



February 20, 2025

Molly Howell
Project Coordinator
Beaverton School District

Via email: molly_howell@beaverton.k12.or.us

Regarding: Short-Term Radon Testing
Fir Grove Elementary School
6300 SW Wilson Avenue
Beaverton, Oregon 97008

Ms. Howell:

From January 27 to January 30, 2025, PBS Engineering and Environmental LLC. (PBS) performed short-term radon testing at Fir Grove Elementary School in Beaverton, Oregon.

METHODOLOGY

The Environmental Protection Agency (EPA) recommends, and the Oregon Health Authority (OHA) requires, that school buildings be tested for radon, and that any radon concentrations be maintained below 4.0 picocuries per liter (pCi/L) of air. PBS used Radonova, Inc., brand single-use, short-term radon test kits to measure radon levels in frequently occupied rooms that are in contact with the ground or above unoccupied basements or crawlspaces. These rooms include classrooms, offices, break rooms, conference rooms, gyms, and cafeterias. Restrooms, hallways, stairwells, storage rooms, and closets are not tested. Testing was completed during the winter heating season and during a regular school week when building use and operations are normal.

PBS endeavored to use sample location names based on existing room numbers or common-sense descriptions. In buildings or areas where no room number or other designation was available, PBS assigned names or numbers to the rooms. In some circumstances, small numbers of test kits go missing during the testing period and those locations are not tested. PBS will evaluate whether or not the missing area should be retested based on the results of surrounding areas.

RESULTS

All samples revealed radon concentrations below the EPA action level of 4 pCi/L, except a single location. Additionally, two test kits went missing during the testing period.

The following table lists the sample in which radon levels were found to be above the EPA action level of 4 pCi/L.

Test Kits with Radon 4.0 pCi/L or above

Test Kit Number	Sample Location	Radon Level (pCi/L)
RK150595	Room A116 Book Storage Room	4.1

Room A116 is a book storage room. As discussed above, often storage rooms are not tested for radon. However, given that there is a desk located in Room A116 the inspector determined that a test at this location may be warranted. Given the results of the adjacent classrooms, it is likely that continuous closed conditions in room A116 resulted in the elevated radon concentration.

On February 10, PBS returned to Fir Grove Elementary School to deploy a follow-up test kit in Room A116, and replacement test kits for the two that went missing, reported as DNR on the attached report. The follow up testing period was from February 10 through February 13, 2025.

The testing revealed radon concentrations below the EPA action level of 4.0 pCi/L in rooms A106 and A112. These sample results were consistent with the findings from adjacent classrooms.

The follow-up testing in Room A116 revealed a radon concentration of 4.4 pCi/L, above the EPA action level.

Follow-Up Test Kits with Radon 4.0 pCi/L or above

Test Kit Number	Sample Location	Radon Level (pCi/L)
RK152759	Room A116 Book Storage Room	4.4

This sample indicates the presence of radon at the school. The closed room conditions in room A116 result in higher radon concentrations, whereas proper ventilation in occupied areas and classrooms appears to be maintaining radon concentrations at acceptable levels.

Follow-up long-term testing is recommended. Additionally, it should be noted that Room A116 should not be frequently occupied. It should be presumed that other unoccupied areas of the building, without ventilation may also have elevated concentrations of radon.

Please see the attached laboratory analysis reports for more details and testing locations.

In addition to the EPA recommendation that radon concentrations not exceed 4.0 pCi/L, OHA recommends that the following steps be conducted based on the results of a room's initial short-term test:

- **If the result is less than 2.0 pCi/L**, school districts are required to test again every 10 years, per Oregon Revised Statute 332.166-167.
- **If the result is between 2.0 pCi/L and 4.0 pCi/L**, consider fixing (i.e., lowering) the radon in that room.
- **If the result is from 4.0 pCi/L to 8.0 pCi/L**, perform a follow-up measurement of that room using a long-term test. This test should be conducted over as much of a nine-month school year as possible, when the room is likely to be occupied. If that result is equal to or greater than 4.0 pCi/L, the radon in the room should be fixed (i.e., lowered).
- **If the initial short-term test result is equal to or greater than 8.0 pCi/L**, conduct a second short-term test and average its result with the initial short-term test result. If the average of the two is equal to or greater than 4.0 pCi/L, radon in the room should be fixed (i.e., lowered).

