

**Salem Keizer School District
Sprague High School
1st Floor and Basement
RADON TESTING SAMPLE REPORT**

On-site: November 19-21, 2012

Report: December 1, 2012

PURPOSE

Follow up radon testing was done in Rooms 112, 114, 116, 117, 118, 119, 121, 122, 123, 124 on the first floor, after a radon mitigation system was installed for this quadrant of the school and in Rooms 1,2,4,6,8,10,11,12,14,and 15 in the basement after the ventilation systems had been upgraded during the Bond Measure work in the summer, 2012.

CONCLUSION

All of the tested rooms had radon levels below the EPA recommended action level at or above 4 pCi/L. Two test locations were slightly below the action level, Classroom 1 @ 3.0 pCi/L and the classroom 4 @ 3.2 pCi/L.

It is recommended that the operation of the ventilation systems for these two rooms be checked to make sure that the amount of outdoor air supplied has not been lessened. If possible increase the amount of outdoor air to these two rooms, then retest the rooms for radon levels.

TESTING

Radon Air-Chek short-term test devices were used in 20 classrooms by suspending the device in each room. The testing occurred from Monday November 19 to Thursday, November 21 during normal and routine school ventilation system operation.

BACKGROUND ON RADON

Radon is a gas that occurs in nature, seeping up from the earth. It is odorless, colorless and tasteless. Radon comes from the natural breakdown, or radioactive decay, from uranium 238, and produces radon. The half-life of an individual element is relatively short. Within two weeks, about 90% of a given amount of radon gas will be gone. However, the actual health concern is for the radon decay products, called radon

progeny, which carry a small static charge that allows their attachment to water vapor, dust and smoke particles in the air.

The Radon progeny can become lodged in the lung tissue when they are inhaled, and it is these particles' further radiation decay that is associated with potential lung cancer effects.

Radon can seep into buildings or schools through cracks in slab floors or porous cinderblock. It can enter around loose-fitting drainage pipes or through sump pumps. Pressure differential between the building and the soil surrounding the foundation can draw soil gases into the building.

The US EPA has set an action level of 4.0 pCi/L. At or above this level of radon, the EPA recommends that corrective measures should be taken to reduce the exposure to radon gas.

CONTROL OF RADON LEVELS IN SCHOOLS

The major control mechanism for lowering radon levels within school buildings is use of dilution ventilation. If the amount of outside air delivered into a building increases, the radon levels should decrease.

Sample Data Attached

Sprague High School Radon Test Summary

Test Location	Nov 2012 RADON LEVELS pCi/l	May 2012 RADON LEVELS pCi/l	April 18 2012 RADON LEVELS pCi/l	April 3 2012 RADON LEVELS pCi/l	October 2011 RADON LEVELS pCi/l	Dec 2010 RADON LEVELS pCi/l	August 2010 RADON LEVELS pCi/l	June 2010 RADON LEVELS pCi/l
Rm112	0.5	1.9		3.0	1.6	3.6	1.4	3.6
Rm 114	1.0	2.3		3.9	2.2	2.4	1.7	4.4
Rm116	0.8	2.4		4.3	3.1	2.7	1.4	6.5
Rm117	1.1	2.8		4.0	2.5	4.6	1.5	4.7
Rm118	1.1	3.0		4.0	3.2	2.7	1.1	5.1
Rm119	1.3	2.7		4.3	3.0	4.7	0.9	4.4
Rm121	1.5	2.2	2.5	4.4	2.4	3.6	1.2	4.3
Rm 122	1.3	3.0		3.9	3.4	5.9	1.4	5.5
Rm123	1.5	2.2		4.2	3.0	3.4	1.3	4.1
Rm 124	1.2	2.2	2.3	4.8	3.2	4.3	1.4	5.9
EPA Exposure			4.0	4.0	4.0	4.0	4.0	4.0

