January 31, 2024

Tim Helppi Building and Grounds Director Buffalo-Hanover-Montrose Schools 214 1st Avenue NE Buffalo, MN 55313



RE: Buffalo Community Middle School and Discovery Elementary Short-Term Radon Testing Results

IEA Project #202310801

Dear Mr. Helppi:

IEA placed 272 Air Chek Pro Chek short-term radon test kits in 233 locations in the following district buildings for the purpose of evaluating radon levels:

 Buffalo Community Middle School – 142 locations Discovery Elementary –
 91 locations

The number of kits placed includes those used for quality control purposes. See Appendix A for Quality Control information.

The radon test kits were placed by the following Minnesota Department of Health (MDH) licensed Radon Measurement Professional(s):

Measurement Professional	License Number	Signature
Faith Breeden	RMEA-00538	FaithBreder
Erin Bengston	RMEA-00533	Erin Bengtson

#### **INTRODUCTION**

Radon is a colorless, odorless, tasteless, radioactive gas that occurs naturally in soil, rocks, and underground water supplies and in the ambient air. According to the U.S. Environmental Protection Agency (EPA) and other scientific organizations, naturally occurring radon gas has been associated with an increased risk of developing lung cancer. The chances of developing lung cancer from radon exposure are dependent on several factors, including individual susceptibility and, perhaps more importantly, the dose and duration of exposure. Radon testing in schools is highly recommended by the Minnesota Department of Health (MDH) and EPA.

#### **METHODOLOGY**

IEA placed Air Chek Pro Chek short-term radon test kits in frequently occupied areas in the buildings listed above in the District for the purpose of sampling for radon in accordance with the MDH's Guidance for Radon Testing in Minnesota Schools (2021) and ANSI/AARST MA-MFLB 'Protocol for Conducting Measurements of Radon and Radon Decay Products in Multifamily, Schools and Commercial and Multi-Use Buildings' (ANSI/AARST MA-MFLB 2023).

A total of 272 radon test kits were placed from January 2, 2024, to January 5, 2024, for a total short-term sampling period of 3 days. The radon test kits were analyzed by AirChek, Inc., MDH license #RL-00003, located at 1936 Butler Bridge Road, Mills River, NC 28759. The Analysis Methodologies are provided in Appendix A.

Air intakes and ventilation systems were operating in normal condition at the time of placement and retrieval. IEA was informed that the HVAC was on a normal operating schedule during the testing period.

IEA followed ANSI/AARST MA-MFLB 2023 for quality assurance measurements by including duplicate kits, control kits (blanks), and spiked kits.

Client communications and commitments were delivered to the client and are located in Appendix C:

- Client Commitments, Advisories and Authorizations
- Facilitating Staff Commitments

Occupant notices were sent to the client for distribution on December 13, 2023.

#### **EVALUATION CRITERIA**

The MDH and the EPA have established a recommended action level in intended to be occupied areas of 4.0 picocuries per liter (pCi/L) for an annual average. Testing was conducted during school days when the building is significantly occupied. The HVAC system was set on a normal occupied operating schedule. Testing was conducted during the heating season when the average outdoor temperature is less than 65°F, as recommended by the MDH, when the ventilation system was operating normally, and windows and doors were closed. Consequently, sampling under these "closed" conditions is when the radon risk is most likely to occur.

MDH recommends follow-up testing for sampling results that are above the action level. Please refer to the following table for MDH guidelines:

RESULTS (pCi/L)	RECOMMENDED ACTION
LESS THAN 4	Re-test after changes to foundation or HVAC and every 5 years
GREATER THAN 4	Conduct CRM short-term testing during winter months
LESS THAN 4 ( <u>DURING OCCUPANCY</u> ) AFTER CRM TESTING	Repeat CRM testing if not conducted during winter or if conducted during abnormal ventilation. Otherwise consider re-testing after changes to foundation or HVAC and every 5 years
GREATER THAN 4 ( <u>DURING OCCUPANCY</u> ) AFTER CRM TESTING	Reduce radon in rooms to less than 4 through radon mitigation. Conduct CRM testing to verify radon reduction.

CRM: Continuous Radon Monitor

#### **RESULTS & DISCUSSION**

The laboratory report and maps of each building with sampling locations are provided in Appendix B. The following includes summary results for each building.

#### **Buffalo Community Middle School**

1300 Highway 25 North, Buffalo, MN 55313

A total of 162 test kits were placed in 142 locations at Buffalo Community Middle School. There were no kits that were found missing or damaged when the test kits were collected. The number of missing test kits did not exceed allowance in the ANSI/AARST MA-MFLB 2023 standard.

The results indicated that radon levels in Buffalo Community Middle School were below the action level of 4 pCi/L. See Table 1 below for a summary of the results:

TABLE 1: BUFFALO COMMUNITY MIDDLE SCHOOL - RANGE OF RESULTS							
	0.0 – 1.9 pCi/L	2.0 – 2.9 pCi/L	3.0 – 3.9 pCi/L	≥ 4 pCi/L			
Number of Tests	142	0	0	O <sup>1</sup>			
<sup>1</sup> All results were below the action level of 4 pCi/L							

pCi/L: picocuries per liter

#### **Discovery Elementary**

301 2nd Avenue NE #1653, Buffalo, MN 55313

A total of 110 test kits were placed in 91 locations at Discovery Elementary. No test kits were missing or damaged when the test kits were collected. The number of missing test kits did not exceed allowance in the ANSI/AARST MA-MFLB 2023 standard.

The results indicated that radon levels in Discovery Elementary were below the action level of 4 pCi/L. See Table 2 below for a summary of the results:

TABLE 2: DISCOVERY ELEMENTARY - RANGE OF RESULTS							
	0.0 – 1.9 pCi/L	2.0 – 2.9 pCi/L	3.0 – 3.9 pCi/L	≥ 4 pCi/L			
Number of Tests	82	6	3	O <sup>1</sup>			
<sup>1</sup> All results were below	<sup>1</sup> All results were below the action level of 4 pCi/L						

pCi/L: picocuries per liter

#### **CONCLUSIONS AND RECOMMENDATIONS**

It is recommended by ANSI/AARST MA-MFLB 2023 to consider taking action and address results of radon concentrations greater than half the action level (2-4 pCi/L).

The EPA has established recommended guidelines for permissible radon concentrations in schools. The following are general recommendations for frequently occupied areas of schools:

- The building should be retested at least every 5 years and in conjunction with any sale of the building.
- Ground contact rooms that were not tested because they were not occupied, should be tested if they become occupied in the future.

In addition, retesting should be conducted when any of the following circumstances occur:

- A new addition is constructed, or a significant renovation occurs
- Heating or cooling systems are significantly altered, resulting in changes to air pressures or distribution.
- Ventilation is significantly altered by extensive weatherization, changes to mechanical systems, or comparable procedures.
- Significant openings to soil occur due to:
  - Ground water or slab surface water control systems (e.g., sumps, perimeter drain tile, shower/tub retrofits, etc.)
  - Natural settlement causing major cracks to develop
  - Earthquakes, construction blasting, or formation of sink holes nearby
  - A mitigation system is altered, modified, or repaired
- Rooms should be retested during the winter heating season (i.e., under "closed" conditions) which is typically "worst case" conditions.

Per Minnesota Statutes, section 123B.571, school districts are required to report radon test results at a school board meeting and report results to the MDH. IEA is able to assist with presenting results to the school board, and the MDH reporting. The MDH 'School Radon Testing Form' is located in Appendix E.

For more information regarding radon, see the EPA's A Citizen's Guide to Radon at <a href="http://www.epa.gov/radon">http://www.epa.gov/radon</a>. MDH can be contacted at <a href="health.indoorair@state.mn.us">health.indoorair@state.mn.us</a> or 651-201-4601.

#### **GENERAL COMMENTS**

The analysis and opinions expressed in this report are based upon data obtained from radon sampling district-wide and are representative of the locations and time period sampled. This report does not reflect variations in conditions that may occur across the site, property, or facility. Actual conditions may vary and may not become evident without further assessment.

The report is prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted environmental, health and safety practices. Other than as provided in the preceding sentence and in our Proposal #11464 dated July 12, 2023, regarding radon sampling services at the district locations, including the General Conditions attached thereto, no warranties are extended or made.

Should you require additional radon testing or have any questions regarding radon or any other environmental, health, or safety-related concerns, please do not hesitate to contact our office.

Sincerely,

IEA, Inc.

Jack Skluzacek

**EHS Account Manager** 

JS/khb 01312024

Enc.

Reviewed by:

Emma Squires-Sperling Laboratory Director

# **Appendix A**

Analysis Methodology and Quality Control Measurements

#### **Analysis Methodology**

IEA placed Air Chek, Inc. Pro Chek activated charcoal radon test kits designed specifically for the detection of gamma emissions caused by the decay of Radon-222 and its daughter products. The kit is made of a padded envelope which contains activated charcoal. Upon pick-up, the kit is sealed with vinyl tape after 72 to 96 hours of indoor exposure. Individual kits are uniquely identified with a number and corresponding bar code.

Upon receipt at the analytical laboratory, the kits are logged in using the unique numbers assigned to each kit. The kits are placed on a gamma detector to count the gamma emissions from the decay of radon adsorbed by the charcoal. A calibration factor determined in part by the exposure time and decay time is used to calculate the radon concentration. A correction factor is also applied for weight gain from any moisture absorbed by the charcoal during the sampling period.

Any unusual conditions are noted on the processing form and shown on the exposure report.

#### MDH and ANSI/AARST MA-MFLB 2023 Quality Control Measurements

IEA followed ANSI/AARST MA-MFLB 2023 and MDH recommendations for quality assurance measurements to ensure the accuracy of test results. Quality assurance measurements include side-by-side test kits (duplicates) and unexposed control test kits (blanks).

Duplicates are pairs of test kits placed 4-8 inches apart for the same test period. Duplicates are stored, placed, retrieved, and shipped to the laboratory for analysis in the same manner as the other test kits so that the laboratory cannot distinguish them. Since duplicates are placed side-by-side, the measured values for radon should be the same. The average of all duplicates' relative percent difference (RPD) should not exceed 25%. If they do, an investigation to identify the cause may be warranted and could include repeating the measurements. Duplicate averages are listed in Table 1 below.