Note: A great difference in the results of the short-term tests may indicate a flaw in the testing process. Investigate and consider retesting. For situations in which one of the test results is equal to or greater than 4.0 pCi/L, if the higher result is two or more times the lower result, repeat the test.

LIMITATIONS OF SCOPE

This study was limited to the tests and locations as previously indicated. The site as a whole may have other environmental concerns that will not be characterized by this study. The findings and conclusions of this work are not scientific certainties, but probabilities based on professional judgment concerning the significance of the data gathered during the course of this investigation. PBS is not able to represent conditions on the site or adjoining sites beyond those detected or observed by PBS.

Please feel free to contact me at 503.417.7603 or rich@pbsusa.com with any questions or comments.

Sincerely,

Rich Dufresne
Senior Project Manager

Attachment: Radonova Laboratory Analysis Report



The global leader in radon measurement

REPORT NUMBER

6689302:1

REPORT PAGE

1 of 7

REPORT DATE

02/07/2025

PRINT DATE

02/07/2025

OWN ID

24010915

BY

Apex Companies LLC (Portland)

RADON MONITORING REPORT

Description of the measurement

The measurement was performed with Activated Charcoal Adsorption by Alpha Energy Laboratories (NRPP ID: 101132 AL).

The detector(s) arrived to Alpha Energy Laboratories, Inc. **02/03/2025**.
They were measured **02/03/2025**.

The detectors were deployed by Rich Dufresne and retrieved by Rich Dufresne

Property data and address

MEASURE SITE ADDRESS

Fir Grove Elementary School

BUILDING ID

Test results

DETECTOR	MEASUREMENT PERIOD	DESCRIPTION / LOCATION	ROOM	FLOOR	RADON RESULT
RK148981 [QuickScreen]	01/27/2025 09:40 AM – 01/30/2025 03:18 PM	Main office reception, Standard			< 0.7 pCi/L
RK150571 [QuickScreen]	01/27/2025 09:41 AM – 01/30/2025 03:18 PM	Conference 1, Standard			< 0.6 pCi/L
RK148989 [QuickScreen]	01/27/2025 09:41 AM – 01/30/2025 03:18 PM	Health, Standard			< 0.7 pCi/L
RK150504 [QuickScreen]	01/27/2025 09:42 AM – 01/30/2025 03:18 PM	Principal, Standard			< 0.6 pCi/L
RK150584 [QuickScreen]	01/27/2025 09:42 AM – 01/30/2025 03:18 PM	Counselor, Standard			0.6 pCi/L
RK150567 [QuickScreen]	01/27/2025 09:44 AM – 01/30/2025 03:25 PM	A114, Standard			< 1.2 pCi/L
RK150595 [QuickScreen]	01/27/2025 09:44 AM – 01/30/2025 03:25 PM	A116, Standard			4.1 pCi/L

Comment to the results

Steve Leslie (Electronically signed)

Signature Radonova Laboratories Laboratory Measurement Specialist

This report may only be reproduced in full, unless issuing laboratory has given prior written approval.

DISCLAIMER

Radonova Inc. makes no warranty of any kind, express or implied, as regard to the use, operation or analysis of any Radonova Inc. monitor. Radonova Inc. specifically disclaims implied warranties of merchantability and fitness for a particular purpose. Radonova Inc. is not responsible for any damage, including consequential damages, to persons or property resulting from the use of the monitor or the resulting data.

RADONOVA INC.

1 EAST 22nd STREET, SUITE 200
LOMBARD, IL 60148
331.814.2200, help@radonova.com

US_EN_002_REPORT_v250116:1.ppcd

RADON MONITORING REPORT

Description of the measurement

The measurement was performed with Activated Charcoal Adsorption by Alpha Energy Laboratories (NRPP ID: 101132 AL).

