



March 25, 2020

Joe Crelier
Director of Risk Management
Portland Public Schools
PO Box 3107
Portland, Oregon 97208

Via email: jcrelier@pps.net

Regarding: Radon Testing
Roosevelt High School
6941 N Central Street
Portland, Oregon 97203
PBS Project 6500.825, Phase 0001

Dear Mr. Crelier:

From March 9 to March 12, 2020, PBS Engineering and Environmental Inc. (PBS) performed short-term radon testing at Roosevelt High School, located at 6941 N Central Street in Portland, Oregon.

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 at Roosevelt High School 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 503.417.7724 or marli.heininger@pbsusa.com with any questions or comments.

Sincerely,



Marli Heininger
2020.03.25
12:19:16 -07'00'

Marli Heininger
Industrial Hygienist

Attachment: Air Chek Laboratory Analysis Report

MH:mo

Radon test result report for:**ROOSEVELT HS
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9408009	ATTENDANCE OFFICE	2020-03-09 @ 11:00 am	2020-03-12 @ 12:00 pm	< 0.3	2020-03-14
9408037	AUDITORIUM 1	2020-03-09 @ 12:00 pm	2020-03-12 @ 10:00 am	0.8 ± 0.3	2020-03-13
9408038	AUDITORIUM 2	2020-03-09 @ 12:00 pm	2020-03-12 @ 10:00 am	1.0 ± 0.3	2020-03-13
9408040	BLACK BOX 009	2020-03-09 @ 12:00 pm	2020-03-12 @ 10:00 am	0.8 ± 0.3	2020-03-13
9408025	CERAMICS 085	2020-03-09 @ 12:00 pm	2020-03-12 @ 10:00 am	1.1 ± 0.3	2020-03-13
9408042	CLASSROOM 015	2020-03-09 @ 12:00 pm	2020-03-12 @ 11:00 am	0.6 ± 0.3	2020-03-13
9408041	CLASSROOM 017	2020-03-09 @ 12:00 pm	2020-03-12 @ 10:00 am	< 0.3	2020-03-13
9408032	CLASSROOM 019B	2020-03-09 @ 12:00 pm	2020-03-12 @ 10:00 am	< 0.3	2020-03-13
9408033	CLASSROOM 019B BLANK	2020-03-09 @ 12:00 pm	2020-03-12 @ 10:00 am	< 0.3	2020-03-13
9408048	CLASSROOM 033	2020-03-09 @ 1:00 pm	2020-03-12 @ 11:00 am	< 0.3	2020-03-13
9408028	CLASSROOM 084	2020-03-09 @ 12:00 pm	2020-03-12 @ 11:00 am	0.7 ± 0.3	2020-03-13
9408027	CLASSROOM 086	2020-03-09 @ 12:00 pm	2020-03-12 @ 11:00 am	< 0.3	2020-03-14
9408026	CLASSROOM 087	2020-03-09 @ 12:00 pm	2020-03-12 @ 11:00 am	1.8 ± 0.3	2020-03-13
9408022	CLASSROOM 133	2020-03-09 @ 12:00 pm	2020-03-12 @ 11:00 am	< 0.3	2020-03-13
9408029	COMPUTER LAB 088	2020-03-09 @ 12:00 pm	2020-03-12 @ 11:00 am	0.7 ± 0.3	2020-03-13
9408043	CONFERENCE ROOM 016	2020-03-09 @ 12:00 pm	2020-03-12 @ 10:00 am	< 0.3	2020-03-13
9408085	CUSTODIAN OFFICE 083	2020-03-09 @ 2:00 pm	2020-03-12 @ 10:00 am	0.8 ± 0.3	2020-03-13
9408030	FOOD PANTRY 091	2020-03-09 @ 12:00 pm	2020-03-12 @ 10:00 am	2.4 ± 0.3	2020-03-13
9408019	HEAD START ROOM 100B	2020-03-09 @ 11:00 am	2020-03-12 @ 11:00 am	< 0.3	2020-03-13
9408020	HEAD START ROOM 107F	2020-03-09 @ 11:00 am	2020-03-12 @ 11:00 am	< 0.3	2020-03-13
9408018	HEALTH ROOM 106	2020-03-09 @ 11:00 am	2020-03-12 @ 11:00 am	< 0.3	2020-03-13
9408034	INDUSTRIAL ARTS	2020-03-09 @ 12:00 pm	2020-03-12 @ 10:00 am	< 0.3	2020-03-13
9408035	INDUSTRIAL ARTS DUP	2020-03-09 @ 12:00 pm	2020-03-12 @ 10:00 am	< 0.3	2020-03-13
9408044	KITCHEN OFFICE	2020-03-09 @ 12:00 pm	2020-03-12 @ 10:00 am	< 0.3	2020-03-13
9408054	MAIN GYM 1	2020-03-09 @ 1:00 pm	2020-03-12 @ 10:00 am	< 0.3	2020-03-13
9408055	MAIN GYM 2	2020-03-09 @ 1:00 pm	2020-03-12 @ 10:00 am	< 0.3	2020-03-13
9408001	MAIN OFFICE	2020-03-09 @ 11:00 am	2020-03-12 @ 10:00 am	< 0.3	2020-03-13
9408002	MAIN OFFICE DUP	2020-03-09 @ 11:00 am	2020-03-12 @ 10:00 am	< 0.3	2020-03-13
9408017	NURSE OFFICE 108	2020-03-09 @ 11:00 am	2020-03-12 @ 11:00 am	< 0.3	2020-03-13
9408039	ROOM 013	2020-03-09 @ 12:00 pm	2020-03-12 @ 10:00 am	1.0 ± 0.3	2020-03-13
9408036	ROOM 019C	2020-03-09 @ 12:00 pm	2020-03-12 @ 10:00 am	< 0.3	2020-03-13
9408047	ROOM 034	2020-03-09 @ 1:00 pm	2020-03-12 @ 11:00 am	0.8 ± 0.3	2020-03-13
9408083	ROOM 035	2020-03-09 @ 2:00 pm	2020-03-12 @ 11:00 am	0.8 ± 0.3	2020-03-13
9408045	ROOM 036	2020-03-09 @ 1:00 pm	2020-03-12 @ 11:00 am	0.6 ± 0.3	2020-03-13
9408046	ROOM 037	2020-03-09 @ 1:00 pm	2020-03-12 @ 11:00 am	< 0.3	2020-03-13
9408066	ROOM 051	2020-03-09 @ 1:00 pm	2020-03-12 @ 11:00 am	< 0.3	2020-03-13
9408067	ROOM 051 BLANK	2020-03-09 @ 1:00 pm	2020-03-12 @ 11:00 am	< 0.3	2020-03-13

