



September 16, 2019

Rachel Hopper  
Reynolds School District  
1204 NE 201st Avenue  
Fairview, Oregon 97024

Via email: RHopper@rsd7.net

Regarding: Follow-Up Radon Testing  
Glenfair Elementary School  
15300 NE Glisan Street  
Portland, Oregon  
PBS Project 23514.025, Phase 0003

Dear Ms. Hopper:

PBS Engineering and Environmental Inc. (PBS) performed short-term radon testing from February 12 through 15, 2019 and long-term radon testing from February 12 through May 24, 2019, at Glenfair Elementary School located at 15300 NE Glisan Street in Portland, Oregon. This was performed following initial short-term radon testing. Results of the initial testing are detailed in a report dated April 23, 2019.

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. OHA requires 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).

Based on this, PBS performed both follow-up short and long-term testing of all spaces with initial results exceeding 4.0 pCi/L. Testing was performed using Air Chek, Inc., brand single-use, short-term radon test kits and Alpha Track Long-Term test kits as appropriate.

The following table lists results of these sampling events:

**Short- and Long-Term Test Results**

<b>Test Kit Number</b>	<b>Sample Location</b>	<b>Radon Level (pCi/L)</b>	<b>Test Type</b>
9120459, 9120460, 9120460	Gym	3.5–4.7	Short-Term
345558	Mr. Kinyon Room	3.0	Long-Term
345567, 345574	Ms. Kendall Room	2.1–2.4	Long-Term
345564	Speech Room	4.1	Long-Term
345553	Room 1	2.1	Long-Term
345566	Room 23	2.0	Long-Term
345559	Room 23 Office	2.0	Long-Term
345623	Room 33	4.7	Long-Term

See the attached laboratory analysis report for more details.

**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 971.284.7762 or joel.mccarthy@pbsusa.com with any questions or comments.

Sincerely,

Joel McCarthy  
Project Manager

Attachment: Air Chek Laboratory Analysis Reports

JM:mo

Kit Number	Start Date	Start Time	End Date	End Time	Temperature	Facility	Building	Room	Project ID	Floor	Result	Variance	Analysis Notes	Analysis Date	%Moisture
9120444	2019-02-12	7:00 pm	2019-02-15	5:00 pm	70	GLENFAIR	MAIN	GYM 2 BLANK	REYNOLDS SD	1	< 0.3	0.4		2019-02-19	5.2
9120459	2019-02-12	7:00 pm	2019-02-15	5:00 pm	70	GLENFAIR	MAIN	GYM 2 DUP	REYNOLDS SD	1	4.7	0.6		2019-02-19	4.5
9120460	2019-02-12	7:00 pm	2019-02-15	5:00 pm	70	GLENFAIR	MAIN	GYM 1	REYNOLDS SD	1	3.7	0.5		2019-02-19	5.2
9120462	2019-02-12	7:00 pm	2019-02-15	5:00 pm	70	GLENFAIR	MAIN	GYM 2	REYNOLDS SD	1	3.5	0.5		2019-02-19	5.1

Bulk\_Spreadsheet\_Temp\_AECL

Detector Number	Start Date	End Date	Check-In Date	Time	Analysis Date	Bq/cu M	Uncertainty	BqDays/Cu M	pCi/L	pCiDays/L	MA - Street	MA - Street Address 2	MA - City	MA - State	MA - Zip	MA - ZipPl	MA - County	MA - Country	TL - Street Address 1	TL - Room Type
345558	2/12/2019	5/24/2019	6/5/2019		6/6/2019	111	± 5%	11142.74901	3.0	301.1553787	4412 SW Corbett Ave.		Portland	Oregon	97239		Multnomah	USA	15300 NE Gilsan St.	Mr. Kinyon Room
345564	2/12/2019	5/24/2019	6/5/2019		6/6/2019	152	± 4%	15368.11375	4.1	415.3544256	4412 SW Corbett Ave.		Portland	Oregon	97239		Multnomah	USA	15300 NE Gilsan St.	Speech Room
345553	2/12/2019	5/24/2019	6/5/2019		6/6/2019	78	± 6%	7813.304704	2.1	211.1703974	4412 SW Corbett Ave.		Portland	Oregon	97239		Multnomah	USA	15300 NE Gilsan St.	Room 1
345574	2/12/2019	5/24/2019	6/5/2019		6/6/2019	89	± 5%	8872.249371	2.4	239.7905235	4412 SW Corbett Ave.		Portland	Oregon	97239		Multnomah	USA	15300 NE Gilsan St.	MS. Kendall Room DU
345559	2/12/2019	5/24/2019	6/5/2019		6/6/2019	74	± 6%	7628.454497	2.0	206.1744459	4412 SW Corbett Ave.		Portland	Oregon	97239		Multnomah	USA	15300 NE Gilsan St.	Room 23 Office
345567	2/12/2019	5/24/2019	6/5/2019		6/6/2019	78	± 6%	7856.01229	2.1	212.3246565	4412 SW Corbett Ave.		Portland	Oregon	97239		Multnomah	USA	15300 NE Gilsan St.	MS. Kendall Room
345566	2/12/2019	5/24/2019	6/5/2019		6/6/2019	74	± 6%	7585.846534	2.0	205.0228793	4412 SW Corbett Ave.		Portland	Oregon	97239		Multnomah	USA	15300 NE Gilsan St.	Room 23
345623	2/12/2019	5/24/2019	6/5/2019		6/6/2019	174	± 4%	17603.99323	4.7	475.7836008	4412 SW Corbett Ave.		Portland	Oregon	97239		Multnomah	USA	15300 NE Gilsan St.	Room 33