The detector(s) arrived to Alpha Energy Laboratories, Inc. **02/03/2025**.
They were measured **02/03/2025**.

The detectors were deployed by Rich Dufresne and retrieved by Rich Dufresne

Property data and address

MEASURE SITE ADDRESS
Fir Grove Elementary School

BUILDING ID

DETECTOR	MEASUREMENT PERIOD	DESCRIPTION / LOCATION	ROOM	FLOOR	RADON RESULT
RK149077 [QuickScreen]	01/27/2025 09:45 AM –	A112, Standard			DNR
RK149043 [QuickScreen]	01/27/2025 09:45 AM – 01/30/2025 03:25 PM	A110, Standard			2.1 pCi/L
RK150533 [QuickScreen]	01/27/2025 09:46 AM – 01/30/2025 03:25 PM	A108, Standard			1.8 pCi/L
RK149050 [QuickScreen]	01/27/2025 09:47 AM – 01/30/2025 03:25 PM	A106, Standard			DNR
RK149009 [QuickScreen]	01/27/2025 09:47 AM –	A106 DUP, Duplicate			DNR
RK150350 [QuickScreen]	01/27/2025 09:48 AM – 01/30/2025 03:25 PM	A104, Standard			< 1.0 pCi/L
RK150497 [QuickScreen]	01/27/2025 09:48 AM – 01/30/2025 03:25 PM	A102, Standard			1.2 pCi/L
RK150563 [QuickScreen]	01/27/2025 09:49 AM – 01/30/2025 03:25 PM	A100, Standard			3.8 pCi/L
RK149064 [QuickScreen]	01/27/2025 09:50 AM – 01/30/2025 03:35 PM	Workroom, Standard			0.8 pCi/L

Comment to the results

Steve Leslie (Electronically signed)

Signature Radonova Laboratories Laboratory Measurement Specialist

This report may only be reproduced in full, unless issuing laboratory has given prior written approval.

DISCLAIMER

Radonova Inc. makes no warranty of any kind, express or implied, as regard to the use, operation or analysis of any Radonova Inc. monitor. Radonova Inc. specifically disclaims implied warranties of merchantability and fitness for a particular purpose. Radonova Inc. is not responsible for any damage, including consequential damages, to persons or property resulting from the use of the monitor or the resulting data.

RADONOVA INC.

1 EAST 22nd STREET, SUITE 200
LOMBARD, IL 60148
331.814.2200, help@radonova.com

RADON MONITORING REPORT

Description of the measurement

The measurement was performed with Activated Charcoal Adsorption by Alpha Energy Laboratories (NRPP ID: 101132 AL).

The detector(s) arrived to Alpha Energy Laboratories, Inc. **02/03/2025**.
They were measured **02/03/2025**.

The detectors were deployed by Rich Dufresne and retrieved by Rich Dufresne

Property data and address

MEASURE SITE ADDRESS

Fir Grove Elementary School

BUILDING ID

DETECTOR	MEASUREMENT PERIOD	DESCRIPTION / LOCATION	ROOM	FLOOR	RADON RESULT
RK150528 [QuickScreen]	01/27/2025 09:51 AM – 01/30/2025 03:35 PM	B100, Standard			0.9 pCi/L
RK149049 [QuickScreen]	01/27/2025 09:52 AM – 01/30/2025 03:35 PM	Library, Standard			0.6 pCi/L
RK149010 [QuickScreen]	01/27/2025 09:52 AM – 01/30/2025 03:35 PM	Library, Standard			1.2 pCi/L
RK149070 [QuickScreen]	01/27/2025 09:53 AM – 01/30/2025 03:35 PM	B120, Standard			< 0.6 pCi/L
RK150532 [QuickScreen]	01/27/2025 09:54 AM – 01/30/2025 03:35 PM	B118, Standard			< 0.7 pCi/L
RK150573 [QuickScreen]	01/27/2025 09:54 AM – 01/30/2025 03:35 PM	B118, Standard			1.2 pCi/L
RK149016 [QuickScreen]	01/27/2025 09:54 AM – 01/30/2025 03:35 PM	B116, Standard			< 0.7 pCi/L
RK149071 [QuickScreen]	01/27/2025 09:55 AM – 01/30/2025 03:35 PM	B114, Standard			< 0.6 pCi/L
RK150551 [QuickScreen]	01/27/2025 09:56 AM – 01/30/2025 03:35 PM	B112, Standard			1.0 pCi/L

