



Cascade Environmental LLC

4346 NE 73rd Avenue
Portland, OR 97218

Phone 503 984 9737

www.cascadenviro.com

August 3, 2019

Mr. Larry Hampton
Newberg School District 29J
703 South Blaine
Newberg, OR 97132

**Re: Radon Testing & Analysis Report
Chehalem Valley Middle School
403 West Foot Hills Drive
Newberg, Oregon 97132
Cascade Environmental Project No. 03122019-01**

Dear Mr. Hampton:

Cascade Environmental is pleased to present this letter report which details the findings of radon sampling conducted at the above referenced facility located in Newberg, Yamhill County, Oregon. The purpose of this study was to determine if levels of radon within the select subgrade and ground floor rooms are above the Environmental Protection Agency's (EPA) recommended action level for radon. The sampling was conducted in compliance with Oregon Revised Statute (ORS) 332.166-167. Sampling was conducted per the protocols provided in "Testing for Elevated Radon Levels in Oregon, A Protocol and Plan" (The protocol) produced by the Oregon Health Authority.

Introduction

Radon is a naturally occurring colorless, odorless gas that is a by-product of the decay of radioactive materials potentially present in bedrock and soil. Radon gas may enter the lowest level of a building through floor cracks, structural joints, or plumbing conduits. The EPA's recommended action level for annual exposure to radon gas is 4.0 picoCuries per liter of air (pCi/L). This recommended action level is not a regulatory requirement, but is the level at which the EPA recommends that building owners take action to reduce the level.

Sampling Methodology

Cascade Environmental conducted a survey for radon gas in all frequently occupied rooms in contact with the soil, whether the contact was slab-on-grade, a basement, a room above a crawl space or any combination of the above. A total of forty-three rooms were tested from March 12, 2019 through March 14, 2019 (Room 101, Sample #56 was resampled from April 1, 2019 through April 3, 2019). Sampling was conducted by Mr. Robert Burns, Industrial Hygienist with Cascade Environmental and Mr. Larry Hampton, District Risk Management Supervisor with Newberg School District. In addition, five duplicate samples, four blank samples and two spike samples were collected for quality control purposes per the protocol. The survey was performed to determine the potential presence of radon gas concentrations, and to develop recommendations for follow-up testing and/or potential mitigation systems as necessary. The canisters were left in place for no less than 48 hours and no longer than 96 hours, in accordance with the sampling protocol provided by the laboratory. The open canisters were placed at breathing air level under normal occupancy conditions. To ensure the canisters would be in place at the end of the sampling period, sample locations were identified in areas where the potential for disturbance was minimal. A total of sixty-three canisters (including duplicates, blanks, spikes and additional samples collected in rooms



larger than 2,000 square feet) were collected, sealed, and forwarded for analysis to AccuStar Labs in Medway, Massachusetts and were analyzed using EPA Method 402-R-92-004. The spike samples were submitted to the Kansas State University Radon Chamber, NRPP Certification ID Number SC-1006, to be “spiked” with a known amount of radon prior to submittal to AccuStar Labs for quality control purposes. The laboratory analytical reports are included in Appendix A.

The following tables summarize the results of the radon gas samples collected from the facility:

Table 1 Chehalem Valley Middle School 403 West Foot Hills Drive Newberg, Oregon 97132 Radon Survey Results 2019			
Sample Number	Location	Floor	Results (pCi/L)
01	Main Office Area	Main	<0.4
02	Staff Room	Main	0.5
03	Principal’s Office	Main	0.5
04	Principal’s Office	Main	<0.4
05	Assistant Principal’s Office	Main	0.4
06	Office	Main	0.5
07	Conference Room	Main	0.4
08	Health Room	Main	0.4
09	Counseling	Main	0.4
10	Office K-Z	Main	0.4
11	Office A-J	Main	0.5
12	No Sample Collected	-	-
13	Commons	Main	0.4
14	Commons	Main	0.4
15	Kitchen Office	Main	<0.4
16	Kitchen Office	Main	<0.4
17	Custodial	Main	0.5
18	Custodial	Main	0.5
19	Office-Girls Locker Room	Main	0.5
20	Gym	Main	0.5
21	Gym	Main	<0.4
22	Gym	Main	0.4



Table 1
 Chehalem Valley Middle School
 403 West Foot Hills Drive
 Newberg, Oregon 97132
 Radon Survey Results 2019