Table 1: Duplicat	Table 1: Duplicate Device Measurements and Averages						
Location	Test 1 (pCi/L)	Test 2 (pCi/L)	Average (pCi/L)				
D100	0.5	0.8	0.65				
100B	0.6	< 0.3	0.45				
127	0.7	0.6	0.65				
600	0.6	< 0.3	0.45				
601	0.7	< 0.3*	0.5				
602	< 0.3	0.6	0.45				
603	1.2	0.8	1				
AVID Coordinator Office	0.6	0.6	0.6				
Health Office	0.7	< 0.3	0.5				
Kitchen	0.6	< 0.3	0.45				
Principal Office	0.8	0.6	0.7				
Registrar Office	< 0.3	< 0.3	0.3				
Special Services Office	0.7	0.7	0.7				
Staff Lounge	0.7	< 0.3	0.5				
Custodial Office	2.7	3.5	3.1				
L-25	1.1	1.2	1.15				
L-23	1.1	0.9	1				
D101	1.5	1.5	1.5				
D105	1	1.1	1.05				
D109	3.4	2.8	3.1				
403	0.6	< 0.3	0.45				
L-26 Office	1.2	0.9	1.05				
401	1	0.7	0.85				
401C	< 0.3	0.5	0.4				
District Office Conference  * Location was misnamed upon places	0.8	< 0.3	0.55				

<sup>\*</sup> Location was misnamed upon placement, see D600-2 on results for comparison (9:32 a.m. placement time)

Blanks can be used to determine whether the manufacturing, shipping, storage, or processing of the detector has "contaminated" your measurements. Blanks are opened and immediately re-sealed to keep room air from infiltrating the test kit. Blanks are labeled and shipped in the same manner as the exposed test kits so that the laboratory cannot distinguish them. Since blanks are not exposed to radon, their measurement value should be below the lower limit of detection. Field blanks are listed in the laboratory report as FCustodial A, FCustodial B; or as FL-18A, FL-18B etc. Office blanks are listed in the laboratory report as OIEA Office A, OIEA Office B, etc. Lab-Transit Blanks are listed in Table 2 below.

			Table 2:	Blanks		
Date	Start Time	End Time	Device ID	Type of Blank	Description	Radon Concentration (pCi/L)
1/2/2024	10:00 a.m.	11:00 a.m.	11381038	Field	FCUSTODIAL A	< 0.3
1/2/2024	10:00 a.m.	11:00 a.m.	11381045	Field	FCUSTODIAL B	< 0.3
1/2/2024	10:00 a.m.	11:00 a.m.	11381046	Field	FCUSTODIAL C	< 0.3
1/2/2024	1:00 p.m.	1:00 p.m.	11610314	Field	FL-18 A	< 0.3
1/2/2024	1:00 p.m.	1:00 p.m.	11610321	Field	FL-18 B	< 0.3
1/2/2024	1:00 p.m.	1:00 p.m.	11610322	Field	FL-18 C	< 0.3
1/2/2024	2:00 pm	2:00 pm	11610330	Office	OIEA OFFICE A	< 0.3
1/2/2024	2:00 pm	2:00 pm	11610353	Office	OIEA OFFICE B	< 0.3
1/2/2024	2:00 pm	2:00 pm	11610346	Office	OIEA OFFICE C	< 0.3
1/2/2024	2:00 pm	2:00 pm	11610345	Office	OIEA OFFICE A	< 0.3
1/2/2024	2:00 pm	2:00 pm	11610338	Office	OIEA OFFICE B	< 0.3
1/2/2024	2:00 pm	2:00 pm	11610337	Office	OIEA OFFICE C	< 0.3
10/6/2023	2:00 pm	2:00 pm	11610507	Lab-Transit	LTBP-1	<0.3
11/10/2023	9:00 AM	9:00 AM	11620313	Lab-Transit	LTBP-2	< 0.3
12/1/2023	8:19 AM	8:19 AM	11610519	Lab-Transit	LTBP-3	<0.3
12/5/2023	1:00 PM	1:00 PM	11376311	Lab-Transit	LTBP-4	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376312	Lab-Transit	LTBP-5	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376313	Lab-Transit	LTBP-6	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376314	Lab-Transit	LTBP-7	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376315	Lab-Transit	LTBP-8	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376316	Lab-Transit	LTBP-9	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376317	Lab-Transit	LTBP-10	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376318	Lab-Transit	LTBP-11	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376319	Lab-Transit	LTBP-12	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376320	Lab-Transit	LTBP-13	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376321	Lab-Transit	LTBP-14	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376322	Lab-Transit	LTBP-15	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376323	Lab-Transit	LTBP-16	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376324	Lab-Transit	LTBP-17	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376325	Lab-Transit	LTBP-18	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376326	Lab-Transit	LTBP-19	< 0.3

			Table 2:	Blanks		
Date	Start Time	End Time	Device ID	Type of Blank	Description	Radon Concentration (pCi/L)
12/5/2023	1:00 PM	1:00 PM	11376327	Lab-Transit	LTBP-20	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376328	Lab-Transit	LTBP-21	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376329	Lab-Transit	LTBP-22	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376330	Lab-Transit	LTBP-23	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376331	Lab-Transit	LTBP-24	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376332	Lab-Transit	LTBP-25	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376333	Lab-Transit	LTBP-26	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376334	Lab-Transit	LTBP-27	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376335	Lab-Transit	LTBP-28	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376336	Lab-Transit	LTBP-29	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376337	Lab-Transit	LTBP-30	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376338	Lab-Transit	LTBP-31	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376339	Lab-Transit	LTBP-32	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376340	Lab-Transit	LTBP-33	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376341	Lab-Transit	LTBP-34	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376342	Lab-Transit	LTBP-35	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376343	Lab-Transit	LTBP-36	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376344	Lab-Transit	LTBP-37	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376345	Lab-Transit	LTBP-38	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376346	Lab-Transit	LTBP-39	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376347	Lab-Transit	LTBP-40	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376348	Lab-Transit	LTBP-41	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376349	Lab-Transit	LTBP-42	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376350	Lab-Transit	LTBP-43	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376351	Lab-Transit	LTBP-44	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376352	Lab-Transit	LTBP-45	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376353	Lab-Transit	LTBP-46	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376354	Lab-Transit	LTBP-47	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376355	Lab-Transit	LTBP-48	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376356	Lab-Transit	LTBP-49	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376357	Lab-Transit	LTBP-50	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376358	Lab-Transit	LTBP-51	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376359	Lab-Transit	LTBP-52	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376360	Lab-Transit	LTBP-53	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376361	Lab-Transit	LTBP-54	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376362	Lab-Transit	LTBP-55	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376363	Lab-Transit	LTBP-56	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376364	Lab-Transit	LTBP-57	< 0.3

			Table 2:	Blanks		
Date	Start Time	End Time	Device ID	Type of Blank	Description	Radon Concentration (pCi/L)
12/5/2023	1:00 PM	1:00 PM	11376365	Lab-Transit	LTBP-58	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376366	Lab-Transit	LTBP-59	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376367	Lab-Transit	LTBP-60	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376368	Lab-Transit	LTBP-61	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376369	Lab-Transit	LTBP-62	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376370	Lab-Transit	LTBP-63	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376371	Lab-Transit	LTBP-64	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376372	Lab-Transit	LTBP-65	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376373	Lab-Transit	LTBP-66	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376374	Lab-Transit	LTBP-67	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376375	Lab-Transit	LTBP-68	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376376	Lab-Transit	LTBP-69	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376377	Lab-Transit	LTBP-70	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376378	Lab-Transit	LTBP-71	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376379	Lab-Transit	LTBP-72	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376380	Lab-Transit	LTBP-73	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376381	Lab-Transit	LTBP-74	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376382	Lab-Transit	LTBP-75	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376383	Lab-Transit	LTBP-76	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376384	Lab-Transit	LTBP-77	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376385	Lab-Transit	LTBP-78	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376386	Lab-Transit	LTBP-79	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376387	Lab-Transit	LTBP-80	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376388	Lab-Transit	LTBP-81	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376389	Lab-Transit	LTBP-82	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376390	Lab-Transit	LTBP-83	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376391	Lab-Transit	LTBP-84	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376392	Lab-Transit	LTBP-85	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376393	Lab-Transit	LTBP-86	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376394	Lab-Transit	LTBP-87	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376395	Lab-Transit	LTBP-88	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376396	Lab-Transit	LTBP-89	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376397	Lab-Transit	LTBP-90	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376398	Lab-Transit	LTBP-91	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376399	Lab-Transit	LTBP-92	< 0.3
12/5/2023	1:00 PM	1:00 PM	11376400	Lab-Transit	LTBP-93	< 0.3
1/5/2024	9:00 am	9:00 am	11376304	Lab-Transit	LTB, STORAGE ROOM A	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460901	Lab-Transit	LTBP-30	< 0.3

			Table 2:	Blanks		
Date	Start Time	End Time	Device ID	Type of Blank	Description	Radon Concentration (pCi/L)
1/6/2024	12:00 pm	12:00 pm	11460902	Lab-Transit	LTBP-21	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460903	Lab-Transit	LTBP-13	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460904	Lab-Transit	LTBP-14	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460905	Lab-Transit	LTBP-29	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460906	Lab-Transit	LTBP-12	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460907	Lab-Transit	LTBP-23	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460908	Lab-Transit	LTBP-24	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460909	Lab-Transit	LTBP-18	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460910	Lab-Transit	LTBP-19	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460911	Lab-Transit	LTBP-20	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460912	Lab-Transit	LTBP-25	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460913	Lab-Transit	LTBP-26	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460914	Lab-Transit	LTBP-27	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460915	Lab-Transit	LTBP-17	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460916	Lab-Transit	LTBP-10	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460917	Lab-Transit	LTBP-16	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460918	Lab-Transit	LTBP-2	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460921	Lab-Transit	LTBP-7	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460922	Lab-Transit	LTBP-11	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460923	Lab-Transit	LTBP-28	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460924	Lab-Transit	LTBP-22	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460925	Lab-Transit	LTBP-15	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460926	Lab-Transit	LTBP-3	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460929	Lab-Transit	LTBP-8	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460930	Lab-Transit	LTBP-9	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460931	Lab-Transit	LTBP-5	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460932	Lab-Transit	LTBP-6	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460933	Lab-Transit	LTBP-4	< 0.3
1/6/2024	12:00 pm	12:00 pm	11460934	Lab-Transit	LTBP-1	< 0.3

Spikes are test kits that have been exposed in a chamber to a known concentration of radon. Using spiked measurements can help evaluate the accuracy of a laboratory analysis and/or how accurately test kits supplied by a laboratory measure radon. Spiked test kits are labeled and shipped in the same manner as the exposed test kits so that the laboratory cannot distinguish them. Spiked results completed for our laboratory are included in the following pages. Spiked test kits are listed in Table 3 below.