Comment to the results

Steve Leslie (Electronically signed)

Signature Radonova Laboratories Laboratory Measurement Specialist

This report may only be reproduced in full, unless issuing laboratory has given prior written approval.

DISCLAIMER

Radonova Inc. makes no warranty of any kind, express or implied, as regard to the use, operation or analysis of any Radonova Inc. monitor. Radonova Inc. specifically disclaims implied warranties of merchantability and fitness for a particular purpose. Radonova Inc. is not responsible for any damage, including consequential damages, to persons or property resulting from the use of the monitor or the resulting data.

RADONOVA INC.

1 EAST 22nd STREET, SUITE 200

LOMBARD, IL 60148

331.814.2200, help@radonova.com

RADON MONITORING REPORT

Description of the measurement

The measurement was performed with Activated Charcoal Adsorption by Alpha Energy Laboratories (NRPP ID: 101132 AL).

The detector(s) arrived to Alpha Energy Laboratories, Inc. **02/03/2025**.
They were measured **02/03/2025**.

The detectors were deployed by Rich Dufresne and retrieved by Rich Dufresne

Property data and address

MEASURE SITE ADDRESS
Fir Grove Elementary School

BUILDING ID

DETECTOR	MEASUREMENT PERIOD	DESCRIPTION / LOCATION	ROOM	FLOOR	RADON RESULT
RK149073 [QuickScreen]	01/27/2025 09:56 AM – 01/30/2025 03:35 PM	Library office, Standard			0.9 pCi/L
RK150499 [QuickScreen]	01/27/2025 09:56 AM – 01/30/2025 03:35 PM	B108, Standard			< 0.8 pCi/L
RK149047 [QuickScreen]	01/27/2025 09:58 AM – 01/30/2025 03:35 PM	B106, Standard			0.9 pCi/L
RK150585 [QuickScreen]	01/27/2025 09:58 AM – 01/30/2025 03:35 PM	B104, Standard			< 0.9 pCi/L
RK149075 [QuickScreen]	01/27/2025 09:59 AM – 01/30/2025 03:35 PM	B102, Standard			1.3 pCi/L
RK150328 [QuickScreen]	01/27/2025 10:02 AM – 01/30/2025 03:41 PM	B130, Standard			1.2 pCi/L
RK150761 [QuickScreen]	01/27/2025 10:02 AM – 01/30/2025 03:41 PM	B132, Standard			1.2 pCi/L
RK150341 [QuickScreen]	01/27/2025 10:02 AM – 01/30/2025 03:41 PM	B134, Standard			1.3 pCi/L
RK150784 [QuickScreen]	01/27/2025 10:02 AM – 01/30/2025 03:41 PM	B134 DUP, Duplicate			1.1 pCi/L

Comment to the results

Steve Leslie (Electronically signed)

Signature Radonova Laboratories Laboratory Measurement Specialist

This report may only be reproduced in full, unless issuing laboratory has given prior written approval.

DISCLAIMER

Radonova Inc. makes no warranty of any kind, express or implied, as regard to the use, operation or analysis of any Radonova Inc. monitor. Radonova Inc. specifically disclaims implied warranties of merchantability and fitness for a particular purpose. Radonova Inc. is not responsible for any damage, including consequential damages, to persons or property resulting from the use of the monitor or the resulting data.

RADONOVA INC.

1 EAST 22nd STREET, SUITE 200
LOMBARD, IL 60148
331.814.2200, help@radonova.com

RADON MONITORING REPORT

Description of the measurement

The measurement was performed with Activated Charcoal Adsorption by Alpha Energy Laboratories (NRPP ID: 101132 AL).