Sample Number	Location	Floor	Results (pCi/L)
23	Gym	Main	<0.4
24	Gym	Main	<0.4
25	Gym	Main	<0.4
26	Gym	Main	<0.4
27	Gym	Main	<0.4
28	Gym	Main	<0.4
29	Office-Boy's Locker Room	Main	0.8
30	Office-Boy's Locker Room	Main	<0.4
31	Band Room	Main	0.4
32	Band Office	Main	0.7
33	Band Office	Main	0.6
34	Room 108	Main	0.6
35	Room 109	Main	0.5
36	Room 110	Main	0.5
37	Room 111	Main	0.5
38	Room 112	Main	0.4
39	Room 113	Main	0.5
40	Room 114	Main	0.4
41	Shop	Main	0.4
42	Room 115 B	Main	0.5
43	Room 115 B	Main	0.5
44	Room 115	Main	0.6
45	Library	Main	<0.4
46	Library	Main	<0.4
47	Work Space-Library	Main	0.4
48	Room 107	Main	<0.4



Table 1
 Chehalem Valley Middle School
 403 West Foot Hills Drive
 Newberg, Oregon 97132
 Radon Survey Results 2019

Sample Number	Location	Floor	Results (pCi/L)
49	Office Between 107 & 106	Main	0.5
50	Room 106	Main	0.4
51	Room 104	Main	0.4
52	Room 103	Main	<0.4
53	Room 102	Main	<0.4
54	Room 100	Main	0.5
55	Room 100	Main	0.4
56	Room 101	Main	0.5
57	Portable 1	Main	0.4
58	Portable 2	Main	<0.4
59	Portable 3	Main	<0.4
60	Portable 4	Main	0.4
61	Stage	Main	0.5
62	Work Room	Main	0.5

Table 2
 Chehalem Valley Middle School
 403 West Foot Hills Drive
 Newberg, Oregon 97132
 Spike Results

Device Number	Spike Value (pCi/L) (Kansas State University)	Results (pCi/L) (AccuStar Labs)
4021132	13.4	11.8
4021133	13.4	12.0

CONCLUSION

The short-term radon sample results for Chehalem Valley Middle School, located at 403 West Foot Hills Drive in Newberg, Yamhill County, Oregon revealed concentrations of radon gas below the EPA's recommended action level of 4.0 pCi/L in all of the rooms tested. In addition, the results from the duplicates, blanks and spikes collected for quality control purposes were all within acceptable parameters per the protocol.



Based on the sample results, Cascade Environmental does not recommend further investigation at this time.

LIMITATIONS

This report provides a summary of the evidence collected and observations made by Cascade Environmental during this assessment. Cascade Environmental performed short-term radon testing to evaluate impacts to selected areas at this single point in time. Actual radon concentrations can vary between sample points, site conditions and usage. This report is based upon the information developed by Cascade Environmental as a result of this one-time sampling and does not guarantee that the site is free of radon or potentially hazardous materials or conditions, or that latent or undiscovered conditions will not become evident in the future.

Thank you for this opportunity to be of service to Newberg School District 29J. If you have any questions, please feel free to contact us at 503-984-9737 or via email at bob@cascadenviro.com.

Sincerely,
Cascade Environmental

A handwritten signature in black ink, appearing to read "Robert Burns".

Robert Burns
Principal

Attachments: Appendix A – Laboratory Results and Chain-of-Custody Documentation
Appendix B – Site Plan

APPENDIX A

LABORATORY RESULTS &
CHAIN OF CUSTODY DOCUMENTATION

NELAC NY 11769
NRPP 103216 AL
NRSB ARL0017

EPA Method #402-R-92-004
Liquid Scintillation
NRPP Device Code 8088
NRSB Device Code 12193

Laboratory Report for:

Property Tested:

Cascade Environmental
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Chehalem Middle School
403 West Foothills Drive
Newberg OR 97132

