



February 16, 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
Gilbert Heights
12839 SE Holgate Boulevard
Portland, Oregon 97236
PBS Project 23179.043, Phase 0002

Dear Mr. Callaway:

From February 5 to 8, 2018, PBS Engineering and Environmental Inc. (PBS) performed short-term radon testing at Gilbert Heights School located at 12839 SE Holgate Boulevard in Portland, Oregon.

The Environmental Protection Agency (EPA) and Oregon Health Authority (OHA) recommend that buildings be tested for radon and that any detected 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 but three short-term radon tests at Gilbert Heights School were below 4.0 pCi/L. The following table lists the one sample 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)
7958394	Gym building, office 36	6.0
7958372	Main building, Thomas office	21.8
7958373	Main building, Thomas quiet room	20.8

Not all rooms were labeled with unique room numbers, so additional descriptions of the locations listed above are included below:

- "Office 36" in the gym building appears to have been a small storage room at the north end of the hall that has been converted to a part-time office. This office is directly across the hall from classroom 34.
- "Thomas office" in the main building is an office located in the northwest corner of the lower level, adjacent to the northwest stairwell.
- The "Thomas quiet room" in the main building is a small nook located in the northwest corner of the lower level accessed from "Thomas office" and is located below the northwest stairwell.

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 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: Air Chek, Inc. Laboratory Analysis Report

CB::rg

Radon test result report for:
**GILBERT HEIGHTS
 MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7958363	1	2018-02-05 @ 1:00 pm	2018-02-08 @ 11:00 am	0.8 ± 0.3	2018-02-12
7958364	2	2018-02-05 @ 1:00 pm	2018-02-08 @ 11:00 am	1.0 ± 0.3	2018-02-12
7958385	20	2018-02-05 @ 1:00 pm	2018-02-08 @ 12:00 pm	1.4 ± 0.4	2018-02-12
7958382	21	2018-02-05 @ 1:00 pm	2018-02-08 @ 12:00 pm	1.7 ± 0.4	2018-02-12
7958381	22	2018-02-05 @ 1:00 pm	2018-02-08 @ 12:00 pm	1.0 ± 0.3	2018-02-12
7958380	23	2018-02-05 @ 1:00 pm	2018-02-08 @ 12:00 pm	1.4 ± 0.3	2018-02-12
7958365	3	2018-02-05 @ 1:00 pm	2018-02-08 @ 11:00 am	1.0 ± 0.3	2018-02-12
7958366	4	2018-02-05 @ 1:00 pm	2018-02-08 @ 11:00 am	1.1 ± 0.4	2018-02-12
7958367	5	2018-02-05 @ 1:00 pm	2018-02-08 @ 11:00 am	1.4 ± 0.4	2018-02-12
7958368	6	2018-02-05 @ 1:00 pm	2018-02-08 @ 11:00 am	1.9 ± 0.4	2018-02-12
7958369	7	2018-02-05 @ 1:00 pm	2018-02-08 @ 11:00 am	1.7 ± 0.4	2018-02-12
7958370	8	2018-02-05 @ 1:00 pm	2018-02-08 @ 11:00 am	1.7 ± 0.4	2018-02-12
7958371	9	2018-02-05 @ 1:00 pm	2018-02-08 @ 11:00 am	2.1 ± 0.4	2018-02-12
7958357	BLANK	2018-02-05 @ 12:00 pm	2018-02-08 @ 11:00 am	< 0.3	2018-02-12
7958374	CAFETERIA-1	2018-02-05 @ 1:00 pm	2018-02-08 @ 11:00 am	2.1 ± 0.4	2018-02-12
7958375	CAFETERIA-2	2018-02-05 @ 1:00 pm	2018-02-08 @ 11:00 am	1.7 ± 0.4	2018-02-12
7958360	COUNSELOR	2018-02-05 @ 1:00 pm	2018-02-08 @ 11:00 am	1.4 ± 0.4	2018-02-12
7958361	CUSTODIAL OFFICE	2018-02-05 @ 1:00 pm	2018-02-08 @ 11:00 am	3.9 ± 0.5	2018-02-12
7958383	LIBRARY	2018-02-05 @ 1:00 pm	2018-02-08 @ 12:00 pm	1.6 ± 0.4	2018-02-12
7958384	LIBRARY A	2018-02-05 @ 1:00 pm	2018-02-08 @ 12:00 pm	1.5 ± 0.4	2018-02-12
7958386	LIBRARY B	2018-02-05 @ 1:00 pm	2018-02-08 @ 12:00 pm	1.4 ± 0.3	2018-02-12
7958388	LIBRARY C	2018-02-05 @ 1:00 pm	2018-02-08 @ 12:00 pm	1.8 ± 0.3	2018-02-12
7958356	MAIN OFFICE	2018-02-05 @ 12:00 pm	2018-02-08 @ 11:00 am	1.3 ± 0.4	2018-02-12
7958379	MUSIC	2018-02-05 @ 1:00 pm	2018-02-08 @ 12:00 pm	2.5 ± 0.4	2018-02-12
7958362	PRINCIPAL	2018-02-05 @ 1:00 pm	2018-02-08 @ 12:00 pm	1.1 ± 0.3	2018-02-12
7958377	STAFF ROOM	2018-02-05 @ 1:00 pm	2018-02-08 @ 11:00 am	3.0 ± 0.4	2018-02-12
7958378	STAFF ROOM-DUP	2018-02-05 @ 1:00 pm	2018-02-08 @ 11:00 am	2.9 ± 0.5	2018-02-12
7958376	STAGE	2018-02-05 @ 1:00 pm	2018-02-08 @ 11:00 am	2.1 ± 0.4	2018-02-12
7958372	THOMAS OFFICE	2018-02-05 @ 1:00 pm	2018-02-08 @ 11:00 am	21.8 ± 1.3	2018-02-12
7958373	THOMAS QUIET RM	2018-02-05 @ 1:00 pm	2018-02-08 @ 11:00 am	20.8 ± 1.2	2018-02-12
7958358	WORK RM	2018-02-05 @ 1:00 pm	2018-02-08 @ 11:00 am	1.3 ± 0.4	2018-02-12
7958359	WORK RM-DUP	2018-02-05 @ 1:00 pm	2018-02-08 @ 11:00 am	1.1 ± 0.3	2018-02-12