6312 West Oakton Street  
Morton Grove, IL 60053-2723  
847-965-1999  
Fax 847-965-1991

June 07, 2019

PBS  
Nick Phillips  
4412 SW Corbett Ave.  
Portland, Oregon 97239  
USA

### Alpha Track Radon Test Results

Detector Number	pCi/L	Test Location	Test Address	Start Date	End Date	Note*
345553	2.1 ± 6%	Room 1	15300 NE Gilsan St. Portland, Oregon 97230	2/12/2019	5/24/2019	
345555	1.2 ± 7%	Room 29	17200 SE Alder St. Portland, Oregon 97233	2/12/2019	5/24/2019	
345556	0.9 ± 9%	Room 30	17200 SE Alder St. Portland, Oregon 97233	2/12/2019	5/24/2019	
345558	3.0 ± 5%	Mr. Kinyon Room	15300 NE Gilsan St. Portland, Oregon 97230	2/12/2019	5/24/2019	
345559	2.0 ± 6%	Room 23 Office	15300 NE Gilsan St. Portland, Oregon 97230	2/12/2019	5/24/2019	
345560	1.2 ± 7%	HEALTH ROOM	17200 SE Alder St. Portland, Oregon 97233	2/12/2019	5/24/2019	
345561	1.1 ± 8%	Room 25	17200 SE Alder St. Portland, Oregon 97233	2/12/2019	5/24/2019	
345562	1.1 ± 8%	Room 7 OFFICE	17200 SE Alder St. Portland, Oregon 97233	2/12/2019	5/24/2019	

Analytical results showing the radon concentration relate only to the device(s) tested in the condition as received by RSSI. Results were calculated based on information provided by the client.

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Detector Number	pCi/L	Test Location	Test Address	Start Date	End Date	Note*
345563	1.1 ± 8%	Room 7 OFFICE DUP	17200 SE Alder St. Portland, Oregon 97233	2/12/2019	5/24/2019	
345564	4.1 ± 4%	Speech Room	15300 NE Gilsan St. Portland, Oregon 97230	2/12/2019	5/24/2019	
345565	1.1 ± 8%	Room 26	17200 SE Alder St. Portland, Oregon 97233	2/12/2019	5/24/2019	
345566	2.0 ± 6%	Room 23	15300 NE Gilsan St. Portland, Oregon 97230	2/12/2019	5/24/2019	
345567	2.1 ± 6%	MS. Kendall Room	15300 NE Gilsan St. Portland, Oregon 97230	2/12/2019	5/24/2019	
345568	1.1 ± 8%	Room 5	17200 SE Alder St. Portland, Oregon 97233	2/12/2019	5/24/2019	
345569	1.3 ± 7%	Room 28	17200 SE Alder St. Portland, Oregon 97233	2/12/2019	5/24/2019	
345570	1.0 ± 8%	Library 1	17200 SE Alder St. Portland, Oregon 97233	2/12/2019	5/24/2019	
345571	1.2 ± 7%	Computer Room by Library	17200 SE Alder St. Portland, Oregon 97233	2/12/2019	5/24/2019	
345572	1.6 ± 7%	Room 13	17200 SE Alder St. Portland, Oregon 97233	2/12/2019	5/24/2019	
345573	1.0 ± 8%	Room 24	17200 SE Alder St. Portland, Oregon 97233	2/12/2019	5/24/2019	
345574	2.4 ± 5%	MS. Kendall Room DUP	15300 NE Gilsan St. Portland, Oregon 97230	2/12/2019	5/24/2019	

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Detector Number	pCi/L	Test Location	Test Address	Start Date	End Date	Note*
345575	1.1 ± 8%	Room 12	17200 SE Alder St. Portland, Oregon 97233	2/19/2019	5/24/2019	
345607	1.0 ± 8%	Room 15	17200 SE Alder St. Portland, Oregon 97233	2/12/2019	5/24/2019	
345610	1.0 ± 8%	Room 14	17200 SE Alder St. Portland, Oregon 97233	2/12/2019	5/24/2019	
345622	0.9 ± 9%	Room 27	17200 SE Alder St. Portland, Oregon 97233	2/12/2019	5/24/2019	1,
345623	4.7 ± 4%	Room 33	15300 NE Gilsan St. Portland, Oregon 97230	2/12/2019	5/24/2019	
345625	1.1 ± 8%	Library 2	17200 SE Alder St. Portland, Oregon 97233	2/12/2019	5/24/2019	
345626	1.0 ± 8%	Room 23	17200 SE Alder St. Portland, Oregon 97233	2/12/2019	5/24/2019	
345641	0.9 ± 9%	Room 18	17200 SE Alder St. Portland, Oregon 97233	2/12/2019	5/24/2019	
345649	1.1 ± 8%	Room 19	17200 SE Alder St. Portland, Oregon 97233	2/12/2019	5/24/2019	
384007	0.4 ± 12%	Room 12 DUP	17200 SE Alder St. Portland, Oregon 97233	2/19/2019	5/24/2019	

Analyzed By:



Elektra Musich  
Radon Analyst

06/06/ 2019

Analysis Date

\*\*\*END REPORT\*\*\*

\* 1-Broken Seal, 2-Damaged Filter, 3-Loose Test Material, 4-Missing Test Material, 5-Missing End Date, 6-Missing Start Date, 7-Less Than 8 Days, 8-Past Expiration Date, 9-Missing Both Dates, NA-No applicable notes

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