	Table 3: Spiked Detectors								
Date	Start Time	End Time	Device ID	Measured Value (pCi/L)	Reference Value (pCi/L)				
1/5/2024	9:00 am	9:00 am	11604839	49.3	49.2				
1/5/2024	9:00 am	9:00 am	11604840	50.3	49.2				
1/5/2024	9:00 am	9:00 am	11604842	41.6	49.2				
1/5/2024	9:00 am	9:00 am	11604843	44.8	49.2				
1/5/2024	9:00 am	9:00 am	11604846	47.0	49.2				
1/5/2024	9:00 am	9:00 am	11604848	51.7	49.2				

# **Appendix B**

Laboratory Reports and Building Maps

Kit#	Room Id	Started	Ended	pCi/L	Analyzeo
11623615	101	2024-01-02 @ 7:00 am	2024-01-05 @ 8:00 am	< 0.3	2024-01-0
11623622	102	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	$0.7 \pm 0.3$	2024-01-0
11608170	113	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	$0.6 \pm 0.3$	2024-01-0
11608169	132	2024-01-02 @ 7:00 am	2024-01-05 @ 8:00 am	< 0.3	2024-01-0
11608172	133	2024-01-02 @ 7:00 am	2024-01-05 @ 8:00 am	$1.1 \pm 0.4$	2024-01-0
11381020	23	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	$0.6 \pm 0.3$	2024-01-0
11381042	24	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	< 0.3	2024-01-0
11623608	300	2024-01-02 @ 7:00 am	2024-01-05 @ 8:00 am	$0.5 \pm 0.3$	2024-01-0
11623614	300 BREAK ROOM EAST	2024-01-02 @ 7:00 am	2024-01-05 @ 8:00 am	$0.7 \pm 0.4$	2024-01-0
11623613	300 BREAK ROOM WEST	2024-01-02 @ 7:00 am	2024-01-05 @ 8:00 am	$0.9 \pm 0.4$	2024-01-0
11623601	300 SENSORY	2024-01-02 @ 7:00 am	2024-01-05 @ 8:00 am	$0.8 \pm 0.3$	2024-01-0
11623605	310	2024-01-02 @ 7:00 am	2024-01-05 @ 8:00 am	$0.6 \pm 0.3$	2024-01-0
11623611	310 OFFICE NORTH	2024-01-02 @ 7:00 am	2024-01-05 @ 8:00 am	$0.6 \pm 0.3$	2024-01-0
11623612	310 OFFICE SOUTH	2024-01-02 @ 7:00 am	2024-01-05 @ 8:00 am	$0.6 \pm 0.3$	2024-01-0
11623604	312	2024-01-02 @ 7:00 am	2024-01-05 @ 8:00 am	$0.6 \pm 0.3$	2024-01-
11623606	312 OFFICE	2024-01-02 @ 7:00 am	2024-01-05 @ 8:00 am	< 0.3	2024-01-
11381024	335	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	$0.6 \pm 0.3$	2024-01-
11381040	336	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	$0.6 \pm 0.3$	2024-01-
11381034	338	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	$0.6 \pm 0.3$	2024-01-
11381032	403	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	$0.7 \pm 0.4$	2024-01-
11381033	411	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	$1.0 \pm 0.3$	2024-01-
11381026	416	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	$0.8 \pm 0.3$	2024-01-
11381031	418	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	$0.8 \pm 0.3$	2024-01-
11623694	423	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	$1.3 \pm 0.4$	2024-01-
1381001	423 OFFICE	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	$1.3 \pm 0.3$	2024-01-
1623696	425	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	$1.2 \pm 0.3$	2024-01-
1623695	425 OFFICE	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	$1.5 \pm 0.3$	2024-01-
1623700	501	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	< 0.3	2024-01-
1623685	502	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	$0.6 \pm 0.3$	2024-01-
1623687	503	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	< 0.3	2024-01-
1623688	504	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	$0.8 \pm 0.3$	2024-01-
1623693	505	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	$1.0 \pm 0.3$	2024-01-
1623686	506	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	$0.6 \pm 0.3$	2024-01-
11623697	507	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	< 0.3	2024-01-
1623699	509		2024-01-05 @ 9:00 am	$0.7 \pm 0.3$	2024-01-
1623698	510		2024-01-05 @ 9:00 am	$0.8 \pm 0.3$	2024-01-
1623692	513		2024-01-05 @ 9:00 am	$0.6 \pm 0.3$	2024-01-

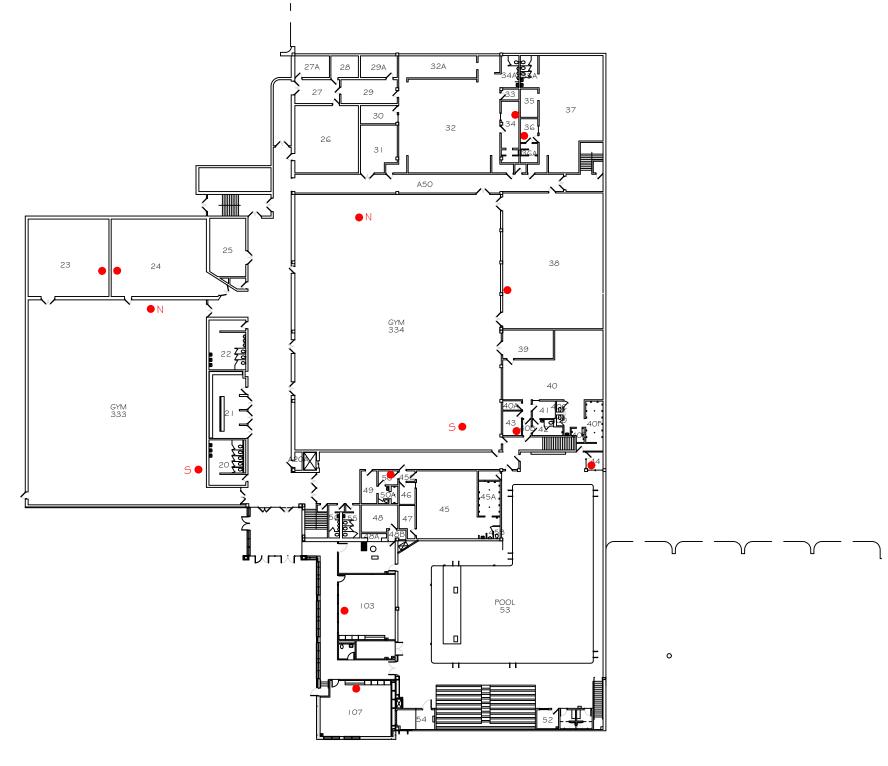
Kit#	Room Id	Started	Ended	pCi/L	Analyzed
11623691	514	2024-01-02 @ 9:00 am	2024-01-05 @ 9:00 am	$0.9 \pm 0.4$	2024-01-09
11623689	515	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$1.0 \pm 0.4$	2024-01-09
11623690	516	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$0.6 \pm 0.3$	2024-01-09
11623684	516 OFFICE	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$0.8 \pm 0.3$	2024-01-09
11623678	519	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$1.1 \pm 0.3$	2024-01-09
11623680	520	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$1.1 \pm 0.3$	2024-01-09
11623679	521	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$0.9 \pm 0.3$	2024-01-09
11623672	522	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$0.8 \pm 0.3$	2024-01-09
11623671	523	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	< 0.3	2024-01-09
11623669	626	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$1.1 \pm 0.3$	2024-01-09
11623657	627	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$0.8 \pm 0.3$	2024-01-09
11623673	628	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$0.9 \pm 0.3$	2024-01-09
11623656	629	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$0.7 \pm 0.4$	2024-01-09
11623623	701	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	$0.6 \pm 0.3$	2024-01-09
11623629	702	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	$0.8 \pm 0.3$	2024-01-09
11623636	702 OFFICE	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	$0.7 \pm 0.3$	2024-01-09
11623624	704	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	< 0.3	2024-01-09
11623630	704 OFFICE	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$0.6 \pm 0.3$	2024-01-09
11623649	710	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	$0.9 \pm 0.3$	2024-01-09
11623644	711	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	$0.7 \pm 0.3$	2024-01-09
11623643	714	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	$0.7 \pm 0.3$	2024-01-09
11623635	715	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	$0.6 \pm 0.3$	2024-01-09
11623642	716	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	$0.6 \pm 0.4$	2024-01-09
11623641	717	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	$0.7 \pm 0.3$	2024-01-09
11623637	718	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	$0.5 \pm 0.3$	2024-01-09
11623650	719	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$0.5 \pm 0.4$	2024-01-09
11623651	721	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$0.5 \pm 0.3$	2024-01-09
11623652	722	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	< 0.3	2024-01-09
11623647	723	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$0.8 \pm 0.3$	2024-01-09
11623640	724	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$0.9 \pm 0.4$	2024-01-09
11623668	801	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$1.3 \pm 0.4$	2024-01-09
11623648	802	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$1.2 \pm 0.4$	2024-01-09
11623662	809	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$0.7 \pm 0.4$	2024-01-09
11623665	809-810	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$0.7 \pm 0.3$	2024-01-09
11623674	810	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$0.7 \pm 0.3$	2024-01-09
11623675	814	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	< 0.3	2024-01-09
11623670	814-816	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	< 0.3	2024-01-09