February 13, 2018

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
**GILBERT HEIGHTS
GYM**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7958387	31	2018-02-05 @ 2:00 pm	2018-02-08 @ 12:00 pm	0.8 ± 0.3	2018-02-12
7958390	32	2018-02-05 @ 2:00 pm	2018-02-08 @ 12:00 pm	0.7 ± 0.3	2018-02-12
7958391	33	2018-02-05 @ 2:00 pm	2018-02-08 @ 12:00 pm	0.8 ± 0.3	2018-02-12
7958393	33 -DUP	2018-02-05 @ 2:00 pm	2018-02-08 @ 12:00 pm	< 0.3	2018-02-12
7958392	34	2018-02-05 @ 2:00 pm	2018-02-08 @ 12:00 pm	0.6 ± 0.3	2018-02-12
7958394	36	2018-02-05 @ 2:00 pm	2018-02-08 @ 12:00 pm	6.0 ± 0.6	2018-02-12
7958389	37	2018-02-05 @ 2:00 pm	2018-02-08 @ 12:00 pm	1.5 ± 0.4	2018-02-12
7958398	BLANK	2018-02-05 @ 2:00 pm	2018-02-08 @ 12:00 pm	< 0.3	2018-02-12
7958396	GYM 1	2018-02-05 @ 2:00 pm	2018-02-08 @ 12:00 pm	2.0 ± 0.4	2018-02-12
7958397	GYM 2	2018-02-05 @ 2:00 pm	2018-02-08 @ 12:00 pm	2.9 ± 0.4	2018-02-12
7958395	GYM OFFICE	2018-02-05 @ 2:00 pm	2018-02-08 @ 12:00 pm	3.8 ± 0.5	2018-02-12

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