Log Number	Device Number	Test Exposure	Duration	Area Tested	Result pCi/L
2451405	4020997	03/12/2019 6:31 am	03/14/2019 7:13 am	Main Floor Main Office Area	< 0.4
2451406	4020998	03/12/2019 6:35 am	03/14/2019 7:15 am	Main Floor Staff Room	0.5
2451407	4020972	03/12/2019 6:41 am	03/14/2019 7:16 am	Main Floor Principals Office	0.5
2451408	4020999	03/12/2019 6:41 am	03/14/2019 7:16 am	Main Floor Principals Office Blank	< 0.4
2451409	4020976	03/12/2019 6:43 am	03/14/2019 7:18 am	Main Floor Assistant Principal	0.4
2451410	4020990	03/12/2019 6:43 am	03/14/2019 7:18 am	Main Floor Assistant Principal Duplicate	0.5
2451411	4020987	03/12/2019 6:45 am	03/14/2019 7:19 am	Main Floor Conference Room	0.4
2451412	4020980	03/12/2019 6:46 am	03/14/2019 7:21 am	Main Floor Health Room	0.4
2451413	4020984	03/12/2019 6:46 am	03/14/2019 7:22 am	Main Floor Counseling	0.4
2451414	4020985	03/12/2019 6:49 am	03/14/2019 7:23 am	Main Floor Office K-Z	0.4
2451415	4021138	03/12/2019 6:51 am	03/14/2019 7:24 am	Main Floor Office A-J	0.5

Comment: Confidential: Release results to client only. Cascade Environmental was e-mailed a copy of this report.

Test Performed By: Robert Burns and Larry Hampton

Distributed by: Cascade Environmental

Date Received: 03/15/2019 Date Logged: 03/15/2019 Date Analyzed: 03/16/2019 Date Reported: 03/18/2019

Report Reviewed By: Michel Cleveland

Report Approved By: [Signature]
Shawn Price, Director of Laboratory Operations, AccuStar Labs

Disclaimer:

The uncertainty of this radon measurement is +/- 10 %. Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

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Log Number	Device Number	Test Exposure Duration:	Area Tested	Result pCi/L
2451416	4021137	03/12/2019 6:55 am - 03/14/2019 7:25 am	Main Floor Commons	0.4
2451417	4021116	03/12/2019 6:55 am - 03/14/2019 7:25 am	Main Floor Commons	0.4
2451418	4021139	03/12/2019 6:59 am - 03/14/2019 7:26 am	Main Floor Kitchen Office	< 0.4
2451419	4021121	03/12/2019 6:59 am - 03/14/2019 7:26 am	Main Floor Kitchen Office Blank	< 0.4
2451420	4021111	03/12/2019 7:01 am - 03/14/2019 7:28 am	Main Floor Custodial	0.5
2451421	4021123	03/12/2019 7:01 am - 03/14/2019 7:28 am	Main Floor Custodial Duplicate	0.5
2451422	4021110	03/12/2019 7:05 am - 03/14/2019 7:31 am	Main Floor Office-Girls Locker Room	0.5
2451423	4021113	03/12/2019 7:12 am - 03/14/2019 7:34 am	Main Floor Gym	0.5
2451424	4021128	03/12/2019 7:14 am - 03/14/2019 7:35 am	Main Floor Gym	< 0.4
2451425	4021122	03/12/2019 7:16 am - 03/14/2019 7:36 am	Main Floor Gym	0.4
2451426	4021119	03/12/2019 7:17 am - 03/14/2019 7:37 am	Main Floor Gym	< 0.4

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2451427	4021115	03/12/2019 7:19 am	03/14/2019 7:38 am	Main Floor Gym	< 0.4
2451428	4021129	03/12/2019 7:20 am	03/14/2019 7:41 am	Main Floor Gym	< 0.4
2451429	4021117	03/12/2019 7:21 am	03/14/2019 7:42 am	Main Floor Gym	< 0.4
2451430	4021124	03/12/2019 7:22 am	03/14/2019 7:43 am	Main Floor Gym	< 0.4
2451431	4021118	03/12/2019 7:24 am	03/14/2019 7:45 am	Main Floor Gym	< 0.4
2451432	4021125	03/12/2019 7:08 am	03/14/2019 7:33 am	Main Floor Office-Boys Locker Room	0.8
2451433	4021079	03/12/2019 7:08 am	03/14/2019 7:33 am	Main Floor Office-Boys Locker Room Blank	< 0.4
2451434	4021072	03/12/2019 7:07 am	03/14/2019 7:42 am	Main Floor Band	0.4
2451435	4021085	03/12/2019 7:06 am	03/14/2019 7:41 am	Main Floor Band Office	0.7
2451436	4021076	03/12/2019 7:06 am	03/14/2019 7:41 am	Main Floor Band Office Duplicate	0.6
2451437	4021092	03/12/2019 7:04 am	03/14/2019 7:39 am	Main Floor Room 108	0.6