11623655 815 2024-01-02 @ 8:00 am 2024-01-05 @ 9:00 am 0.7 ± 0.3 2024-11623682 900 2024-01-02 @ 8:00 am 2024-01-05 @ 9:00 am 0.7 ± 0.3 2024-11623683 901 2024-01-02 @ 8:00 am 2024-01-05 @ 9:00 am 0.6 ± 0.3 2024-11623677 902 2024-01-02 @ 8:00 am 2024-01-05 @ 9:00 am 0.7 ± 0.3 2024-11623676 903 2024-01-02 @ 8:00 am 2024-01-05 @ 9:00 am 0.7 ± 0.3 2024-11623664 904 2024-01-02 @ 8:00 am 2024-01-05 @ 9:00 am < 0.7 ± 0.3 2024-11623663 905 2024-01-02 @ 8:00 am 2024-01-05 @ 9:00 am < 0.3 2024-11623661 ADMINISTRATIVE ASSISTANT OFFICE 2024-01-02 @ 8:00 am 2024-01-05 @ 9:00 am < 0.3 2024-11381021 CAFETERIA NORTH 2024-01-02 @ 8:00 am 2024-01-05 @ 8:00 am 0.8 ± 0.3 2024-1138109 CAFETERIA SOUTH 2024-01-02 @ 9:00 am 2024-01-05 @ 10:00 am < 0.3 2024-11623634 COPY ROOM 2024-01-02 @ 8:00 am 2024-01-05 @ 10:00 am < 0.3 2024-11381039 CUSTODIAL OFFICE 2024-01-02 @ 9:00 am 2024-01-05 @ 8:00 am 0.5 ± 0.3 2024-11381052 D100-2 2024-01-02 @ 9:00 am 2024-01-05 @ 8:00 am 0.5 ± 0.3 2024-11381052 D100-2 2024-01-02 @ 9:00 am 2024-01-05 @ 8:00 am 0.5 ± 0.3 2024-11381052 D100-2 2024-01-02 @ 10:00 am 2024-01-05 @ 8:00 am 0.5 ± 0.3 2024-11381019 D100B-2 2024-01-02 @ 10:00 am 2024-01-05 @ 8:00 am 0.6 ± 0.3 2024-11381019 D100B-2 2024-01-02 @ 10:00 am 2024-01-05 @ 8:00 am 0.6 ± 0.3 2024-11381019 D100B-2 2024-01-02 @ 10:00 am 2024-01-05 @ 8:00 am 0.6 ± 0.3 2024-11381019 D100B-2 2024-01-02 @ 10:00 am 2024-01-05 @ 8:00 am 0.6 ± 0.3 2024-11381019 D100B-2 2024-01-02 @ 10:00 am 2024-01-05 @ 8:00 am 0.6 ± 0.3 2024-11381019 D100B-2 2024-01-02 @ 10:00 am 2024-01-05 @ 8:00 am 0.6 ± 0.3 2024-11381019 D100B-2 2024-01-02 @ 10:00 am 2024-01-05 @ 8:00 am 0.6 ± 0.3 2024-11381019 D100B-2 2024-01-02 @ 10:00 am 2024-01-05 @ 8:00 am 0.6 ± 0.3 2024-11381019 D100B-2 2024-01-02 @ 10:00 am 2024-01-05 @ 8:00 am 0.6 ± 0.3 2024-11381019 D100B-2 2024-01-02 @ 8:00 am 2024-01-05 @ 8:00 am 0.6 ± 0.3 2024-11381019 D100B-2 2024-01-02 @ 8:00 am 2024-01-05 @ 8:00 am 0.7 ± 0.3 2024-11381019 D100B-2 2024-01-02 @ 8:00 am 2024-01-05 @ 8:00 am 0.7 ± 0.3 2024-11381019 D100B-2 2024-01-02 @ 8	Kit #	Room Id	Started	Ended	pCi/L	
11623682       900       2024-01-02 @ 8:00 am       2024-01-05 @ 9:00 am $0.7 \pm 0.3$ 2024-11623683         11623683       901       2024-01-02 @ 8:00 am       2024-01-05 @ 9:00 am $0.6 \pm 0.3$ 2024-11623677         11623676       903       2024-01-02 @ 8:00 am       2024-01-05 @ 9:00 am $0.7 \pm 0.3$ 2024-11623664         11623663       905       2024-01-02 @ 8:00 am       2024-01-05 @ 9:00 am $< 0.3$ 2024-11623681         11623616       ADMINISTRATIVE ASSISTANT OFFICE       2024-01-02 @ 8:00 am       2024-01-05 @ 9:00 am $< 0.3$ 2024-11381021         11381021       CAFETERIA NORTH       2024-01-02 @ 9:00 am       2024-01-05 @ 10:00 am $< 0.3$ 2024-11381039         11623634       COPY ROOM       2024-01-02 @ 9:00 am       2024-01-05 @ 10:00 am $< 0.3$ 2024-11381039         11623634       COPY ROOM       2024-01-02 @ 9:00 am       2024-01-05 @ 10:00 am $< 0.3$ 2024-11381039         11623634       COPY ROOM       2024-01-02 @ 9:00 am       2024-01-05 @ 10:00 am $< 0.5 \pm 0.3$ 2024-1162867         11381039       CUSTODIAL OFFICE       2024-01-02 @ 9:00 am       2024-01-05 @ 10:00 am $< 0.5 \pm 0.3$ 2024-11608173         11608173       D100-1       2024-01-0						Analyzed
11623683         901         2024-01-02 @ 8:00 am         2024-01-05 @ 9:00 am $0.6 \pm 0.3$ 2024-11623677           11623676         903         2024-01-02 @ 8:00 am         2024-01-05 @ 9:00 am $0.7 \pm 0.3$ 2024-11623664           11623664         904         2024-01-02 @ 8:00 am         2024-01-05 @ 9:00 am $< 0.3$ 2024-11623663           11623663         905         2024-01-02 @ 8:00 am         2024-01-05 @ 9:00 am $< 0.3$ 2024-11623681           11623616         ADMINISTRATIVE ASSISTANT OFFICE         2024-01-02 @ 8:00 am         2024-01-05 @ 9:00 am $< 0.3$ 2024-11381021           11831021         CAFETERIA NORTH         2024-01-02 @ 9:00 am         2024-01-05 @ 10:00 am $< 0.3$ 2024-11381009 $< 0.3$ 2024-11623 @ 10:00 am $< 0.3$ 2024-11623 @ 10:00 am $< 0.3$ 2024-11623 @ 10:00 am $< 0.3$ 2024-1138100 @ 10:00 am $< 0.3$						2024-01-09
11623677         902         2024-01-02 @ 8:00 am         2024-01-05 @ 9:00 am         0.7 ± 0.3         2024-01-02 @ 10:00 am           11623676         903         2024-01-02 @ 8:00 am         2024-01-05 @ 9:00 am         0.7 ± 0.3         2024-01-02 @ 10:00 am           11623664         904         2024-01-02 @ 8:00 am         2024-01-05 @ 9:00 am         < 0.3						2024-01-09
11623676       903       2024-01-02 @ 8:00 am       2024-01-05 @ 9:00 am       0.7 ± 0.3       2024-01-02 @ 10:00 am         11623664       904       2024-01-02 @ 8:00 am       2024-01-05 @ 9:00 am       < 0.3						2024-01-09
11623664       904       2024-01-02 @ 8:00 am       2024-01-05 @ 9:00 am $< 0.3$ 2024-01-02 @ 8:00 am $2024-01-05$ @ 9:00 am $< 0.3$ 2024-01-05 @ 9:00 am $< 0.3$ 2024-01-0						2024-01-09
11623663       905       2024-01-02 @ 8:00 am       2024-01-05 @ 9:00 am       < 0.3						2024-01-09
11623681       A900       2024-01-02 @ 8:00 am       2024-01-05 @ 9:00 am $< 0.3$ 2024-01-01         11623616       ADMINISTRATIVE ASSISTANT OFFICE       2024-01-02 @ 8:00 am       2024-01-05 @ 8:00 am $0.8 \pm 0.3$ 2024-01-01         11381021       CAFETERIA NORTH       2024-01-02 @ 9:00 am       2024-01-05 @ 10:00 am $< 0.3$ 2024-01-03         11381009       CAFETERIA SOUTH       2024-01-02 @ 9:00 am       2024-01-05 @ 10:00 am $< 0.3$ 2024-01-03         11623634       COPY ROOM       2024-01-02 @ 8:00 am       2024-01-05 @ 8:00 am $< 0.3$ 2024-01-03         11381039       CUSTODIAL OFFICE       2024-01-02 @ 9:00 am       2024-01-05 @ 10:00 am $< 0.3$ 2024-01-03         11608173       D100-1       2024-01-02 @ 8:00 am       2024-01-05 @ 8:00 am $< 0.5 \pm 0.3$ 2024-01-03         11381052       D100-2       2024-01-02 @ 10:00 am       2024-01-05 @ 10:00 am $< 0.8 \pm 0.3$ 2024-01-05 @ 10:00 am         11381019       D100B-1       2024-01-02 @ 7:00 am       2024-01-05 @ 8:00 am $< 0.3$ 2024-01-01 @ 2024-01-05 @ 10:00 am $< 0.3$ 2024-01-01 @ 2024-01-05 @ 8:00 am $< 0.3$ 2024-01-05 @ 2024-01-05 @ 8:00 am $< 0.3$ 2024-01-05 @ 2024-01-05 @ 8:00 am $< 0.3$ 2024-01-0						2024-01-09
11623616 ADMINISTRATIVE ASSISTANT OFFICE $2024-01-02$ @ $8:00$ am $2024-01-05$ @ $8:00$ am $0.8 \pm 0.3$ $2024-11381021$ 11381021 CAFETERIA NORTH $2024-01-02$ @ $9:00$ am $2024-01-05$ @ $10:00$ am $< 0.3$ $2024-1138100$ 11381009 CAFETERIA SOUTH $2024-01-02$ @ $9:00$ am $2024-01-05$ @ $10:00$ am $0.6 \pm 0.3$ $2024-11623634$ 11623634 COPY ROOM $2024-01-02$ @ $8:00$ am $2024-01-05$ @ $8:00$ am $< 0.3$ $< 0.3$ 11381039 CUSTODIAL OFFICE $2024-01-02$ @ $9:00$ am $2024-01-05$ @ $10:00$ am $< 0.5 \pm 0.3$ $< 0.24-01-05$ 11608173 D100-1 $2024-01-02$ @ $8:00$ am $2024-01-05$ @ $8:00$ am $< 0.5 \pm 0.3$ $< 0.24-01-05$ 11381052 D100-2 $2024-01-02$ @ $10:00$ am $< 0.24-01-05$ @ $10:00$ am $< 0.8 \pm 0.3$ $< 0.24-01-05$ 11623607 D100B-1 $2024-01-02$ @ $10:00$ am $< 0.24-01-05$ @ $8:00$ am $< 0.3$ $< 0.3$ 11381019 D100B-2 $2024-01-02$ @ $10:00$ am $< 0.3$ $< 0.3$ $< 0.3$ 11608181 D127-1 $< 0.24-01-02$ @ $< 0.00$ am $< 0.24-01-05$ @ $< 0.00$ am $< 0.3$ $< 0.3$						2024-01-09
11381021       CAFETERIA NORTH $2024-01-02 @ 9:00 am$ $2024-01-05 @ 10:00 am$ $< 0.3$ $2024-11-02 @ 9:00 am$ 11381009       CAFETERIA SOUTH $2024-01-02 @ 9:00 am$ $2024-01-05 @ 10:00 am$ $0.6 \pm 0.3$ $2024-11-02 @ 0.00 am$ 11623634       COPY ROOM $2024-01-02 @ 8:00 am$ $2024-01-05 @ 8:00 am$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$ $< 0.3$						2024-01-09
11381009         CAFETERIA SOUTH         2024-01-02 @ 9:00 am         2024-01-05 @ 10:00 am $0.6 \pm 0.3$ 2024-10-100 am $0.6 \pm 0.3$ $0.6 \pm$						2024-01-09
11623634         COPY ROOM         2024-01-02 @ 8:00 am         2024-01-05 @ 8:00 am         < 0.3         2024-01-01           11381039         CUSTODIAL OFFICE         2024-01-02 @ 9:00 am         2024-01-05 @ 10:00 am         0.5 $\pm$ 0.3         2024-01-01           11608173         D100-1         2024-01-02 @ 8:00 am         2024-01-05 @ 8:00 am         0.5 $\pm$ 0.3         2024-01-01           11381052         D100-2         2024-01-02 @ 10:00 am         2024-01-05 @ 10:00 am         0.8 $\pm$ 0.3         2024-01-01           11623607         D100B-1         2024-01-02 @ 7:00 am         2024-01-05 @ 8:00 am         0.6 $\pm$ 0.3         2024-01-01           11381019         D100B-2         2024-01-02 @ 10:00 am         2024-01-05 @ 10:00 am         < 0.3						2024-01-09
11381039       CUSTODIAL OFFICE       2024-01-02 @ 9:00 am       2024-01-05 @ 10:00 am $0.5 \pm 0.3$ 2024-10:00 am         11608173       D100-1       2024-01-02 @ 8:00 am       2024-01-05 @ 8:00 am $0.5 \pm 0.3$ 2024-11:00 am         11381052       D100-2       2024-01-02 @ 10:00 am       2024-01-05 @ 10:00 am $0.8 \pm 0.3$ 2024-11:00 am         11623607       D100B-1       2024-01-02 @ 7:00 am       2024-01-05 @ 8:00 am $0.6 \pm 0.3$ 2024-11:00 am         11381019       D100B-2       2024-01-02 @ 10:00 am       2024-01-05 @ 10:00 am $< 0.3$ 2024-11:00 am         11608181       D127-1       2024-01-02 @ 8:00 am       2024-01-05 @ 8:00 am $0.7 \pm 0.3$ 2024-01-05 @ 8:00 am						2024-01-09
$\begin{array}{cccccccccccccccccccccccccccccccccccc$						2024-01-09
$\begin{array}{cccccccccccccccccccccccccccccccccccc$						2024-01-09
11623607       D100B-1       2024-01-02 @ 7:00 am       2024-01-05 @ 8:00 am       0.6 ± 0.3       2024-01-01         11381019       D100B-2       2024-01-02 @ 10:00 am       2024-01-05 @ 10:00 am       < 0.3						2024-01-09
11381019 D100B-2 2024-01-02 @ 10:00 am 2024-01-05 @ 10:00 am < 0.3 2024-11608181 D127-1 2024-01-02 @ 8:00 am 2024-01-05 @ 8:00 am 0.7 ± 0.3 2024-11608181						2024-01-09
11608181 D127-1 2024-01-02 @ 8:00 am 2024-01-05 @ 8:00 am 0.7 ± 0.3 2024-01-05						2024-01-09
						2024-01-09
11381048 D127-2 2024-01-02 @ 10:00 am $2024$ -01-05 @ 10:00 am $0.6 \pm 0.4$ 2024-						2024-01-09
						2024-01-09
						2024-01-09
						2024-01-09
						2024-01-09
						2024-01-09
	11381022				< 0.3	2024-01-09
	11381014				$0.6 \pm 0.3$	2024-01-09
	11381013				$1.2 \pm 0.3$	2024-01-09
					$0.8 \pm 0.3$	2024-01-09
	11608174	DAVID COORDINATOR OFFICE -1			$0.6 \pm 0.3$	2024-01-09
11381029 DAVID COORDINATOR OFFICE -2 2024-01-02 @ 10:00 am $2024$ -01-05 @ 10:00 am $0.6 \pm 0.3$ 2024-01-05	11381029	DAVID COORDINATOR OFFICE -2	2024-01-02 @ 10:00 am	2024-01-05 @ 10:00 am	$0.6 \pm 0.3$	2024-01-09
11381053 DHEALTH OFFICE -2 2024-01-02 @ 10:00 am 2024-01-05 @ 10:00 am < 0.3 2024-	11381053	DHEALTH OFFICE -2	2024-01-02 @ 10:00 am	2024-01-05 @ 10:00 am	< 0.3	2024-01-09
11608178 DHEALTH SERVICES -1 2024-01-02 @ $8:00 \text{ am}$ 2024-01-05 @ $8:00 \text{ am}$ 0.7 ± 0.3 2024-	11608178	DHEALTH SERVICES -1	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	$0.7 \pm 0.3$	2024-01-09
11381028 DKITCHEN -1 2024-01-02 @ 10:00 am 2024-01-05 @ 11:00 am $0.6 \pm 0.4$ 2024-	11381028	DKITCHEN -1	2024-01-02 @ 10:00 am	2024-01-05 @ 11:00 am	$0.6 \pm 0.4$	2024-01-09
11381055 DKITCHEN-2 2024-01-02 @ 10:00 am 2024-01-05 @ 11:00 am < 0.3 2024-01-05	11381055	DKITCHEN-2	2024-01-02 @ 10:00 am	2024-01-05 @ 11:00 am	< 0.3	2024-01-09
11623610 DPRINCIPAL OFFICE -1 2024-01-02 @ $8:00 \text{ am}$ 2024-01-05 @ $8:00 \text{ am}$ 0.8 $\pm$ 0.3 2024-01-05	11623610	<b>DPRINCIPAL OFFICE -1</b>	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	$0.8 \pm 0.3$	2024-01-09
11381044 DPRINCIPAL OFFICE -2 2024-01-02 @ 10:00 am 2024-01-05 @ 10:00 am 0.6 ± 0.4 2024-	11381044	<b>DPRINCIPAL OFFICE -2</b>	2024-01-02 @ 10:00 am	2024-01-05 @ 10:00 am	$0.6 \pm 0.4$	2024-01-09
11623602 DREGISTRAR OFFICE -1 2024-01-02 @ 8:00 am 2024-01-05 @ 8:00 am < 0.3 2024-01-05	11623602	DREGISTRAR OFFICE -1	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	< 0.3	2024-01-09
11381047 DREGISTRAR OFFICE -2 2024-01-02 @ 10:00 am 2024-01-05 @ 10:00 am < 0.3 2024-	11381047	DREGISTRAR OFFICE -2	2024-01-02 @ 10:00 am	2024-01-05 @ 10:00 am	< 0.3	2024-01-09

