



November 7, 2017

Casey Waletich
Executive Director of Facilities, Safety, and Operations
Hillsboro School District
4901 SE Witch Hazel Road
Hillsboro, Oregon 97123

Via email: waleticc@hsd.k12.or.us

Regarding: District Wide Radon Testing
Paul L Patterson Elementary School
261 NE Lenox Street
Hillsboro, Oregon
PBS Project 23440.024, Phase 0002

Dear Mr. Waletich:

From October 16 to October 20, 2017, PBS Engineering and Environmental Inc. (PBS) performed short term radon testing at Paul L Patterson Elementary School located at 261 NE Lenox Street in Hillsboro, Oregon.

The Environmental Protection Agency (EPA) and Oregon Health Authority (OHA) recommend that buildings be tested for radon and that any radon concentrations be maintained below 4.0 picocuries per liter (pCi/L) of air. PBS used Air Chek, 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.

Laboratory results indicate all short-term radon tests at Paul L Patterson Elementary School tested below 4.0 pCi/L.

See the attached Laboratory Analysis Report for more details.

In addition to the EPA recommendation that radon concentrations not exceed 4.0 pCi/L, OHA recommends 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 503.417.7694 or chris.boyce@pbsusa.com with any questions or comments.

Sincerely,



Chris Boyce
Project Manager

Attachment: AirChek, Inc Laboratory Analysis Report

CB::bmp

Radon test result report for:**PATTERSON
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7889139	101	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	< 0.3	2017-10-23
7889140	101 OFFICE	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	< 0.3	2017-10-23
7889157	102	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	1.2 ± 0.3	2017-10-23
7889158	102 OFFICE	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	0.8 ± 0.3	2017-10-23
7889141	103	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	< 0.3	2017-10-23
7889142	104	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	< 0.3	2017-10-23
7889144	105	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	0.8 ± 0.3	2017-10-23
7889145	106	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	0.6 ± 0.3	2017-10-23
7889150	106-109 ACTIVITY	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	0.8 ± 0.3	2017-10-23
7889146	107	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	0.7 ± 0.3	2017-10-23
7889147	108	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	0.8 ± 0.3	2017-10-23
7889148	109	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	0.7 ± 0.3	2017-10-23
7889152	110	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	< 0.3	2017-10-23
7889151	110-113 ACTIVITY	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	0.6 ± 0.2	2017-10-23
7889153	111	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	0.8 ± 0.3	2017-10-23
7889154	112	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	< 0.3	2017-10-23
7889155	113	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	< 0.3	2017-10-23
7889160	CAFETERIA-1	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	< 0.3	2017-10-23
7889161	CAFETERIA-2	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	0.6 ± 0.3	2017-10-23
7889133	COMPUTER LAB	2017-10-16 @ 3:00 pm	2017-10-20 @ 12:00 pm	< 0.3	2017-10-23
7889128	CONFERENCE	2017-10-16 @ 3:00 pm	2017-10-20 @ 12:00 pm	< 0.3	2017-10-23
7889132	COUNSELING	2017-10-16 @ 3:00 pm	2017-10-20 @ 12:00 pm	< 0.3	2017-10-23
7889162	CUSTODIAL OFFICE	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	1.0 ± 0.3	2017-10-23
7889163	GYM OFFICE	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	3.2 ± 0.4	2017-10-23
7889164	GYM-1	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	1.1 ± 0.3	2017-10-23
7889165	GYM-2	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	0.9 ± 0.3	2017-10-23
7889127	HEALTH	2017-10-16 @ 3:00 pm	2017-10-20 @ 12:00 pm	0.7 ± 0.3	2017-10-23
7889126	MAIN OFFICE	2017-10-16 @ 3:00 pm	2017-10-20 @ 12:00 pm	0.7 ± 0.3	2017-10-23
7889136	MEDIA CTR OFFICE	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	< 0.3	2017-10-23
7889134	MEDIA CTR-1	2017-10-16 @ 3:00 pm	2017-10-20 @ 12:00 pm	0.6 ± 0.3	2017-10-23
7889135	MEDIA CTR-2	2017-10-16 @ 3:00 pm	2017-10-20 @ 12:00 pm	0.7 ± 0.3	2017-10-23
7889159	MUSIC	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	0.6 ± 0.3	2017-10-23
7889129	OFF. CONFERENCE	2017-10-16 @ 3:00 pm	2017-10-20 @ 12:00 pm	< 0.3	2017-10-23
7889166	PRIN. OFFICE	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	< 0.3	2017-10-23
7889137	SMALL GRP 1	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	0.6 ± 0.2	2017-10-23
7889138	SMALL GRP 2	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	0.6 ± 0.2	2017-10-23
7889143	SMALL GRP 3	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	0.7 ± 0.3	2017-10-23

October 23, 2017

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

**PATTERSON
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7889149	SMALL GRP 4	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	0.8 ± 0.3	2017-10-23
7889156	SMALL GRP 5	2017-10-16 @ 4:00 pm	2017-10-20 @ 12:00 pm	0.7 ± 0.2	2017-10-23
7889125	WORK RM-DUP.	2017-10-16 @ 3:00 pm	2017-10-20 @ 12:00 pm	< 0.3	2017-10-23
7889124	WORK ROOM	2017-10-16 @ 3:00 pm	2017-10-20 @ 12:00 pm	0.7 ± 0.3	2017-10-23

Air Chek, Inc. 1936 Butler Bridge Rd, Mills River, NC 28759-3892 Phone: (828) 684-0893 Fax: (828) 684-8498

October 23, 2017

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
PATTERSON

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7889131	BLANK	2017-10-16 @ 3:00 pm	2017-10-20 @ 12:00 pm	< 0.3	2017-10-23
7889130	STAFF LOUNGE	2017-10-16 @ 3:00 pm	2017-10-20 @ 12:00 pm	< 0.3	2017-10-23

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