



November 4, 2019

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
 Miller Big Picture
 440 SE Oak Street
 Hillsboro, Oregon
 PBS Project 23440.024, Phase 0004

Dear Mr. Peterson:

From October 29 to November 1, 2019, PBS Engineering and Environmental Inc. (PBS) performed short term radon testing at Miller Big Picture located at 440 SE Oak Street in Hillsboro, Oregon. The Miller Big Picture campus includes the main school building, a gymnasium and cafeteria building, and two modular buildings.

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 Miller Big Picture were 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 with any questions or comments.

Sincerely,

Dale Voeller, CHMM, CSP
Senior Project Manager

Attachment: AirChek, Inc Laboratory Analysis Report

Radon test result report for:
**MILLER BIG PICTURE
 MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9227861	ADMIN OFFICE	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	2.0 ± 0.4	2019-11-04
9227865	CAFETERIA	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	1.6 ± 0.4	2019-11-04
9227864	GYM 1	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	1.2 ± 0.3	2019-11-04
9227863	GYM 2	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	1.4 ± 0.3	2019-11-04
9227842	OFFICE 1	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	3.6 ± 0.5	2019-11-04
9227854	PRINCIPAL OFFICE	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	1.8 ± 0.4	2019-11-04
9227848	ROOM 104	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	2.4 ± 0.4	2019-11-04
9227855	ROOM 107	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	1.6 ± 0.3	2019-11-04
9227853	ROOM 108	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	1.3 ± 0.3	2019-11-04
9227846	ROOM 110	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	1.9 ± 0.4	2019-11-04
9227851	ROOM 110 BLANK	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	< 0.3	2019-11-04
9227852	ROOM 110 DUP	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	1.9 ± 0.4	2019-11-04
9227859	ROOM 112	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	1.8 ± 0.4	2019-11-04
9227847	ROOM 113	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	1.1 ± 0.3	2019-11-04
9227845	ROOM 114	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	1.3 ± 0.3	2019-11-04
9227844	ROOM 115	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	1.6 ± 0.3	2019-11-04
9227843	ROOM 116	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	1.3 ± 0.3	2019-11-04
9227857	ROOM 118	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	1.9 ± 0.4	2019-11-04
9227836	ROOM 119	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	1.1 ± 0.3	2019-11-04
9227841	ROOM 120	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	1.5 ± 0.3	2019-11-04
9227835	ROOM 122	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	1.9 ± 0.4	2019-11-04
9227858	ROOM 124	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	2.5 ± 0.4	2019-11-04
9227860	ROOM 125	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	1.6 ± 0.3	2019-11-04
9227850	ROOM 126	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	2.2 ± 0.4	2019-11-04
9227856	ROOM106	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	1.9 ± 0.4	2019-11-04
9227830	STAFF ROOM	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	2.5 ± 0.4	2019-11-04
9227849	STAFF ROOM DUP	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	2.4 ± 0.4	2019-11-04

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**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
**MILLER BIG PICTURE
ANNEX**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9227868	MODULAR 1	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	< 0.3	2019-11-04
9227869	MODULAR 1 BLANK	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	< 0.3	2019-11-04
9227867	MODULAR 1 DUP	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	< 0.3	2019-11-04
9227866	MODULAR 2	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	0.8 ± 0.3	2019-11-04

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

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**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
**MILLER BIG PICTURE
MODULAR 2**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9227870	OFFICE 1	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	0.9 ± 0.3	2019-11-04
9227873	OFFICE 2	2019-10-29 @ 6:00 pm	2019-11-01 @ 9:00 pm	0.9 ± 0.3	2019-11-04

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