



November 30, 2018

David Callaway  
David Douglas School District  
11300 NE Halsey Street  
Portland, Oregon 97220

Via email: david\_callaway@ddsd40.org

Regarding: District-Wide Radon Testing  
Mill Park Elementary School  
1900 SE 117th Avenue  
Portland, Oregon  
PBS Project 23179.065, Phase 0001

Dear Mr. Callaway:

From September 10 to 14, 2018, PBS Engineering and Environmental Inc. (PBS) performed short-term radon testing in the cafeteria, stage, and adjacent offices at Mill Park Elementary School, located at 1900 SE 117th Avenue in Portland, Oregon.

This testing was completed after adjustments and modifications had been made to the HVAC system in these areas.

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 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 that all short-term radon tests in these areas 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 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 503.935.5484 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

DSV:mo

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September 17, 2018

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

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Radon test result report for:  
**MILL PARK ES**  
**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>
9014902	140 - STAGE OFFICE	2018-09-10 @ 7:00 pm	2018-09-14 @ 6:00 am	3.3 ± 0.5	2018-09-17
9014909	147 - SUN OFFICE	2018-09-10 @ 7:00 pm	2018-09-14 @ 6:00 am	2.6 ± 0.4	2018-09-17
9014910	151 - OFFICE	2018-09-10 @ 7:00 pm	2018-09-14 @ 6:00 am	1.1 ± 0.3	2018-09-17
9014907	CAFETERIA - EAST	2018-09-10 @ 7:00 pm	2018-09-14 @ 6:00 am	2.1 ± 0.4	2018-09-17
9014908	CAFETERIA - WEST	2018-09-10 @ 7:00 pm	2018-09-14 @ 6:00 am	1.9 ± 0.4	2018-09-17
9014905	STAGE	2018-09-10 @ 7:00 pm	2018-09-14 @ 6:00 am	2.0 ± 0.4	2018-09-17

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