	Nov 2012 RADON LEVELS pCi/l	May 2012 RADON LEVELS pCi/l	April 18 2012 RADON LEVELS pCi/l	Dec 2010 RADON LEVELS pCi/l	June 2010 RADON LEVELS pCi/l	January 2010 RADON LEVELS pCi/l	June 2009 RADON LEVELS pCi/l	May 2009 RADON LEVELS pCi/l	July 2001 RADON LEVELS pCi/l
Rm 1	3.0		0.9	1.7	<0.3	0.5	0.8	<0.3	12.1
Rm 2	2.2		<0.3	1.2	0.6				
Rm 3				1.1	0.8				
Rm 4	3.2		2.4	2.4	<0.3	<0.3			
Rm 5					0.6		<0.3		
Rm 6	1.5	15.8	3.3	4.4	0.7	<0.3	0.6		
Rm 7					<0.3				
Rm 8	2.8		2.3	2.4	0.6	0.8			
Rm 9				1.1	0.8				
Rm 10	1.9		1.3	2.0	0.8	<0.3			
Rm 11	1.5			1.2	1.0	<0.3	0.6		
Rm 12	1.9		1.8	0.8	0.8	0.7			
Rm 13					1.0				
Rm 14	2.6		<0.3	0.8	<0.3	<0.3	0.6		
Rm 15	<0.3		1.0	1.2	1.1				

November 26, 2012

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
**SPRAGUE
MAIN**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
4588320	1	2012-11-19 @ 8:00 am	2012-11-21 @ 3:00 pm	3.0	2012-11-26
4588326	10	2012-11-19 @ 8:00 am	2012-11-21 @ 3:00 pm	1.9	2012-11-26
4588327	11	2012-11-19 @ 8:00 am	2012-11-21 @ 3:00 pm	1.5	2012-11-26
4588321	112	2012-11-19 @ 8:00 am	2012-11-21 @ 3:00 pm	0.5	2012-11-26
4588311	114	2012-11-19 @ 8:00 am	2012-11-21 @ 3:00 pm	1.0	2012-11-26
4588312	116	2012-11-19 @ 8:00 am	2012-11-21 @ 3:00 pm	0.8	2012-11-26
4588315	117	2012-11-19 @ 8:00 am	2012-11-21 @ 3:00 pm	1.1	2012-11-26
4588313	118	2012-11-19 @ 8:00 am	2012-11-21 @ 3:00 pm	1.1	2012-11-26
4588314	119	2012-11-19 @ 8:00 am	2012-11-21 @ 3:00 pm	1.3	2012-11-26
4588328	12	2012-11-19 @ 8:00 am	2012-11-21 @ 3:00 pm	1.9	2012-11-26
4588317	121	2012-11-19 @ 8:00 am	2012-11-21 @ 3:00 pm	1.5	2012-11-26
4588316	122	2012-11-19 @ 8:00 am	2012-11-21 @ 3:00 pm	1.3	2012-11-26
4588318	123	2012-11-19 @ 8:00 am	2012-11-21 @ 3:00 pm	1.5	2012-11-26
4588319	124	2012-11-19 @ 8:00 am	2012-11-21 @ 3:00 pm	1.2	2012-11-26
4588329	14	2012-11-19 @ 8:00 am	2012-11-21 @ 3:00 pm	2.6	2012-11-26
4588330	15	2012-11-19 @ 8:00 am	2012-11-21 @ 3:00 pm	< 0.3	2012-11-26
4588322	2	2012-11-19 @ 8:00 am	2012-11-21 @ 3:00 pm	2.2	2012-11-26
4588323	4	2012-11-19 @ 8:00 am	2012-11-21 @ 3:00 pm	3.2	2012-11-26
4588324	6	2012-11-19 @ 8:00 am	2012-11-21 @ 3:00 pm	1.5	2012-11-26
4588325	8	2012-11-19 @ 8:00 am	2012-11-21 @ 3:00 pm	2.8	2012-11-26

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