



March 8, 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
Ventura Park Elementary School
145 SE 117th Avenue
Portland, Oregon 97216
PBS Project 23179.043, Phase 0002

Dear Mr. Callaway:

From February 26 to March 1, 2018, PBS Engineering and Environmental Inc. (PBS) performed short-term radon testing at Ventura Park Elementary School located at 145 SE 117th Avenue in Portland, 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., 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. The following table lists all samples in which radon levels were found to be above the EPA action level.

Test Kits with Radon 4.0 pCi/L or Above

Test Kit Number	Sample location	Radon Level (pCi/L)
7958461	Main Office	6.1
7958472	Multipurpose 1	4.5
7958474	Principal Office	8.8
7958475	Work Room	4.5
7958476	Work Room-Duplicate	4.9
7958477	Faculty Lunch	4.6
7958478	9	5.2
7959497	Counselor	4.1

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 503.417.7694 or chris.boyce@pbsusa.com with any questions or comments.

Sincerely,



Chris Boyce
Project Manager

Attachment: AirChek, Inc., Laboratory Analysis Report

CB::lkn

Radon test result report for:
VENTURA PARK
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7958493	1	2018-02-26 @ 2:00 pm	2018-03-01 @ 3:00 pm	3.1 ± 0.4	2018-03-05
7958479	10	2018-02-26 @ 1:00 pm	2018-03-01 @ 3:00 pm	3.1 ± 0.5	2018-03-05
7958480	11	2018-02-26 @ 1:00 pm	2018-03-01 @ 3:00 pm	1.8 ± 0.4	2018-03-05
7958481	12	2018-02-26 @ 1:00 pm	2018-03-01 @ 3:00 pm	0.8 ± 0.3	2018-03-05
7958482	13	2018-02-26 @ 1:00 pm	2018-03-01 @ 3:00 pm	0.6 ± 0.3	2018-03-05
7958483	14	2018-02-26 @ 1:00 pm	2018-03-01 @ 3:00 pm	< 0.3	2018-03-05
7958484	15	2018-02-26 @ 1:00 pm	2018-03-01 @ 3:00 pm	1.1 ± 0.3	2018-03-05
7958485	16	2018-02-26 @ 2:00 pm	2018-03-01 @ 3:00 pm	< 0.3	2018-03-05
7958486	17	2018-02-26 @ 2:00 pm	2018-03-01 @ 3:00 pm	0.7 ± 0.4	2018-03-05
7958487	18	2018-02-26 @ 2:00 pm	2018-03-01 @ 3:00 pm	0.9 ± 0.3	2018-03-05
7958490	18 -DUP	2018-02-26 @ 2:00 pm	2018-03-01 @ 3:00 pm	< 0.3	2018-03-05
7958488	19	2018-02-26 @ 2:00 pm	2018-03-01 @ 3:00 pm	0.6 ± 0.3	2018-03-05
7958494	2	2018-02-26 @ 2:00 pm	2018-03-01 @ 3:00 pm	2.9 ± 0.4	2018-03-05
7958489	20	2018-02-26 @ 2:00 pm	2018-03-01 @ 3:00 pm	0.8 ± 0.3	2018-03-05
7958491	21	2018-02-26 @ 2:00 pm	2018-03-01 @ 3:00 pm	1.2 ± 0.4	2018-03-05
7958468	23	2018-02-26 @ 1:00 pm	2018-03-01 @ 3:00 pm	< 0.3	2018-03-05
7958467	24	2018-02-26 @ 1:00 pm	2018-03-01 @ 3:00 pm	< 0.3	2018-03-05
7958464	25	2018-02-26 @ 1:00 pm	2018-03-01 @ 3:00 pm	< 0.3	2018-03-05
7959495	26	2018-02-26 @ 2:00 pm	2018-03-01 @ 4:00 pm	0.8 ± 0.3	2018-03-05
7959496	26-DUP	2018-02-26 @ 2:00 pm	2018-03-01 @ 3:00 pm	0.9 ± 0.4	2018-03-05
7958465	27	2018-02-26 @ 1:00 pm	2018-03-01 @ 4:00 pm	1.1 ± 0.4	2018-03-05
7958466	27A	2018-02-26 @ 1:00 pm	2018-03-01 @ 4:00 pm	1.1 ± 0.3	2018-03-05
7958495	3	2018-02-26 @ 2:00 pm	2018-03-01 @ 3:00 pm	1.0 ± 0.3	2018-03-05
7958497	4	2018-02-26 @ 2:00 pm	2018-03-01 @ 3:00 pm	2.2 ± 0.4	2018-03-05
7958496	4 -DUP	2018-02-26 @ 2:00 pm	2018-03-01 @ 3:00 pm	1.8 ± 0.4	2018-03-05
7958498	5	2018-02-26 @ 2:00 pm	2018-03-01 @ 3:00 pm	2.8 ± 0.5	2018-03-05
7958499	6	2018-02-26 @ 2:00 pm	2018-03-01 @ 3:00 pm	2.0 ± 0.4	2018-03-05
7958500	7	2018-02-26 @ 2:00 pm	2018-03-01 @ 3:00 pm	1.6 ± 0.4	2018-03-05
7959490	8	2018-02-26 @ 2:00 pm	2018-03-01 @ 3:00 pm	1.9 ± 0.4	2018-03-05
7959491	8-DUP	2018-02-26 @ 2:00 pm	2018-03-01 @ 3:00 pm	1.7 ± 0.4	2018-03-05
7958478	9	2018-02-26 @ 1:00 pm	2018-03-01 @ 3:00 pm	5.2 ± 0.6	2018-03-05
7958460	BLANK 1	2018-02-26 @ 1:00 pm	2018-03-01 @ 4:00 pm	< 0.3	2018-03-05
7959489	BLANK 2	2018-02-26 @ 2:00 pm	2018-03-01 @ 3:00 pm	< 0.3	2018-03-05
7959497	COUNSELOR	2018-02-26 @ 2:00 pm	2018-03-01 @ 4:00 pm	4.1 ± 0.5	2018-03-05
7958459	CUSTODIAL OFFICE	2018-02-26 @ 1:00 pm	2018-03-01 @ 4:00 pm	2.7 ± 0.4	2018-03-05
7958477	FACULTY LUNCH	2018-02-26 @ 1:00 pm	2018-03-01 @ 3:00 pm	4.6 ± 0.5	2018-03-05
7958469	GYM 1	2018-02-26 @ 1:00 pm	2018-03-01 @ 4:00 pm	2.0 ± 0.4	2018-03-05