Kit#	Room Id	Started	Ended	pCi/L	Analyzed
11608175	DSPECIAL SERVICES OFFICE -1	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	$0.7 \pm 0.4$	2024-01-09
11381043	DSPECIAL SERVICES OFFICE -2	2024-01-02 @ 10:00 am	2024-01-05 @ 10:00 am	$0.7 \pm 0.3$	2024-01-09
11608176	DSTAFF LOUNGE -1	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	$0.7 \pm 0.3$	2024-01-09
11381054	<b>DSTAFF LOUNGE -2</b>	2024-01-02 @ 10:00 am	2024-01-05 @ 10:00 am	< 0.3	2024-01-09
11381038	FCUSTODIAL A	2024-01-02 @ 10:00 am	2024-01-05 @ 11:00 am	< 0.3	2024-01-09
11381045	FCUSTODIAL B	2024-01-02 @ 10:00 am	2024-01-05 @ 11:00 am	< 0.3	2024-01-09
11381046	FCUSTODIAL C	2024-01-02 @ 10:00 am	2024-01-05 @ 11:00 am	< 0.3	2024-01-09
11381005	GYM 1 NORTH	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	< 0.3	2024-01-09
11381006	GYM 1 SOUTH	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	< 0.3	2024-01-09
11381012	GYM 2 EAST	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	$0.6 \pm 0.3$	2024-01-09
11381041	GYM 2 NORTH	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	< 0.3	2024-01-09
11381015	H150	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	< 0.3	2024-01-09
11381016	H151	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	$0.8 \pm 0.3$	2024-01-09
11608180	HEALTH SERVICES OFFICE	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	< 0.3	2024-01-09
11623620	HOLMES OFFICE	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	< 0.3	2024-01-09
11623625	HOLTE OFFICE	2024-01-02 @ 8:00 am	2024-01-05 @ 10:00 am	< 0.3	2024-01-09
11623626	KAMPHENKEL OFFICE	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	< 0.3	2024-01-09
11608171	KITCHEN LOUNGE	2024-01-02 @ 7:00 am	2024-01-05 @ 7:00 am	< 0.3	2024-01-09
11623603	KITCHEN OFFICE	2024-01-02 @ 7:00 am	2024-01-05 @ 7:00 am	$0.7 \pm 0.3$	2024-01-09
11623627	KOLBINGER OFFICE	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	$0.6 \pm 0.3$	2024-01-09
11623618	KRUEGER OFFICE	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	< 0.3	2024-01-09
11623666	M100	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$0.5 \pm 0.4$	2024-01-09
11623654	M101	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$0.6 \pm 0.3$	2024-01-09
11623660	M102	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	< 0.3	2024-01-09
11623661	M103	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$0.7 \pm 0.3$	2024-01-09
11623639	M106	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$1.0 \pm 0.3$	2024-01-09
11623633	M108	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$0.9 \pm 0.4$	2024-01-09
11623667	M109	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	< 0.3	2024-01-09
11623658	M116	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	< 0.3	2024-01-09
11623645	M118	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$0.6 \pm 0.3$	2024-01-09
11623632	M121	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$1.0 \pm 0.4$	2024-01-09
11623653	M122	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$0.9 \pm 0.3$	2024-01-09
11623646	M123	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	< 0.3	2024-01-09
11623638	M124	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$0.5 \pm 0.3$	2024-01-09
11623619	MAHLER OFFICE	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	< 0.3	2024-01-09
11623628	MAIL ROOM	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	$1.0 \pm 0.3$	2024-01-09
11623659	MEDIA CENTER EAST	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$0.6 \pm 0.3$	2024-01-09

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11623631	MEDIA CENTER WEST	2024-01-02 @ 8:00 am	2024-01-05 @ 9:00 am	$0.5 \pm 0.3$	2024-01-09
11381011	MEN'S LOCKER ROOM OFFICE	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	< 0.3	2024-01-09
11381010	MEN'S POOL LOCKER ROOM OFFICE	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	$1.0 \pm 0.4$	2024-01-09
11610330	OIEA OFFICE A	2024-01-02 @ 2:00 pm	2024-01-05 @ 2:00 pm	< 0.3	2024-01-09
11610353	OIEA OFFICE B	2024-01-02 @ 2:00 pm	2024-01-05 @ 2:00 pm	< 0.3	2024-01-09
11610346	OIEA OFFICE C	2024-01-02 @ 2:00 pm	2024-01-05 @ 2:00 pm	< 0.3	2024-01-09
11381017	POOL OFFICE	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	$0.9 \pm 0.3$	2024-01-09
11608177	RECEPTION	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	$0.8 \pm 0.3$	2024-01-09
11623617	SPEECH THERAPY OFFICE	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	$0.8 \pm 0.3$	2024-01-09
11623609	STUDENT SUPPORT OFFICE	2024-01-02 @ 8:00 am	2024-01-05 @ 10:00 am	$0.5 \pm 0.3$	2024-01-09
11623621	THALACKER OFFICE	2024-01-02 @ 8:00 am	2024-01-05 @ 8:00 am	< 0.3	2024-01-09
11381004	WOMEN'S LOCKER ROOM OFFICE	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	< 0.3	2024-01-09
11381018	WOMEN'S POOL LOCKER ROOM OFFICE	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	$1.4 \pm 0.4$	2024-01-09
11381003	WRESTLING ROOM	2024-01-02 @ 9:00 am	2024-01-05 @ 10:00 am	$0.7 \pm 0.3$	2024-01-09



