



November 13, 2018

Dave Peterson  
Hillsboro School District  
4901 SE Witch Hazel Road  
Hillsboro, Oregon 97123

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

Regarding:       District Wide Radon Testing  
                  Indian Hills Elementary School  
                  21260 SW Rock Road  
                  Aloha, Oregon  
                  PBS Project 23440.024, Phase 0003

Dear Mr. Peterson:

From October 16 to October 19, 2018, PBS Engineering and Environmental Inc. (PBS) performed short term radon testing at Indian Hills Elementary School located at 21260 SW Rock Road 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 AirChek, 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 Indian Hills 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 503.935.5484 or [dale.voeller@pbsusa.com](mailto:dale.voeller@pbsusa.com) with any questions or comments.

Sincerely,

Dale Voeller, CHMM, CSP  
Senior Project Manager

Attachment: AirChek, Inc Laboratory Analysis Report

SG::dsv

Radon test result report for:**INDIAN HILLS  
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9119523	CAFETERIA 1	2018-10-16 @ 12:00 pm	2018-10-19 @ 12:00 pm	1.2 ± 0.3	2018-10-22
9119516	CAFETERIA 2	2018-10-16 @ 12:00 pm	2018-10-19 @ 12:00 pm	1.6 ± 0.3	2018-10-22
9119525	COUNS RM. DUP	2018-10-16 @ 12:00 pm	2018-10-19 @ 11:00 am	0.8 ± 0.3	2018-10-22
9119531	COUNSELING ROOM	2018-10-16 @ 12:00 pm	2018-10-19 @ 11:00 am	1.0 ± 0.3	2018-10-22
9119524	CUSTODIAL OFFICE	2018-10-16 @ 12:00 pm	2018-10-19 @ 12:00 pm	2.0 ± 0.4	2018-10-22
9119884	ERC	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	1.3 ± 0.4	2018-10-22
9119535	ESL PORTABLE	2018-10-16 @ 12:00 pm	2018-10-19 @ 12:00 pm	0.7 ± 0.3	2018-10-22
9119885	GYM 1	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	1.5 ± 0.3	2018-10-22
9119887	GYM 2	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	1.2 ± 0.3	2018-10-22
9119897	GYM OFFICE	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	1.5 ± 0.3	2018-10-22
9119896	HEALTH	2018-10-16 @ 10:00 am	2018-10-19 @ 11:00 am	1.3 ± 0.3	2018-10-22
9119504	IT ROOM	2018-10-16 @ 11:00 am	2018-10-19 @ 12:00 pm	1.3 ± 0.3	2018-10-22
9119898	LIBRARY 1	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	1.2 ± 0.3	2018-10-22
9119899	LIBRARY 2	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	0.9 ± 0.3	2018-10-22
9119900	LIBRARY OFFICE	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	0.9 ± 0.3	2018-10-22
9119882	LIBRARY OFFICE 2	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	0.7 ± 0.3	2018-10-22
9119895	MAIN OFFICE	2018-10-16 @ 10:00 am	2018-10-19 @ 11:00 am	1.6 ± 0.3	2018-10-22
9119517	MUSIC PORTABLE	2018-10-16 @ 12:00 pm	2018-10-19 @ 12:00 pm	< 0.3	2018-10-22
9119894	PRINCIPAL OFFICE	2018-10-16 @ 10:00 am	2018-10-19 @ 11:00 am	0.7 ± 0.3	2018-10-22
9119507	ROOM 1	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	1.1 ± 0.3	2018-10-22
9119505	ROOM 1 DUP	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	1.0 ± 0.3	2018-10-22
9119890	ROOM 10	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	1.0 ± 0.3	2018-10-22
9119512	ROOM 11	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	1.3 ± 0.3	2018-10-22
9119511	ROOM 12	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	1.4 ± 0.3	2018-10-22
9119510	ROOM 12 DUP	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	1.4 ± 0.3	2018-10-22
9119521	ROOM 13	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	1.4 ± 0.3	2018-10-22
9119514	ROOM 14	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	1.6 ± 0.4	2018-10-22
9119528	ROOM 15	2018-10-16 @ 12:00 pm	2018-10-19 @ 11:00 am	1.6 ± 0.3	2018-10-22
9119518	ROOM 15 DUP	2018-10-16 @ 12:00 pm	2018-10-19 @ 11:00 am	1.8 ± 0.4	2018-10-22
9119522	ROOM 16	2018-10-16 @ 12:00 pm	2018-10-19 @ 11:00 am	3.1 ± 0.4	2018-10-22
9119515	ROOM 17	2018-10-16 @ 12:00 pm	2018-10-19 @ 11:00 am	1.6 ± 0.4	2018-10-22
9119530	ROOM 17 BLANK	2018-10-16 @ 12:00 pm	2018-10-19 @ 11:00 am	< 0.3	2018-10-22
9119529	ROOM 18	2018-10-16 @ 12:00 pm	2018-10-19 @ 11:00 am	2.1 ± 0.4	2018-10-22
9119527	ROOM 18 DUP	2018-10-16 @ 12:00 pm	2018-10-19 @ 11:00 am	2.0 ± 0.4	2018-10-22
9119519	ROOM 19	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	1.4 ± 0.3	2018-10-22
9119889	ROOM 2	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	0.8 ± 0.3	2018-10-22
9119520	ROOM 20	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	1.2 ± 0.3	2018-10-22

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October 22, 2018

**\*\* LABORATORY ANALYSIS REPORT \*\***

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Radon test result report for:  
**INDIAN HILLS**  
**MAIN**

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<b>Kit #</b>	<b>Room Id</b>	<b>Started</b>	<b>Ended</b>	<b>pCi/L</b>	<b>Analyzed</b>
9119513	ROOM 21	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	1.7 ± 0.4	2018-10-22
9119509	ROOM 27	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	1.7 ± 0.3	2018-10-22
9119508	ROOM 3	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	1.1 ± 0.3	2018-10-22
9119502	ROOM 4	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	1.0 ± 0.3	2018-10-22
9119503	ROOM 5	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	1.7 ± 0.4	2018-10-22
9119893	ROOM 6	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	1.6 ± 0.3	2018-10-22
9119892	ROOM 7	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	1.5 ± 0.3	2018-10-22
9119891	ROOM 7 BLANK	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	< 0.3	2018-10-22
9119501	ROOM 8	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	1.6 ± 0.3	2018-10-22
9119506	ROOM 9	2018-10-16 @ 11:00 am	2018-10-19 @ 11:00 am	1.1 ± 0.3	2018-10-22

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