Radon test result report for:**ROOSEVELT HS
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9408065	ROOM 053	2020-03-09 @ 1:00 pm	2020-03-12 @ 11:00 am	< 0.3	2020-03-13
9408060	ROOM 056	2020-03-09 @ 1:00 pm	2020-03-12 @ 11:00 am	< 0.3	2020-03-13
9408061	ROOM 057	2020-03-09 @ 1:00 pm	2020-03-12 @ 11:00 am	< 0.3	2020-03-13
9408062	ROOM 059	2020-03-09 @ 1:00 pm	2020-03-12 @ 11:00 am	< 0.3	2020-03-13
9408064	ROOM 060	2020-03-09 @ 1:00 pm	2020-03-12 @ 11:00 am	< 0.3	2020-03-13
9408063	ROOM 061	2020-03-09 @ 1:00 pm	2020-03-12 @ 11:00 am	< 0.3	2020-03-13
9408053	ROOM 078	2020-03-09 @ 1:00 pm	2020-03-12 @ 10:00 am	< 0.3	2020-03-13
9408051	ROOM 079	2020-03-09 @ 1:00 pm	2020-03-12 @ 10:00 am	< 0.3	2020-03-13
9408052	ROOM 079 BLANK	2020-03-09 @ 1:00 pm	2020-03-12 @ 10:00 am	< 0.3	2020-03-13
9408031	ROOM 089	2020-03-09 @ 12:00 pm	2020-03-12 @ 10:00 am	1.5 ± 0.3	2020-03-13
9408021	ROOM 102	2020-03-09 @ 12:00 pm	2020-03-12 @ 11:00 am	< 0.3	2020-03-13
9408004	ROOM 103B	2020-03-09 @ 11:00 am	2020-03-12 @ 12:00 pm	< 0.3	2020-03-13
9408005	ROOM 103B BLANK	2020-03-09 @ 11:00 am	2020-03-12 @ 12:00 pm	< 0.3	2020-03-13
9408006	ROOM 103C	2020-03-09 @ 11:00 am	2020-03-12 @ 12:00 pm	< 0.3	2020-03-14
9408007	ROOM 103D	2020-03-09 @ 11:00 am	2020-03-12 @ 12:00 pm	< 0.3	2020-03-14
9408008	ROOM 103E	2020-03-09 @ 11:00 am	2020-03-12 @ 12:00 pm	< 0.3	2020-03-14
9408003	ROOM 103H	2020-03-09 @ 11:00 am	2020-03-12 @ 12:00 pm	< 0.3	2020-03-14
9408010	ROOM 105B	2020-03-09 @ 11:00 am	2020-03-12 @ 12:00 pm	< 0.3	2020-03-14
9408011	ROOM 105C	2020-03-09 @ 11:00 am	2020-03-12 @ 12:00 pm	< 0.3	2020-03-13
9408012	ROOM 105D	2020-03-09 @ 11:00 am	2020-03-12 @ 12:00 pm	< 0.3	2020-03-13
9408014	ROOM 105E	2020-03-09 @ 11:00 am	2020-03-12 @ 12:00 pm	< 0.3	2020-03-14
9408086	ROOM 105F	2020-03-09 @ 2:00 pm	2020-03-12 @ 12:00 pm	< 0.3	2020-03-13
9408013	ROOM 105F1	2020-03-09 @ 11:00 am	2020-03-12 @ 12:00 pm	< 0.3	2020-03-14
9408068	ROOM 109	2020-03-09 @ 2:00 pm	2020-03-12 @ 11:00 am	< 0.3	2020-03-13
9408069	ROOM 109 DUP	2020-03-09 @ 2:00 pm	2020-03-12 @ 11:00 am	< 0.3	2020-03-14
9408070	ROOM 109B	2020-03-09 @ 2:00 pm	2020-03-12 @ 11:00 am	< 0.3	2020-03-13
9408071	ROOM 109C	2020-03-09 @ 2:00 pm	2020-03-12 @ 12:00 pm	< 0.3	2020-03-13
9408072	ROOM 109D	2020-03-09 @ 2:00 pm	2020-03-12 @ 12:00 pm	< 0.3	2020-03-13
9408073	ROOM 109E	2020-03-09 @ 2:00 pm	2020-03-12 @ 12:00 pm	< 0.3	2020-03-13
9408074	ROOM 109F	2020-03-09 @ 2:00 pm	2020-03-12 @ 12:00 pm	< 0.3	2020-03-14
9408077	ROOM 109G	2020-03-09 @ 2:00 pm	2020-03-12 @ 12:00 pm	< 0.3	2020-03-13
9408075	ROOM 109H	2020-03-09 @ 2:00 pm	2020-03-12 @ 12:00 pm	< 0.3	2020-03-13
9408082	ROOM 109L	2020-03-09 @ 2:00 pm	2020-03-12 @ 11:00 am	< 0.3	2020-03-14
9408024	ROOM 109M	2020-03-09 @ 12:00 pm	2020-03-12 @ 11:00 am	< 0.3	2020-03-13
9408081	ROOM 109N	2020-03-09 @ 2:00 pm	2020-03-12 @ 11:00 am	< 0.3	2020-03-14
9408080	ROOM 109P	2020-03-09 @ 2:00 pm	2020-03-12 @ 11:00 am	< 0.3	2020-03-14
9408079	ROOM 109Q	2020-03-09 @ 2:00 pm	2020-03-12 @ 11:00 am	< 0.3	2020-03-14

