETED BY MSA
- W — WATERMAIN
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- SUSPECTED LOCATION OF FORMER UST
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- SB-8 — MSA SOIL BORING
- PROPERTY LINE
- FIBER OPTIC BOX/ COMMUNICATION BOX
- PIEZOMETER WELL
- WATER TABLE MONITORING WELL
- STORM SEWER GRATE
- VAPOR PROBE, APRIL 2013
- VAPOR PROBE, MARCH 2017

60 0 60
SCALE IN FEET

FIGURE B.4.a

VAPOR INTRUSION MAP
LAUNDRY BASKET
LUCK, WISCONSIN

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DRAWN BY CAR | DATE 4/17
CHECKED BY PK | SCALE AS SHOWN
SHEET - of - | FILE NO. FIGURE B4a