March 5, 2018

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
VENTURA PARK
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7958470	GYM 2	2018-02-26 @ 1:00 pm	2018-03-01 @ 4:00 pm	2.0 ± 0.4	2018-03-05
7958471	GYM OFFICE	2018-02-26 @ 1:00 pm	2018-03-01 @ 4:00 pm	3.1 ± 0.5	2018-03-05
7958492	HEALTH ROOM	2018-02-26 @ 2:00 pm	2018-03-01 @ 3:00 pm	2.0 ± 0.4	2018-03-05
7958463	LIBRARY	2018-02-26 @ 1:00 pm	2018-03-01 @ 3:00 pm	< 0.3	2018-03-05
7958461	MAIN OFFICE	2018-02-26 @ 1:00 pm	2018-03-01 @ 3:00 pm	6.1 ± 0.6	2018-03-05
7958472	MULTIPURPOSE 1	2018-02-26 @ 1:00 pm	2018-03-01 @ 4:00 pm	4.5 ± 0.5	2018-03-05
7958473	MULTIPURPOSE 2	2018-02-26 @ 1:00 pm	2018-03-01 @ 4:00 pm	3.9 ± 0.5	2018-03-05
7958462	PARENT RESOURCE	2018-02-26 @ 1:00 pm	2018-03-01 @ 3:00 pm	< 0.3	2018-03-05
7958474	PRINCIPAL OFFICE	2018-02-26 @ 1:00 pm	2018-03-01 @ 3:00 pm	8.8 ± 0.7	2018-03-05
7958475	WORK RM	2018-02-26 @ 1:00 pm	2018-03-01 @ 3:00 pm	4.5 ± 0.5	2018-03-05
7958476	WORK ROOM-DUP	2018-02-26 @ 1:00 pm	2018-03-01 @ 3:00 pm	4.9 ± 0.5	2018-03-05

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

March 5, 2018

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
VENTURA PARK
PORTABLES

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7959457	MUSIC	2018-02-26 @ 2:00 pm	2018-03-01 @ 3:00 pm	< 0.3	2018-03-05
7959458	MUSIC-DUP	2018-02-26 @ 2:00 pm	2018-03-01 @ 3:00 pm	< 0.3	2018-03-05
7959478	PORT. 2	2018-02-26 @ 2:00 pm	2018-03-01 @ 3:00 pm	< 0.3	2018-03-05

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