March 14, 2020

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

**ROOSEVELT HS
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9408078	ROOM 109R	2020-03-09 @ 2:00 pm	2020-03-12 @ 12:00 pm	< 0.3	2020-03-14
9408076	ROOM 109S	2020-03-09 @ 2:00 pm	2020-03-12 @ 11:00 am	< 0.3	2020-03-13
9408023	ROOM 114	2020-03-09 @ 12:00 pm	2020-03-12 @ 11:00 am	< 0.3	2020-03-13
9408084	ROOM 35 DUP	2020-03-09 @ 2:00 pm	2020-03-12 @ 11:00 am	0.5 ± 0.3	2020-03-13
9408056	SMALL GYM 1	2020-03-09 @ 1:00 pm	2020-03-12 @ 10:00 am	< 0.3	2020-03-13
9408016	STAFD ROOM 104 DUP	2020-03-09 @ 11:00 am	2020-03-12 @ 11:00 am	< 0.3	2020-03-13
9408015	STAFF ROOM 104	2020-03-09 @ 11:00 am	2020-03-12 @ 11:00 am	< 0.3	2020-03-13
9408049	STEM LAB 078D	2020-03-09 @ 1:00 pm	2020-03-12 @ 11:00 am	< 0.3	2020-03-13
9408050	STEM LAB 078D DUP	2020-03-09 @ 1:00 pm	2020-03-12 @ 11:00 am	< 0.3	2020-03-13
9408059	TRAI ING ROOM 068 DUP	2020-03-09 @ 1:00 pm	2020-03-12 @ 10:00 am	< 0.3	2020-03-13
9408058	TRAINING ROOM 068	2020-03-09 @ 1:00 pm	2020-03-12 @ 10:00 am	< 0.3	2020-03-13

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