The detector(s) arrived to Alpha Energy Laboratories, Inc. **02/03/2025**.
They were measured **02/03/2025**.

The detectors were deployed by Rich Dufresne and retrieved by Rich Dufresne

Property data and address

MEASURE SITE ADDRESS
Fir Grove Elementary School

BUILDING ID

DETECTOR	MEASUREMENT PERIOD	DESCRIPTION / LOCATION	ROOM	FLOOR	RADON RESULT
RK150739 [QuickScreen]	01/27/2025 10:03 AM – 01/30/2025 03:41 PM	B136, Standard			1.3 pCi/L
RK150777 [QuickScreen]	01/27/2025 10:04 AM – 01/30/2025 03:41 PM	B130 commons, Standard			1.3 pCi/L
RK150299 [QuickScreen]	01/27/2025 10:05 AM – 01/30/2025 03:46 PM	B128, Standard			1.8 pCi/L
RK150715 [QuickScreen]	01/27/2025 10:06 AM – 01/30/2025 03:46 PM	B126, Standard			1.8 pCi/L
RK150734 [QuickScreen]	01/27/2025 10:06 AM – 01/30/2025 03:46 PM	B124, Standard			1.0 pCi/L
RK150727 [QuickScreen]	01/27/2025 10:06 AM – 01/30/2025 03:46 PM	B122, Standard			1.2 pCi/L
RK150353 [QuickScreen]	01/27/2025 10:07 AM – 01/30/2025 03:46 PM	B120 commons, Standard			1.4 pCi/L
RK150387 [QuickScreen]	01/27/2025 10:17 AM – 01/30/2025 03:57 PM	Staff room, Standard			1.2 pCi/L
RK150361 [QuickScreen]	01/27/2025 10:15 AM – 01/30/2025 03:57 PM	Multipurpose room, Standard			1.3 pCi/L

Comment to the results

Steve Leslie (Electronically signed)

Signature Radonova Laboratories Laboratory Measurement Specialist

This report may only be reproduced in full, unless issuing laboratory has given prior written approval.

DISCLAIMER

Radonova Inc. makes no warranty of any kind, express or implied, as regard to the use, operation or analysis of any Radonova Inc. monitor. Radonova Inc. specifically disclaims implied warranties of merchantability and fitness for a particular purpose. Radonova Inc. is not responsible for any damage, including consequential damages, to persons or property resulting from the use of the monitor or the resulting data.

RADONOVA INC.

1 EAST 22nd STREET, SUITE 200
LOMBARD, IL 60148
331.814.2200, help@radonova.com

RADON MONITORING REPORT

Description of the measurement

The measurement was performed with Activated Charcoal Adsorption by Alpha Energy Laboratories (NRPP ID: 101132 AL).

The detector(s) arrived to Alpha Energy Laboratories, Inc. **02/03/2025**.
They were measured **02/03/2025**.

The detectors were deployed by Rich Dufresne and retrieved by Rich Dufresne

Property data and address

MEASURE SITE ADDRESS
Fir Grove Elementary School

BUILDING ID

DETECTOR	MEASUREMENT PERIOD	DESCRIPTION / LOCATION	ROOM	FLOOR	RADON RESULT
RK147722 [QuickScreen]	01/27/2025 10:15 AM – 01/30/2025 03:57 PM	Multipurpose room, Standard			1.6 pCi/L
RK150377 [QuickScreen]	01/27/2025 10:17 AM – 01/30/2025 03:57 PM	C102, Standard			1.3 pCi/L
RK149027 [QuickScreen]	01/27/2025 10:21 AM – 01/30/2025 03:57 PM	Gym, Standard			2.3 pCi/L
RK149011 [QuickScreen]	01/27/2025 10:21 AM – 01/30/2025 03:57 PM	Gym, Standard			3.5 pCi/L
RK149032 [QuickScreen]	01/27/2025 10:23 AM – 01/30/2025 03:57 PM	Custodial office, Standard			2.0 pCi/L
RK147745 [QuickScreen]	01/27/2025 10:24 AM – 01/30/2025 04:08 PM	Kitchen, Standard			0.8 pCi/L
RK150386 [QuickScreen]	01/27/2025 10:26 AM – 01/30/2025 04:08 PM	Cafeteria, Standard			1.6 pCi/L
RK150297 [QuickScreen]	01/27/2025 10:26 AM – 01/30/2025 04:08 PM	Cafeteria, Standard			2.0 pCi/L

