



ENVIRONMENTAL CONSULTING

August 3, 2022

Mrs. Shawn Christensen
Tigard Tualatin School District
6960 SW Sandburg
Tigard, Oregon 97223

RADON TESTING AT OLD TEMPLETON ELEMENTARY SCHOOL IN TIGARD OREGON

Dear Mrs. Christensen:

At your request Apex Environmental collected samples for radon analysis at the old Templeton ES located at 9500 SW Murdock Street in Tigard, Oregon. This samples were collected for a period of approximately 72 hours using activated carbon short term kits. Short term radon test kits measure radon over a period of 2-4 days. The short-term kits utilized use a container that contains a quantity of granular activated charcoal. The charcoal absorbs the radon gas entering the container from the surrounding air. At the end of the testing period the container was sealed and set to Air Chek, Inc. for analysis. Radon levels reported by Air Chek were below the EPA corrective action recommendations (see attached table). Based upon these results follow-up testing or corrective action would not be required.

All testing was performed in accordance with the TTSD Radon Sampling Plan and the ANSI Protocol for Conducting Measurements of Radon Decay Products in Schools and Large Buildings (copyright 2015). Locations for testing were defined by the school district. Duplicate tests were performed at a rate of 10% in order to determine the reproducibility of the test and laboratory analysis. Field blank tests were taken at rate of 5%. Blanks are used to determine if the test kits have been contaminated during storage in order to maintain efficacy.

The US EPA action level for indoor radon is 4.0 pCi/L. The EPA indicates that there is little short-term risk, with test results all under the detection level of 1.5 pCi/L. However, because radon levels fluctuate daily, as well as seasonally, you may want to retest during another season. Radon levels fluctuate so short-term test results may not be indicative of the true long-term average. Additionally, if you make any structural changes or start to use a lower level of the building more frequently, you should test again

If you have any questions or need anything further, please feel free to call me.