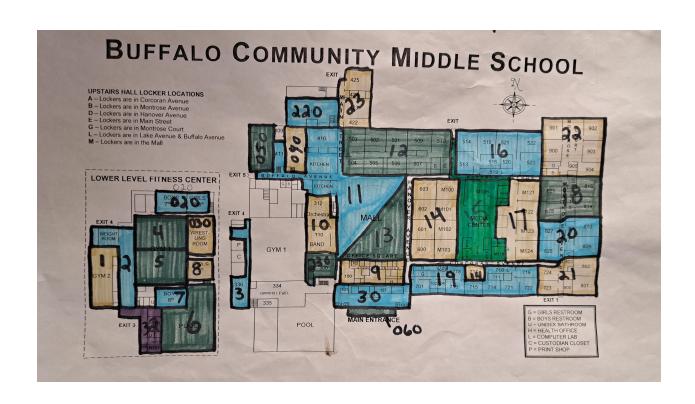












## Radon test result report for: BUFFALO HANOVER MONTROSE SCHOOLS **DISCOVERY ELEMENTARY**

Kit#	Room Id	Started	Ended	pCi/L	Analyzed
11610365	102B	2024-01-02 @ 1:00 pm	2024-01-05 @ 1:00 pm	$1.5 \pm 0.4$	2024-01-09
11610324	104	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$1.0 \pm 0.3$	2024-01-09
11610349	104A	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$0.7 \pm 0.3$	2024-01-09
11610340	104B	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$0.9 \pm 0.3$	2024-01-09
11610355	104C	2024-01-02 @ 1:00 pm	2024-01-05 @ 1:00 pm	$1.0 \pm 0.3$	2024-01-09
11610331	104D	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$1.1 \pm 0.3$	2024-01-09
11610307	104E	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$0.6 \pm 0.3$	2024-01-09
11610341	104F	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$0.7 \pm 0.3$	2024-01-09
11610325	106	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	< 0.3	2024-01-09
11610326	106B	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$1.1 \pm 0.3$	2024-01-09
11610320	106C	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	< 0.3	2024-01-09
11610333	106D	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$0.5 \pm 0.3$	2024-01-09
11610308	307	2024-01-02 @ 12:00 pm	2024-01-05 @ 12:00 pm	$0.9 \pm 0.3$	2024-01-09
11610317	307C	2024-01-02 @ 12:00 pm	2024-01-05 @ 12:00 pm	$1.0 \pm 0.3$	2024-01-09
11610323	401-1	2024-01-02 @ 1:00 pm	2024-01-05 @ 1:00 pm	$0.7 \pm 0.3$	2024-01-09
11610306	401A	2024-01-02 @ 1:00 pm	2024-01-05 @ 1:00 pm	$0.8 \pm 0.3$	2024-01-09
11610351	401B	2024-01-02 @ 1:00 pm	2024-01-05 @ 1:00 pm	$0.5 \pm 0.3$	2024-01-09
11610357	401C-1	2024-01-02 @ 1:00 pm	2024-01-05 @ 1:00 pm	< 0.3	2024-01-09
11610332	401E	2024-01-02 @ 1:00 pm	2024-01-05 @ 1:00 pm	$0.5 \pm 0.3$	2024-01-09
11610358	402	2024-01-02 @ 1:00 pm	2024-01-05 @ 1:00 pm	$0.6 \pm 0.3$	2024-01-09
11381059	403-1	2024-01-02 @ 12:00 pm	2024-01-05 @ 12:00 pm	$0.6 \pm 0.4$	2024-01-09
11381088	403A	2024-01-02 @ 12:00 pm	2024-01-05 @ 12:00 pm	< 0.3	2024-01-09
11381095	403B	2024-01-02 @ 12:00 pm	2024-01-05 @ 12:00 pm	< 0.3	2024-01-09
11381087	404	2024-01-02 @ 12:00 pm	2024-01-05 @ 12:00 pm	< 0.3	2024-01-09
11381080	404A	2024-01-02 @ 12:00 pm	2024-01-05 @ 12:00 pm	< 0.3	2024-01-09
11381072	405	2024-01-02 @ 12:00 pm	2024-01-05 @ 12:00 pm	< 0.3	2024-01-09
11381071	405B	2024-01-02 @ 12:00 pm	2024-01-05 @ 12:00 pm	$0.6 \pm 0.3$	2024-01-09
11381064	405C	2024-01-02 @ 12:00 pm	2024-01-05 @ 12:00 pm	$0.7 \pm 0.3$	2024-01-09
11381035	602	2024-01-02 @ 12:00 pm	2024-01-05 @ 12:00 pm	$3.2 \pm 0.4$	2024-01-09
11381058	AUDITORIUM EAST	2024-01-02 @ 12:00 pm	2024-01-05 @ 12:00 pm	$1.2 \pm 0.4$	2024-01-09
11381057	AUDITORIUM WEST	2024-01-02 @ 12:00 pm	2024-01-05 @ 12:00 pm	$1.3 \pm 0.4$	2024-01-09
11381049	CAFETERIA EAST	2024-01-02 @ 12:00 pm	2024-01-05 @ 12:00 pm	$1.3 \pm 0.4$	2024-01-09
11381061	CAFETERIA NORTH	2024-01-02 @ 12:00 pm	2024-01-05 @ 12:00 pm	$0.8 \pm 0.4$	2024-01-09
11610319	CONFERENCE ROOM	2024-01-02 @ 12:00 pm	2024-01-05 @ 12:00 pm	$1.5 \pm 0.3$	2024-01-09
11610303	D100	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	< 0.3	2024-01-09
11381036	D101-1	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$1.5 \pm 0.4$	2024-01-09
11381037	D102	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$2.2 \pm 0.4$	2024-01-09

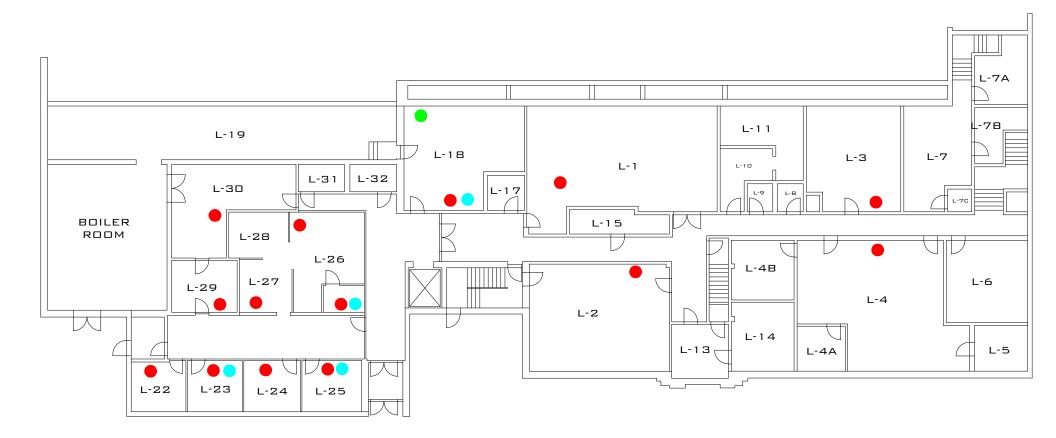
## Radon test result report for: BUFFALO HANOVER MONTROSE SCHOOLS DISCOVERY ELEMENTARY

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11381077	D103	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$1.5 \pm 0.4$	2024-01-09
11381030	D104	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$1.1 \pm 0.4$	2024-01-09
11381093	D105-1	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$1.0 \pm 0.3$	2024-01-09
11381070	D106	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$0.8 \pm 0.4$	2024-01-09
11610311	D108	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$1.5 \pm 0.3$	2024-01-09
11610316	D109-1	2024-01-02 @ 12:00 pm	2024-01-05 @ 12:00 pm	$3.4 \pm 0.4$	2024-01-09
11381085	D110	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$0.8 \pm 0.3$	2024-01-09
11381086	D112	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$0.6 \pm 0.4$	2024-01-09
11610344	D113B	2024-01-02 @ 1:00 pm	2024-01-05 @ 1:00 pm	$0.9 \pm 0.3$	2024-01-09
11610350	D113C	2024-01-02 @ 1:00 pm	2024-01-05 @ 1:00 pm	< 0.3	2024-01-09
11610348	D113D	2024-01-02 @ 1:00 pm	2024-01-05 @ 1:00 pm	$0.6 \pm 0.3$	2024-01-09
11610310	D117	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$1.7 \pm 0.3$	2024-01-09
11610309	D120	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$2.4 \pm 0.4$	2024-01-09
11610366	D201-1	2024-01-02 @ 1:00 pm	2024-01-05 @ 1:00 pm	< 0.3	2024-01-09
11610360	D201-2	2024-01-02 @ 1:00 pm	2024-01-05 @ 1:00 pm	< 0.3	2024-01-09
11610367	D205-1	2024-01-02 @ 1:00 pm	2024-01-05 @ 1:00 pm	$0.7 \pm 0.3$	2024-01-09
11610347	D205-2	2024-01-02 @ 1:00 pm	2024-01-05 @ 1:00 pm	$0.8 \pm 0.3$	2024-01-09
11610305	D401-2	2024-01-02 @ 1:00 pm	2024-01-05 @ 1:00 pm	$1.0 \pm 0.3$	2024-01-09
11610356	D401C-2	2024-01-02 @ 1:00 pm	2024-01-05 @ 1:00 pm	$0.5 \pm 0.3$	2024-01-09
11381060	D403-2	2024-01-02 @ 12:00 pm	2024-01-05 @ 12:00 pm	< 0.3	2024-01-09
11381079	DCUSTODIAL OFFICE -2	2024-01-02 @ 11:00 am	2024-01-05 @ 12:00 pm	$3.5 \pm 0.4$	2024-01-09
11381094	DCUSTODIAL OFFICE-1	2024-01-02 @ 11:00 am	2024-01-05 @ 12:00 pm	$2.7 \pm 0.4$	2024-01-09
11610301	DD101-2	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$1.5 \pm 0.4$	2024-01-09
11381078	DD105-2	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$1.1 \pm 0.4$	2024-01-09
11610318	DD109-2	2024-01-02 @ 12:00 pm	2024-01-05 @ 12:00 pm	$2.8 \pm 0.4$	2024-01-09
11610339	DDISTRICT OFFICE CONFERENCE -2	2024-01-02 @ 1:00 pm	2024-01-05 @ 1:00 pm	$0.8 \pm 0.3$	2024-01-09
11381063	DISCOVERY COMMONS	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$1.1 \pm 0.3$	2024-01-09
11610352	DISTRICT OFFICE CONFERENCE -1	2024-01-02 @ 1:00 pm	2024-01-05 @ 1:00 pm	< 0.3	2024-01-09
11381082	DL-23-2	2024-01-02 @ 11:00 am	2024-01-05 @ 12:00 pm	$0.9 \pm 0.4$	2024-01-09
11381089	DL-25-1	2024-01-02 @ 11:00 am	2024-01-05 @ 12:00 pm	$1.1 \pm 0.3$	2024-01-09
11381068	DL-26 OFFICE -2	2024-01-02 @ 12:00 pm	2024-01-05 @ 12:00 pm	$0.9 \pm 0.4$	2024-01-09
11610315	EC1	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$0.8 \pm 0.3$	2024-01-09
11610342	EC2	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$0.9 \pm 0.3$	2024-01-09
11610327	EC3	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	< 0.3	2024-01-09
11610334	EC3B	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$0.7 \pm 0.3$	2024-01-09
11610335	EC4	2024-01-02 @ 12:00 pm	-	$0.9 \pm 0.3$	2024-01-09
11610328	EC5	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$1.2 \pm 0.3$	2024-01-09