Comment to the results

Steve Leslie (Electronically signed)

Signature Radonova Laboratories Laboratory Measurement Specialist

This report may only be reproduced in full, unless issuing laboratory has given prior written approval.

DISCLAIMER

Radonova Inc. makes no warranty of any kind, express or implied, as regard to the use, operation or analysis of any Radonova Inc. monitor. Radonova Inc. specifically disclaims implied warranties of merchantability and fitness for a particular purpose. Radonova Inc. is not responsible for any damage, including consequential damages, to persons or property resulting from the use of the monitor or the resulting data.

RADONOVA INC.

1 EAST 22nd STREET, SUITE 200
LOMBARD, IL 60148
331.814.2200, help@radonova.com

What Does My Result Mean?

The United States Environmental Protection Agency (EPA) recommends remediation if the results of one long-term test (greater than 90 days) or one short-term test with a continuous monitor or the average of two passive short-term (less than 90 days) tests* conducted in the lowest lived-in level of the home report at or above 4.0 pCi/L.

*If an initial short-term test result is less than 4 pCi/L, a follow-up measurement is probably not needed. If an initial short-term test result is between 4 pCi/L and 8 pCi/L, a long-term or a short-term follow-up measurement is recommended. If an initial short-term test result is greater than 8 pCi/L, a short-term follow-up measurement is recommended. For more information, or to find a certified mitigation professional, contact your state radon office, the National Radon Proficiency Program (www.nrpp.info) or the National Radon Safety Board (www.nrsb.org).

Result (pCi/L) Recommended Action

Less than 2.0 Retest the building at least every 5 years

2.0 - 3.9 Consider Mitigation, retest the building at least every 5 years

4.0 or Higher Mitigate, test again at least every 2 years to ensure that the system remains effective

Measurement method: Activated Charcoal Adsorption

For this method using the QuickScreen detector, the airtight container with activated charcoal is opened in the area to be sampled and radon in the air adsorbs onto the charcoal granules. At the end of the sampling period, the container is sealed and may be sent to a laboratory for analysis. The gamma decay from the radon adsorbed to the charcoal is counted on a scintillation detector and a calculation based on calibration information is used to calculate the radon concentration at the sample site.

Measured radon concentrations

For each detector, the measured value of the radon concentration is provided. For each value an uncertainty associated with the measurement to a 95% confidence level is also provided. For example a measurement result of 4.0 ± 0.5 pCi/L means that the radon concentration is most likely contained in the range 3.5 - 4.5 pCi/L. If the start or end date of the measurement has not been provided, the radon concentration cannot be calculated. In such cases, the total exposure in pCi*days/L will be reported. The reported measured values are related to the detectors as received by Radonova Laboratories. Detector deployment is not performed by Radonova Laboratories. Measurement information such as monitoring period (dates) and placement location is provided to Radonova Laboratories by the end user. The presented result applies only to the sample tested as received by the laboratory.