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Distributed by: Cascade Environmental

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Report Reviewed By: Michael Cleveland

Report Approved By: [Signature]

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Log Number	Device Number	Test Exposure	Duration:	Area Tested	Result pCi/L
2451438	4021089	03/12/2019 7:03 am	03/14/2019 7:38 am	Main Floor Room 109	0.5
2451439	4021102	03/12/2019 7:01 am	03/14/2019 7:37 am	Main Floor Room 110	0.5
2451440	4021097	03/12/2019 7:00 am	03/14/2019 7:36 am	Main Floor Room 111	0.5
2451441	4021100	03/12/2019 6:59 am	03/14/2019 7:35 am	Main Floor Room 112	0.4
2451442	4021078	03/12/2019 6:58 am	03/14/2019 7:34 am	Main Floor Room 113	0.5
2451443	4021080	03/12/2019 6:56 am	03/14/2019 7:33 am	Main Floor Room 114	0.4
2451444	4021070	03/12/2019 6:56 am	03/14/2019 7:33 am	Main Floor Shop	0.4
2451445	4021081	03/12/2019 6:54 am	03/14/2019 7:32 am	Main Floor Teacher Work Area 115B	0.5
2451446	4021091	03/12/2019 6:54 am	03/14/2019 7:32 am	Main Floor Teacher Work Area 115B Duplicate	0.5
2451447	4021075	03/12/2019 6:52 am	03/14/2019 7:31 am	Main Floor Room 115	0.6
2451448	4021084	03/12/2019 6:50 am	03/14/2019 7:30 am	Main Floor Library	< 0.4

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Log Number	Device Number	Test Exposure	Duration:	Area Tested	Result pCi/L
2451449	4021103	03/12/2019 6:49 am	03/14/2019 7:30 am	Main Floor Library	< 0.4
2451450	4021087	03/12/2019 6:49 am	03/14/2019 7:29 am	Main Floor Library Work Space	0.4
2451451	4021071	03/12/2019 6:47 am	03/14/2019 7:28 am	Main Floor Room 107	< 0.4
2451452	4021088	03/12/2019 6:46 am	03/14/2019 7:27 am	Main Floor Office Between 107 and 106	0.5
2451453	4021095	03/12/2019 6:45 am	03/14/2019 7:27 am	Main Floor Room 106	0.4
2451454	4021090	03/12/2019 6:44 am	03/14/2019 7:26 am	Main Floor Room 104	0.4
2451455	4021086	03/12/2019 6:42 am	03/14/2019 7:25 am	Main Floor Room 103	< 0.4
2451456	4021093	03/12/2019 6:41 am	03/14/2019 7:25 am	Main Floor Room 102	< 0.4
2451457	4021077	03/12/2019 6:40 am	03/14/2019 7:24 am	Main Floor Room 100	0.5
2451458	4021105	03/12/2019 6:40 am	03/14/2019 7:24 am	Main Floor Room 100 Duplicate	0.4
2451459	4021074	03/12/2019 6:37 am	03/14/2019 7:20 am	Main Floor Portable 1	0.4

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Report Approved By: [Signature]
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Log Number	Device Number	Test Exposure	Duration:	Area Tested	Result pCi/L
2451460	4021098	03/12/2019 6:35 am	03/14/2019 7:19 am	Main Floor Portable 2	< 0.4
2451461	4021083	03/12/2019 6:34 am	03/14/2019 7:18 am	Main Floor Portable 3	< 0.4
2451462	4021082	03/12/2019 6:33 am	03/14/2019 7:17 am	Main Floor Portable 4	0.4
2451463	4021099	03/12/2019 7:14 am	03/14/2019 7:44 am	Main Floor Stage	0.5
2451464	4021120	03/12/2019 6:38 am	03/14/2019 7:16 am	Main Floor Work Room	0.5

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Report Reviewed By: Michelle Cleveland

Report Approved By: Shawn Price

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Log Number	Device Number	Test Exposure Duration:	Area Tested	Result pCi/L
2465140	4021096	04/01/2019 6:55 am 04/03/2019 7:20 am	Room 101	0.5

Comment: Confidential: Release results to client only. Cascade Environmental was e-mailed a copy of this report.