Sincerely,

Jose Godínez

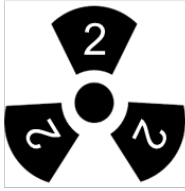
Radon measurement technician

P8834 / TULLA STOCKER

Kit Number	Start Date	Start Time	End Date	End Time	Temp.	Facility	Building	Room	Project ID	Floor	Result
7371038	2022-07-22	9:00 am	2022-07-25	8:00 am	70			KINETIC LEARNING 1	NEW TEMPLETON	3	0.5
7371039	2022-07-22	9:00 am	2022-07-25	8:00 am	70			STORAGE 121	NEW TEMPLETON	3	0.8
7371040	2022-07-22	9:00 am	2022-07-25	8:00 am	70			ROOM 123	NEW TEMPLETON	3	1.4
7371041	2022-07-22	9:00 am	2022-07-25	8:00 am	70			STAFF ROOM	NEW TEMPLETON	3	1.1
7371042	2022-07-22	9:00 am	2022-07-25	8:00 am	70			KINETIC LEARNING 2	NEW TEMPLETON	3	0.8
7371043	2022-07-22	9:00 am	2022-07-25	8:00 am	70			MAIN OFFICE	NEW TEMPLETON	3	0.8
7371044	2022-07-22	9:00 am	2022-07-25	8:00 am	70			WORK ROOM	NEW TEMPLETON	3	1.2
7371045	2022-07-22	9:00 am	2022-07-25	8:00 am	70			MEETING ROOM 218	NEW TEMPLETON	3	< 0.3
7371046	2022-07-22	9:00 am	2022-07-25	8:00 am	70			FAMILY AREA	NEW TEMPLETON	3	< 0.3
7371047	2022-07-22	9:00 am	2022-07-25	8:00 am	70			HEALTH 103	NEW TEMPLETON	3	1.7
7371048	2022-07-22	9:00 am	2022-07-25	8:00 am	70			CONFERENCE ROOM 1	NEW TEMPLETON	3	0.5
7371049	2022-07-22	9:00 am	2022-07-25	8:00 am	70			CONFERENCE ROOM 2	NEW TEMPLETON	3	< 0.3
7371050	2022-07-22	9:00 am	2022-07-25	8:00 am	70			ROOM 108	NEW TEMPLETON	3	< 0.3
7371051	2022-07-22	9:00 am	2022-07-25	8:00 am	70			ROOM 109	NEW TEMPLETON	3	< 0.3
7371052	2022-07-22	9:00 am	2022-07-25	8:00 am	70			ROOM 110	NEW TEMPLETON	3	< 0.3
7371053	2022-07-22	9:00 am	2022-07-25	8:00 am	70			MEETING ROOM 218 2	NEW TEMPLETON	3	< 0.3
7371054	2022-07-22	9:00 am	2022-07-25	8:00 am	70			BOILER ROOM	NEW TEMPLETON	3	0.6
7371055	2022-07-22	9:00 am	2022-07-25	8:00 am	70			HALLWAY BY KINETIC LEARNING	NEW TEMPLETON	3	< 0.3
7371056	2022-07-22	9:00 am	2022-07-25	8:00 am	70			AUDITORIUM 1	NEW TEMPLETON	3	< 0.3
7371057	2022-07-22	9:00 am	2022-07-25	8:00 am	70			AUDITORIUM 3	NEW TEMPLETON	3	< 0.3
7371058	2022-07-22	9:00 am	2022-07-25	8:00 am	70			AUDITORIUM 2	NEW TEMPLETON	3	< 0.3
7371059	2022-07-22	9:00 am	2022-07-25	8:00 am	70			KITCHEN	NEW TEMPLETON	3	< 0.3
7371060	2022-07-22	9:00 am	2022-07-25	8:00 am	70			STORAGE 214	NEW TEMPLETON	3	0.7
7371061	2022-07-22	9:00 am	2022-07-25	9:00 am	70			GYM 1	NEW TEMPLETON	3	1.5
7371062	2022-07-22	9:00 am	2022-07-25	9:00 am	70			GYM 2	NEW TEMPLETON	3	1.4
7371063	2022-07-22	9:00 am	2022-07-25	9:00 am	70			STORAGE 312	NEW TEMPLETON	3	1.2
7371064	2022-07-22	9:00 am	2022-07-25	9:00 am	70			STORAGE 309	NEW TEMPLETON	3	1.1
7371065	2022-07-22	9:00 am	2022-07-25	8:00 am	70			STORAGE 208	NEW TEMPLETON	3	< 0.3
7371066	2022-07-22	9:00 am	2022-07-25	8:00 am	70			STAGE	NEW TEMPLETON	3	< 0.3
7371067	2022-07-22	9:00 am	2022-07-25	8:00 am	70			STORAGE 209	NEW TEMPLETON	3	< 0.3
7371068	2022-07-22	9:00 am	2022-07-25	9:00 am	70			STORAGE 315	NEW TEMPLETON	3	0.8
7371069	2022-07-22	9:00 am	2022-07-25	9:00 am	70			GYM 3	NEW TEMPLETON	3	1.3
7371070	2022-07-22	9:00 am	2022-07-25	9:00 am	70			HALLWAY BY GYM	NEW TEMPLETON	3	< 0.3
7371071	2022-07-22	9:00 am	2022-07-25	9:00 am	70			STORAGE 313	NEW TEMPLETON	3	1.2
7371072	2022-07-22	10:00 am	2022-07-25	9:00 am	70			CLASSROOM 130	NEW TEMPLETON	3	0.5