Codes on non-reportable detectors

DNR Not Reported – Detector Not Returned

ERR Not Reported – See comment

Measurement method versions used when the report was created

ANSI/AARST MAH-2023, Protocol for Conducting Measurements of Radon and Radon Decay Products in Homes

ANSI/AARST MA-MFLB-2023, Protocol for Measurements of Radon in Multifamily, School, Commercial and Mixed-Use Buildings

Radon measurements in the US

The United States Environmental Protection Agency (EPA) recommends remediation if the results of one long-term test or the average of two short-term tests conducted in the lowest lived-in level of the home report at or above 4.0 pCi/L. The average yearly residential indoor radon level in the US is estimated to be around 1.3 pCi/L. Long-term tests are conducted for more than 90 days. Short-term tests are conducted between 2 and 90 days and should be performed under closed building conditions. If an initial short-term test result is less than 4 pCi/L, a follow-up measurement is probably not needed. If an initial short-term test result is greater than 10 pCi/L, a short-term follow-up measurement is recommended in order to get a fast result. If an initial short-term test result is between 4 pCi/L and 10 pCi/L, a long-term or a short-term follow-up measurement is recommended. For more information about the interpretation of your test results or about other radon related issues we suggest contacting your state radon office.

Your state radon office should have the available EPA publications:

- A Citizen's Guide to Radon
- Home Buyer's and Seller's Guide to Radon
- Consumer's Guide to Radon Reduction

Signature on the report

With the signature on the report, the Measurement specialist at Radonova Laboratories certifies that the quality control procedures follows the guidance in accordance with the AARST/ANSI Measurement Protocols. Measurement information displayed in italics on report has been provided by the customer.

Certification no:

101132-AL, 107830-RMP, NY ELAP ID: 11430

DISCLAIMER

Radonova Inc. makes no warranty of any kind, express or implied, as regard to the use, operation or analysis of any Radonova Inc. monitor. Radonova Inc. specifically disclaims implied warranties of merchantability and fitness for a particular purpose. Radonova Inc. is not responsible for any damage, including consequential damages, to persons or property resulting from the use of the monitor or the resulting data.

RADONOVA INC.

1 EAST 22nd STREET, SUITE 200

LOMBARD, IL 60148

331.814.2200, help@radonova.com

RADON MONITORING REPORT

Description of the measurement

The measurement was performed with Activated Charcoal Adsorption by Alpha Energy Laboratories (NRPP ID: 101132 AL).

The detector(s) arrived to Alpha Energy Laboratories, Inc. **02/17/2025**.
They were measured **02/17/2025**.

No person has signed the record card and verified that the instructions have been followed.

Property data and address

MEASURE SITE ADDRESS
Fir Grove Elementary School - Follow Up

BUILDING ID

Test results

DETECTOR	MEASUREMENT PERIOD	DESCRIPTION / LOCATION	ROOM	FLOOR	RADON RESULT
RK152775 [QuickScreen]	02/10/2025 11:42 AM – 02/13/2025 10:27 AM	A106, Standard			1.4 pCi/L
RK152751 [QuickScreen]	02/10/2025 11:45 AM – 02/13/2025 10:27 AM	A112, Standard			0.8 pCi/L
RK152759 [QuickScreen]	02/10/2025 11:49 AM – 02/13/2025 10:26 AM	A116, Standard			4.4 pCi/L

Comment to the results

Steve Leslie (Electronically signed)

Signature Radonova Laboratories Laboratory Measurement Specialist

This report may only be reproduced in full, unless issuing laboratory has given prior written approval.

DISCLAIMER

Radonova Inc. makes no warranty of any kind, express or implied, as regard to the use, operation or analysis of any Radonova Inc. monitor. Radonova Inc. specifically disclaims implied warranties of merchantability and fitness for a particular purpose. Radonova Inc. is not responsible for any damage, including consequential damages, to persons or property resulting from the use of the monitor or the resulting data.

RADONOVA INC.

1 EAST 22nd STREET, SUITE 200
LOMBARD, IL 60148
331.814.2200, help@radonova.com

What Does My Result Mean?

The United States Environmental Protection Agency (EPA) recommends remediation if the results of one long-term test (greater than 90 days) or one short-term test with a continuous monitor or the average of two passive short-term (less than 90 days) tests* conducted in the lowest lived-in level of the home report at or above 4.0 pCi/L. *If an initial short-term test result is less than 4 pCi/L, a follow-up measurement is probably not needed. If an initial short-term test result is between 4 pCi/L and 8 pCi/L, a long-term or a short-term follow-up measurement is recommended. If an initial short-term test result is greater than 8 pCi/L, a short-term follow-up measurement is recommended. For more information, or to find a certified mitigation professional, contact your state radon office, the National Radon Proficiency Program (www.nrpp.info) or the National Radon Safety Board (www.nrsb.org).