Test Performed By: Larry Hampton

Distributed by: Cascade Environmental

Date Received: 04/08/2019 Date Logged: 04/08/2019 Date Analyzed: 04/09/2019 Date Reported: 04/09/2019

Report Reviewed By: Michelle Cleveland

Report Approved By: [Signature]

Shawn Price, Director of Laboratory Operations, AccuStar Labs

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Log Number	Device Number	Test Exposure Duration:	Area Tested	Result pCi/L
2496803	4021134	05/15/2019 11:15 am 05/17/2019 11:15 am	First Floor Room 3C	11.8
2496804	4021135	05/15/2019 11:17 am 05/17/2019 11:17 am	First Floor Room 4C	12.0


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Test Performed By: Robert Burns

Distributed by: Cascade Environmental

Date Received: 05/22/2019 Date Logged: 05/22/2019 Date Analyzed: 05/23/2019 Date Reported: 05/23/2019

Report Reviewed By: 

Report Approved By: 

Disclaimer:

Shawn Price, Director of Laboratory Operations, AccuStar Labs

The uncertainty of this radon measurement is $\pm 10\%$. Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

This report may only be transferred to a third party in its entirety. Analytical results relate to the samples AS RECEIVED BY THE LABORATORY. Results shown on this report represent levels of radon gas measured between the dates shown in the room or area of the site identified above as "Property Tested". Incorrect information will affect results. The results may not be construed as either predictive or supportive of measurements conducted in any area of this structure at any other time. AccuStar Labs, its employees and agents are not responsible for the consequences of any action taken or not taken based upon the results reported or any verbal or written interpretation of the results.



Radon Chamber

Kansas State University



KSU Radon Chamber

NRPP Certification ID Number SC-1006

Date: 5/17/2019

Robert Burns
 Cascade Environmental
 4346 NE 73rd Ave Portland OR 97218
bob@cascadenviro.com
 503.984.9737

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 *
4021132	5/15/2019	11:15am	5/17/2019	11:15am	13.4
4021133	5/15/2019	11:15am	5/17/2019	11:15am	13.4
4021134	5/15/2019	11:15am	5/17/2019	11:15am	13.4
4021135	5/15/2019	11:15am	5/17/2019	11:15am	13.4
4021136	5/15/2019	11:15am	5/17/2019	11:15am	13.4

These devices were spiked in our chamber at an average relative humidity of avg/rh 37.7 %.
These devices were spiked in our chamber at a chamber temperature of 70.9 ° 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

Start test before expiration date on device or result will be invalid.

Radon In Air Test Data Sheet

Send Written Report To:

Cascade Environmental
 4346 W. Forest Ave
 Foothill BR 97218

Contact: Robert Burns Tel: 503-984-9737
 E-Mail Address: Rob@cascalenviro.com

Start Date: 3.12.19 Stop Date: 3.14.19

Person Conducting Test: _____

Start and Stop Times and Dates must be entered

Project Number: _____
 Site Name: Cheltenham Middle School
 Address: 405 W. Foothills Drive
 City State Zip: Newberg OR 97132

Lab Use Only	Device Number	Building #	Unit #	Floor	Name of Room	Start Time	Stop Time	Lab Use
					See Attached			

Chehalam
 403 W. Foothills Drive
 Newberg, Oregon 97132
 Radon Testing 2019

Start Date: 3.12.19

Stop Date: 3.14.19

Tester Name(s): Robert Burns & Gary Stumpfen

Lab Use Only	Sample #	Device #	Floor	Room	Start Time	Stop Time	Comments	Lab Use
	1	4020 997 998	Main	Main Office Area	0631	0713	by Printer	
	2	4020 997 998	Main	Staff Room	0635	0715	Smks	
	3	4020 972	Main	Principals Office	0641	0716	Pop Desk	
	4	4020 999	Main	Principals Office	-	-	Blank	
	5	4020 976	Main	Office Assistant Principals	0643	0718	Book Shelf	
	6	4020 990	Main	Office?	0643	0718	Duplicate	
	7	4020 987	Main	Conference Room	0645	0719		
	8	4020 980	Main	Health Room	0646	0721	Top of Cab	
	9	4020 981	Main	Counseling	0646	0722	Filing	
	10	4020 985	Main	Office K-Z	0649	0725	Desk	
	11	4021 138	Main	Office A-S	0651	0724	Filing	
	12	4021	Main	Office? No office			No Sample	