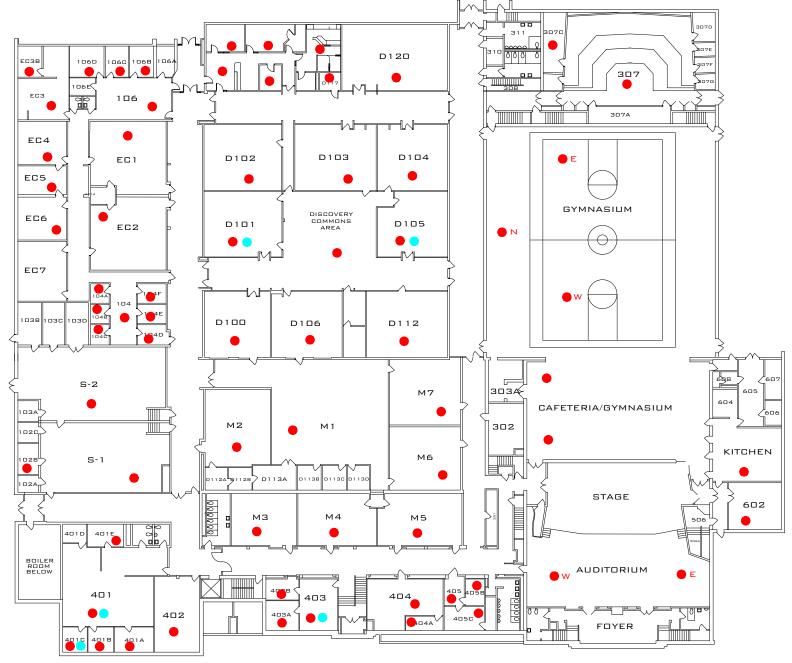
## Radon test result report for: BUFFALO HANOVER MONTROSE SCHOOLS **DISCOVERY ELEMENTARY**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
11610343	EC6	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$1.0 \pm 0.3$	2024-01-09
11610314	FL-18 A	2024-01-02 @ 1:00 pm	2024-01-05 @ 1:00 pm	< 0.3	2024-01-09
11610321	FL-18 B	2024-01-02 @ 1:00 pm	2024-01-05 @ 1:00 pm	< 0.3	2024-01-09
11610322	FL-18 C	2024-01-02 @ 1:00 pm	2024-01-05 @ 1:00 pm	< 0.3	2024-01-09
11381050	GYM EAST	2024-01-02 @ 12:00 pm	•	$0.8 \pm 0.4$	2024-01-09
11381062	GYM NORTH	-	2024-01-05 @ 12:00 pm	$1.3 \pm 0.4$	2024-01-09
11381027	GYM WEST	•	2024-01-05 @ 12:00 pm	$1.2 \pm 0.3$	2024-01-09
11610304	HEALTH OFFICE	•	2024-01-05 @ 12:00 pm	$2.1 \pm 0.4$	2024-01-09
11381069	KITCHEN	-	2024-01-05 @ 12:00 pm	$2.3 \pm 0.4$	2024-01-09
11381100	L-16	•	2024-01-05 @ 12:00 pm	$1.2 \pm 0.3$	2024-01-09
11381099	L-2		2024-01-05 @ 12:00 pm	$1.7 \pm 0.4$	2024-01-09
11381081	L-22		2024-01-05 @ 12:00 pm	$1.3 \pm 0.4$	2024-01-09
11381083	L-23-1		2024-01-05 @ 12:00 pm	$1.1 \pm 0.4$	2024-01-09
11381084	L-24		2024-01-05 @ 12:00 pm	$1.0 \pm 0.3$	2024-01-09
11381090	L-25 -1		2024-01-05 @ 12:00 pm	$1.2 \pm 0.4$	2024-01-09
11381067	L-26		2024-01-05 @ 12:00 pm	$1.5 \pm 0.3$	2024-01-09
11381073	L-26 OFFICE -1	•	2024-01-05 @ 12:00 pm	$1.2 \pm 0.4$	2024-01-09
11381074	L-27	•	2024-01-05 @ 12:00 pm	$1.0 \pm 0.4$	2024-01-09
11381075	L-29	2024-01-02 @ 11:00 am	2024-01-05 @ 12:00 pm	$1.3 \pm 0.3$	2024-01-09
11381097	L-3	2024-01-02 @ 11:00 am	2024-01-05 @ 12:00 pm	$1.2 \pm 0.4$	2024-01-09
11381076	L-30	2024-01-02 @ 11:00 am	2024-01-05 @ 12:00 pm	$1.3 \pm 0.4$	2024-01-09
11381098	L-4	2024-01-02 @ 11:00 am	2024-01-05 @ 12:00 pm	$1.1 \pm 0.3$	2024-01-09
11381092	L-4A	2024-01-02 @ 11:00 am	2024-01-05 @ 12:00 pm	$1.1 \pm 0.3$	2024-01-09
11610336	M1 COMMONS	2024-01-02 @ 1:00 pm	2024-01-05 @ 1:00 pm	< 0.3	2024-01-09
11610302	M2	2024-01-02 @ 1:00 pm	2024-01-05 @ 1:00 pm	< 0.3	2024-01-09
11381066	M3	2024-01-02 @ 12:00 pm	2024-01-05 @ 12:00 pm	< 0.3	2024-01-09
11381096	M4	2024-01-02 @ 12:00 pm	2024-01-05 @ 12:00 pm	< 0.3	2024-01-09
11381065	M5	2024-01-02 @ 12:00 pm	2024-01-05 @ 12:00 pm	$0.7 \pm 0.3$	2024-01-09
11381056	M6	2024-01-02 @ 12:00 pm	2024-01-05 @ 12:00 pm	$0.5 \pm 0.3$	2024-01-09
11381051	M7	2024-01-02 @ 12:00 pm	2024-01-05 @ 12:00 pm	< 0.3	2024-01-09
11610312	MAIN OFFICE	2024-01-02 @ 12:00 pm	2024-01-05 @ 1:00 pm	$1.8 \pm 0.3$	2024-01-09
11381091	NUTRITION SERVICES	2024-01-02 @ 11:00 am	2024-01-05 @ 12:00 pm	$1.3 \pm 0.3$	2024-01-09
11610345	OIEA OFFICE A	2024-01-02 @ 2:00 pm	2024-01-05 @ 2:00 pm	< 0.3	2024-01-09
11610338	OIEA OFFICE B	2024-01-02 @ 2:00 pm	2024-01-05 @ 2:00 pm	< 0.3	2024-01-09
11610337	OIEA OFFICE C	2024-01-02 @ 2:00 pm	2024-01-05 @ 2:00 pm	< 0.3	2024-01-09
11610359	SCHOOL BOARD ROOM	2024-01-02 @ 1:00 pm	2024-01-05 @ 1:00 pm	$1.2 \pm 0.3$	2024-01-09



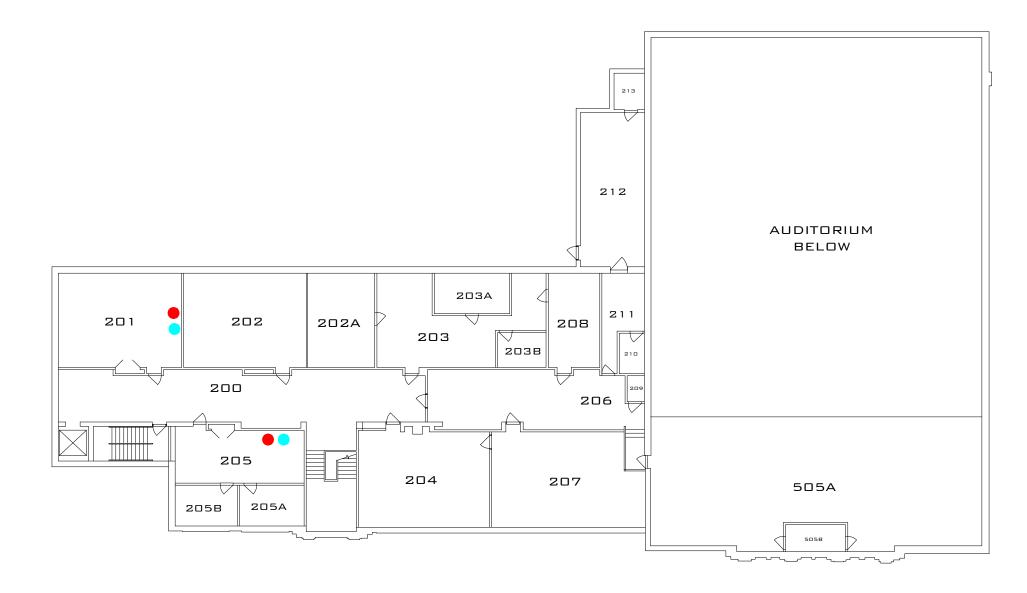


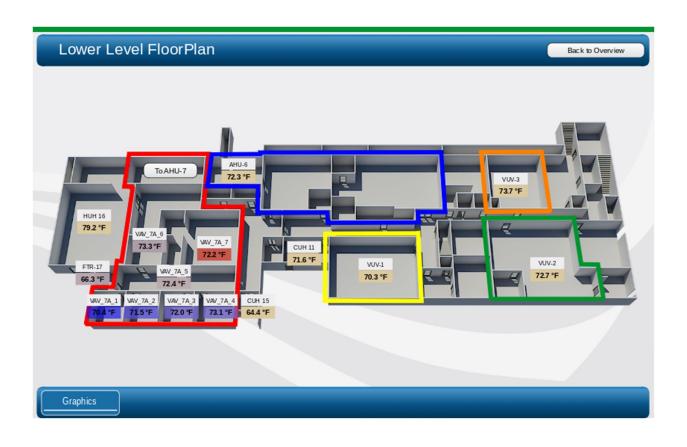
















# **Appendix C**

Signed Non-Interference Agreement

Client Commitments, Advisories, and Authorizations

#### NOTICE OF INSPECTION FOR ALL FACILITATING STAFF

#### A radon test is scheduled for:

Building:	Buffalo Community Middle			
Test Sta	art Date: 01-02-2024	Test End	01-05-2024	
		Date:		

#### Please help to maintain the required test conditions throughout the building

- 1. All windows and exterior doors must be kept closed (aside from momentary entry or exit) for 12 hours before and during the test.
- Heating and cooling systems must be set to normal occupied operating temperatures.
- 3. Test devices are not to be disturbed.