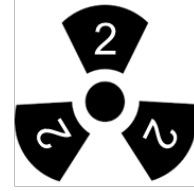
P8834 / TULLA STOCKER

Kit Number	Start Date	Start Time	End Date	End Time	Temp.	Facility	Building	Room	Project ID	Floor	Result
7371073	2022-07-22	10:00 am	2022-07-25	9:00 am	70			CLASSROOM 125	NEW TEMPLETON	3	1.3
7371074	2022-07-22	10:00 am	2022-07-25	9:00 am	70			CLASSROOM 128	NEW TEMPLETON	3	1.0
7371075	2022-07-22	10:00 am	2022-07-25	9:00 am	70			CLASSROOM 130 2	NEW TEMPLETON	3	0.5
7371076	2022-07-22	10:00 am	2022-07-25	9:00 am	70			POD KITCHEN	NEW TEMPLETON	3	0.6
7371077	2022-07-22	10:00 am	2022-07-25	9:00 am	70			CLASSROOM 125 2	NEW TEMPLETON	3	1.4
7371078	2022-07-22	10:00 am	2022-07-25	9:00 am	70			ROOM 407	NEW TEMPLETON	3	0.6
7371079	2022-07-22	10:00 am	2022-07-25	9:00 am	70			STORAGE 406	NEW TEMPLETON	3	0.6
7371080	2022-07-22	10:00 am	2022-07-25	9:00 am	70			ROOM 402 2	NEW TEMPLETON	3	0.7
7371081	2022-07-22	10:00 am	2022-07-25	9:00 am	70			ROOM 408	NEW TEMPLETON	3	0.7
7371082	2022-07-22	10:00 am	2022-07-25	9:00 am	70			ROOM 405	NEW TEMPLETON	3	0.6
7371083	2022-07-22	10:00 am	2022-07-25	9:00 am	70			ROOM 405 2	NEW TEMPLETON	3	0.5
7371084	2022-07-22	10:00 am	2022-07-25	9:00 am	70			ROOM 409	NEW TEMPLETON	3	< 0.3
7371085	2022-07-22	10:00 am	2022-07-25	9:00 am	70			ROOM 402	NEW TEMPLETON	3	0.6
7371086	2022-07-22	10:00 am	2022-07-25	8:00 am	70		60	BLANK 1	NEW TEMPLETON	3	< 0.3
7371087	2022-07-22	10:00 am	2022-07-25	9:00 am	70		60	CARING CLOSET ENTRANCE	NEW TEMPLETON	3	< 0.3
7371088	2022-07-22	10:00 am	2022-07-25	9:00 am	70		60	CARING CLOSET LAUNDRY	NEW TEMPLETON	3	< 0.3
7371091	2022-07-22	10:00 am	2022-07-25	9:00 am	70		60	CARING CLOSET STORAGE 1	NEW TEMPLETON	3	< 0.3
7371092	2022-07-22	10:00 am	2022-07-25	9:00 am	70		60	CARING CLOSET STORAGE 2	NEW TEMPLETON	3	0.8
7371093	2022-07-22	10:00 am	2022-07-25	8:00 am	70		60	BLANK 2	NEW TEMPLETON	3	< 0.3
7371094	2022-07-22	10:00 am	2022-07-25	8:00 am	70		60	BLANK 3	NEW TEMPLETON	3	< 0.3



Radon Chamber

Kansas State University



KSU Radon Chamber

NRPP Certification ID Number SC-1006



Date: 4/27/2022

Tulla Stocker
Apex Environmental
13100 SW Westaffl Rd Sherwood OR 97070
503.789.4185
Tull.stocker@apexenviro.com

These are the results of the spiking that we performed on the device(s) listed below:

Device Serial #	Start Date	Start Time	Stop Date	Stop Time	Chamber Value *
7359191	4/25/2022	1100	4/27/2022	11:40	22.2 pCi/L
7359192	4/25/2022	1100	4/27/2022	11:40	22.2 pCi/L
7359193	4/25/2022	1100	4/27/2022	11:40	22.2 pCi/L

These devices were spiked in our chamber at an average relative humidity of avg/rh 36 %.
These devices were spiked in our chamber at a chamber temperature of 72.5 ° f.
This chamber is at an elevation of approximately 1020 feet.

The additional information below is provided as a service for our customers who have furnished KSU Radon Chamber with the customer's measured values for the above devices. This equation calculates the difference between our chamber value and the customer's measured value and is called the percent error. It is calculated as follows:

$$\% \text{ Error} = \frac{\text{Measured Value} - \text{Chamber Value}}{\text{Chamber Value}} * 100$$

Measured Value: pCi/L **Chamber Value:** pCi/L **Error:**

Thank you for your patronage. If we can be of further help, please email us at radonchamber@ksu.edu or call us at (785-532-4992).

Sincerely,

Bruce Snead