Result (pCi/L) Recommended Action

Less than 2.0	Retest the building at least every 5 years
2.0 - 3.9	Consider Mitigation, retest the building at least every 5 years
4.0 or Higher	Mitigate, test again at least every 2 years to ensure that the system remains effective

Measurement method: Activated Charcoal Adsorption

For this method using the QuickScreen detector, the airtight container with activated charcoal is opened in the area to be sampled and radon in the air adsorbs onto the charcoal granules. At the end of the sampling period, the container is sealed and may be sent to a laboratory for analysis. The gamma decay from the radon adsorbed to the charcoal is counted on a scintillation detector and a calculation based on calibration information is used to calculate the radon concentration at the sample site.

Measured radon concentrations

For each detector, the measured value of the radon concentration is provided. For each value an uncertainty associated with the measurement to a 95% confidence level is also provided. For example a measurement result of 4.0 ± 0.5 pCi/L means that the radon concentration is most likely contained in the range 3.5 - 4.5 pCi/L. If the start or end date of the measurement has not been provided, the radon concentration cannot be calculated. In such cases, the total exposure in pCi*days/L will be reported. The reported measured values are related to the detectors as received by Radonova Laboratories. Detector deployment is not performed by Radonova Laboratories. Measurement information such as monitoring period (dates) and placement location is provided to Radonova Laboratories by the end user. The presented result applies only to the sample tested as received by the laboratory.

Codes on non-reportable detectors

DNR	Not Reported – Detector Not Returned
ERR	Not Reported – See comment

Measurement method versions used when the report was created

ANSI/AARST MAH-2023, Protocol for Conducting Measurements of Radon and Radon Decay Products in Homes

ANSI/AARST MA-MFLB-2023, Protocol for Measurements of Radon in Multifamily, School, Commercial and Mixed-Use Buildings

Radon measurements in the US

The United States Environmental Protection Agency (EPA) recommends remediation if the results of one long-term test or the average of two short-term tests conducted in the lowest lived-in level of the home report at or above 4.0 pCi/L. The average yearly residential indoor radon level in the US is estimated to be around 1.3 pCi/L. Long-term tests are conducted for more than 90 days. Short-term tests are conducted between 2 and 90 days and should be performed under closed building conditions. If an initial short-term test result is less than 4 pCi/L, a follow-up measurement is probably not needed. If an initial short-term test result is greater than 10 pCi/L, a short-term follow-up measurement is recommended in order to get a fast result. If an initial short-term test result is between 4 pCi/L and 10 pCi/L, a long-term or a short-term follow-up measurement is recommended. For more information about the interpretation of your test results or about other radon related issues we suggest contacting your state radon office.

Your state radon office should have the available EPA publications:

- A Citizen's Guide to Radon
- Home Buyer's and Seller's Guide to Radon
- Consumer's Guide to Radon Reduction

Signature on the report

With the signature on the report, the Measurement specialist at Radonova Laboratories certifies that the quality control procedures follows the guidance in accordance with the AARST/ANSI Measurement Protocols. Measurement information displayed in italics on report has been provided by the customer.

Certification no:

101132-AL, 107830-RMP, NY ELAP ID: 11430

DISCLAIMER

Radonova Inc. makes no warranty of any kind, express or implied, as regard to the use, operation or analysis of any Radonova Inc. monitor. Radonova Inc. specifically disclaims implied warranties of merchantability and fitness for a particular purpose. Radonova Inc. is not responsible for any damage, including consequential damages, to persons or property resulting from the use of the monitor or the resulting data.

RADONOVA INC.

1 EAST 22nd STREET, SUITE 200
LOMBARD, IL 60148
331.814.2200, help@radonova.com