Further guidance on required building conditions are located on the next page.

Test devices are not dangerous in anyway. The type of devices used for this testing will include:

**Short-term test kits**. It is important that these devices are fully open and not covered. They will be analyzed by a laboratory.

**Continuous radon monitors**. These are electronic devices that record hourly radon readings. **Long-term test kits.** It is important that these devices are not covered. They will be analyzed by a laboratory.

#### **Declaration of Observed Compliance**

Failure to reasonably maintain test conditions can lead to unnecessary expense, disruptions and unreliable data.

Disturbing test devices can also cause unreliable or invalid test results.

- Please report in a timely manner if required test conditions are not maintained.
- Please sign and return this form once the test is complete.

To the best of my knowledge, the required conditions were maintained during Yes the test.

Name: Kent Melenich

KA A Mu

Signature:

Licensed Measurement Professional: Faith Breeden RMEA-00538

#### NOTICE OF INSPECTION FOR ALL FACILITATING STAFF

#### A radon test is scheduled for:

Building: Discovery Elementary		
Test Start Date: 01-02-2024	Test End 01-05-2024	
	Date:	

#### Please help to maintain the required test conditions throughout the building

- All windows and exterior doors must be kept closed (aside from momentary entry or exit) for
   hours before and during the test.
- 5. Heating and cooling systems must be set to normal occupied operating temperatures.
- 6. Test devices are not to be disturbed.

Further guidance on required building conditions are located on the next page.

Test devices are not dangerous in anyway. The type of devices used for this testing will include:

Short-term test kits. It is important that these devices are fully open and not covered. They will be analyzed by a laboratory.

Continuous radon monitors. These are electronic devices that record hourly radon readings. Long-term test kits. It is important that these devices are not covered. They will be analyzed by a laboratory.

#### **Declaration of Observed Compliance**

Failure to reasonably maintain test conditions can lead to unnecessary expense, disruptions and unreliable data.

Disturbing test devices can also cause unreliable or invalid test results.

- Please report in a timely manner if required test conditions are not maintained.
- Please sign and return this form once the test is complete.

To the best of my knowledge, the required conditions were maintained during			
the test.			
	Name:	Chris Doze	

Signature:

Signature.

Licensed Measurement Professional: Faith Breeden RMEA-00538

#### **COMMITMENTS, ADVISORIES, AND AUTHORIZATIONS**

I have been informed of test plan options that comply with ANSI/AARST MALB 2014 with 1/2021 Revisions.

To the extent reasonably possible, I commit to helping ensure that building conditions required to achieve reliable radon tests are met, as portrayed herein, by accepting the following responsibilities:

- 1. **Building Preparation**: I accept responsibility that, no later than 12 hours prior to testing, each building scheduled for testing will be reviewed for compliance with closed-building requirements.
- 2. **COMPLIANCE VERIFICATION:** I accept responsibility for taking actions that could include adjustments to HVAC units and repairs, such as for broken windows, where completion is required no later than 12 hours prior to testing. Verification will be provided as signed/initialed below or initialed on a log sheet, to be provided.
- 3. **PRIOR NOTIFICATIONS**: Notices will be distributed to all tested, non-tested dwellings and posted in publicly accessible areas such as in corridors, elevators and offices in a timely manner, no later than required by local law for gaining access to a dwelling or not later than the day before testing.
- 4. **Access**: Access will be provided to each location being tested within a building, with intent to access all locations within a building on the same day for both the event of placing test devices, and a second event for retrieving test devices.

A valid measurement at all test locations in each building is required. There is a possibility of delays and additional expense when test locations are not readily accessible or where requirements for *closed-building conditions* are not observed.

Date:

07/14/2023

Client:	Buffalo Hanover Montrose School District
Building:	Discovery Elementary and Buffalo Community Middle School
Name:	Tim Helppi
Signature:	<del>14</del>

# Appendix D Average Building Operating Conditions Comparison

## Climate Zone 6 (includes Southern MN)



		A	Annual Averag	es	During the Test
		24 Hour	Daytime	Daytime 9- Month	Prevailing During the Test
Operating	Outdoor Temperature and Weather Conditions	45 °F	50 °F	N/A	Average: 28 °F Minimum: 21 °F Maximum: 34 °F
Condition	Heating Conditions	75%	66%	88%	100%
	Cooling Conditions	ı	16%	11%	0%
	Mixed Conditions	25%	16%	-	0%
Normal Operating Condition		<ul><li>Heating c</li><li>No varian</li></ul>		air ventilation	<ul> <li>Heating conditions</li> <li>No variance in outdoor air ventilation</li> <li>Snow or ice present outdoors</li> </ul>
Condition less likely to inhibit characterization of a radon hazard		Heating a active	nd air distribu	tion systems	Heating and air distribution systems active

# **Appendix E**

**MDH Reporting Forms** 



# **School Radon Testing Reporting Form**

According to Minnesota Statute 123B.571 subd. 3, a school district that has tested its school buildings for the presence of radon shall report the results of its tests to the Department of Health. Please use this form to submit information about the most recent round or cycle of testing conducted for each building.

#### **Instructions**

Name:

- 1. Complete one form for each building tested. In this case, a building is defined as an occupied facility with a unique address. This includes administrative buildings.
- 2. Include this form, raw data (e.g. laboratory report) and a building map.
- Submit this form when all work is completed for a round of testing. This includes reporting to the school board, and follow-up testing and post-mitigation testing, if applicable.
- 4. Email information to <a href="health.indoorair@state.mn.us">health.indoorair@state.mn.us</a>.

#### **Contact Information**

Mailing Address:			
Phone:	Email:		
nitial Radon Testing Information			
School Building Name:			
School District & District Number:			
Building Address:			
Test Kit Manufacturer:	Device Name:		
Date of Kit Retrieval (DD/MM/YY):	Length of Test (days):		
How many rooms were tested?			
Does the test period include weekends? $\ \square$ Yes $\ \square$ No			
Does the test period include school breaks or h	olidays? 🗆 Yes 🗆 No		

#### SCHOOL RADON TESTING REPORTING FORM

Were all frequently-occupied ground contact r	rooms tested? <sup>1</sup>	es 🗆 No
If no, did you attempt to test all freque test kits were placed in all these rooms	· · ·	ntact rooms, meaning
How many rooms had results ≥ 4 pCi/L?:		
Were the results reported at a school board m	eeting? 🗆 Yes 🗆 N	No
Follow-up Testing, Mitigation, 8	k Post-Mitigation	n Testing
If one or more rooms tested ≥ 4 pCi/L, please an	nswer the questions belo	ow:
How many rooms had follow-up testing?:		
Number of rooms with follow-up results	≥ 4 pCi/L:	< 4 pCi/L:
Of the rooms that had test results ≥ 4 pCi/L, h	ow many rooms were:	
mitigated by HVAC balancing or operational ch	nanges? :	
mitigated by installation of active soil depressi	urization?:	
addressed through other corrective measures	?²:	
What was the cost of the installation and/or H	VAC service work, to mit	tigate radon?\$
What is the known or anticipated annual opera	ating cost of mitigation (	estimate)?\$
After radon mitigation, how many rooms were	e retested?:	
Post mitigation results (# of rooms)	≥ 4 pCi/L:	< 4 pCi/L:

<sup>&</sup>lt;sup>1</sup> This includes classrooms, offices, break rooms, laboratories, cafeterias, libraries, auditoriums, gymnasiums, etc. It includes rooms on grade and rooms above unoccupied spaces that are in contact with the ground, such as rooms above storage rooms, crawl spaces, tunnels, and boiler rooms. If only a sample or portion of rooms were tested, then respond with 'no'.

<sup>&</sup>lt;sup>2</sup> 'Other corrective measures' could include moving staff out of a room and making a room unoccupied or trying to seal radon entry points.



# **School Radon Testing Reporting Form**

According to Minnesota Statute 123B.571 subd. 3, a school district that has tested its school buildings for the presence of radon shall report the results of its tests to the Department of Health. Please use this form to submit information about the most recent round or cycle of testing conducted for each building.

#### **Instructions**

Name:

- 1. Complete one form for each building tested. In this case, a building is defined as an occupied facility with a unique address. This includes administrative buildings.
- 2. Include this form, raw data (e.g. laboratory report) and a building map.
- Submit this form when all work is completed for a round of testing. This includes reporting to the school board, and follow-up testing and post-mitigation testing, if applicable.
- 4. Email information to <a href="health.indoorair@state.mn.us">health.indoorair@state.mn.us</a>.

#### **Contact Information**

Mailing Address:			
Phone:	Email:		
nitial Radon Testing Information			
School Building Name:			
School District & District Number:			
Building Address:			
Test Kit Manufacturer:	Device Name:		
Date of Kit Retrieval (DD/MM/YY):	Length of Test (days):		
How many rooms were tested?			
Does the test period include weekends? $\ \square$ Yes $\ \square$ No			
Does the test period include school breaks or holidays? $\ \square$ Yes $\ \square$ No			

#### SCHOOL RADON TESTING REPORTING FORM

Were all frequently-occupied ground contact i	rooms tested? $^1$ $\square$ Y	es 🗆 No
If no, did you attempt to test all freque test kits were placed in all these rooms		ontact rooms, meaning
How many rooms had results ≥ 4 pCi/L?:		
Were the results reported at a school board m	neeting? 🗆 Yes 🗆 I	No
Follow-up Testing, Mitigation, &	•	•
How many rooms had follow-up testing?:		
Number of rooms with follow-up results	≥ 4 pCi/L:	< 4 pCi/L:
Of the rooms that had test results ≥ 4 pCi/L, h	ow many rooms were:	
mitigated by HVAC balancing or operational ch	nanges? :	
mitigated by installation of active soil depress	urization?:	
addressed through other corrective measures	? <sup>2</sup> :	
What was the cost of the installation and/or H	VAC service work, to mi	tigate radon?\$
What is the known or anticipated annual oper	ating cost of mitigation (	(estimate)?\$
After radon mitigation, how many rooms were	e retested?:	
Post mitigation results (# of rooms)	≥ 4 pCi/L:	< 4 pCi/L:

<sup>&</sup>lt;sup>1</sup> This includes classrooms, offices, break rooms, laboratories, cafeterias, libraries, auditoriums, gymnasiums, etc. It includes rooms on grade and rooms above unoccupied spaces that are in contact with the ground, such as rooms above storage rooms, crawl spaces, tunnels, and boiler rooms. If only a sample or portion of rooms were tested, then respond with 'no'.

<sup>&</sup>lt;sup>2</sup> 'Other corrective measures' could include moving staff out of a room and making a room unoccupied or trying to seal radon entry points.