Chehalam
 403 W. Foothills Drive
 Newberg, Oregon 97132
 Radon Testing 2019

Lab Use Only	Sample #	Device #	Floor	Room	Start Time	Stop Time	Comments	Lab Use
	13	4021 137	Main	Commons	0655	0725	no test strip Between 2,000 and 4,000 SF	
	14	4021 116	Main	Commons	0657	0725	venting	
	15	4021 139	Main	Kitchen Office	0659	0726	shelld	
	16	4021 121	Main	Kitchen Office	-	-	Blank	
	17	4021 111	Main	Custodial	0701	0728	Filler	
	18	4021 123	Main	Custodial	0701	0728	Duplicate	
	19	4021 110	Main	Office-Girls Locker Room	0705	0731	no inclom	
	20	4021 113	Main	Gym	0712	0734	4x NUU corner	
	21	4021 128	Main	Gym	0714	0735	W NW	
	22	4021 122	Main	Gym	0716	0736	W SW	
	23	4021 119	Main	Gym	0717	0737	SW	
	24	4021 115	Main	Gym	0719	0738	SE	
	25	4021 129	Main	Gym	0720	0741	east middle	
	26	4021 117	Main	Gym	0721	0742	north east	
	27	4021 124	Main	Gym	0722	0743	north middle	

Chehalam
403 W. Foothills Drive
Newberg, Oregon 97132
Radon Testing 2019

Lab Use Only	Sample #	Device #	Floor	Room	Start Time	Stop Time	Comments	Lab Use
	28	4021 118	Main	Gym	07:24	07:45	North West	
	29	4021 125	Main	Office-Boy's Locker Room	07:08	07:33	Window	
	30	4021 079	Main	Office-Boy's Locker Room	07:08	07:33	Blank	
	31	4021 672	Main	Band Room	07:07	07:42	White board	
	32	4021 685	Main	Band Office	07:06	07:41	File cabinet	
	33	4021 076	Main	Band Office	07:06	07:41	Duplicate	
	34	4021 092	Main	Room 108	07:04	07:39	teacher bookshelf	
	35	4021 689	Main	Room 109	07:03	07:38	gray shelf	
	36	4021 102	Main	Room 110	07:01	07:37	File cabinet	
	37	4021 097	Main	Room 111	07:00	07:36	teacher lost area	
	38	4021 100	Main	Room 112	06:59	07:35	phone	
	39	4021 078	Main	Room 113	06:58	07:34	teacher bookshelf	
	40	4021 080	Main	Room 114	06:56	07:33	hall cabinet	
	41	4021 070	Main	Shop	06:56	07:33	first aid	
	42	4021 081	Main	115 B Teacher Work Area	06:54	07:32	hall cabinet	

Chehalam
403 W. Foothills Drive
Newberg, Oregon 97132
Radon Testing 2019

Lab Use Only	Sample #	Device #	Floor	Room	Start Time	Stop Time	Comments	Lab Use
	43	4021 091	Main	115B Teacher Work Area	06:54	07:32	Duplicate	
	44	4021 075	Main	Room 115	06:52	07:31	sink cabinet	
	45	4021 084	Main	Library	06:50	07:30	fridge on bookshelf Between 2,000 and 4,000 SF	
	46	4021 103	Main	Library	06:49	07:30	trophies	
	47	4021 087	Main	Work Space-Library?	06:49	07:29	phone	
	48	4021 071	Main	Room 107	06:47	07:28	full bookshelf	
	49	4021 088	Main	Office Between 107 & 106?	06:46	07:27	top of bookshelf	
	50	4021 095	Main	Room 106	06:45	07:27	paper cutter	
	51	4021 090	Main	Room 104	06:44	07:26	gray bookshelf	
	52	4021 086	Main	Room 103	06:42	07:25	pencher bookshelf	
	53	4021 093	Main	Room 102	06:41	07:25	back left shelf	
	54	4021 077	Main	Office Across from 102? 100	06:40	07:24	brown cabinet	
	55	4021 105	Main	Office Across from 102? 100	06:40	07:24	Duplicate	
	56	4021 073	Main	402101 Room 101	5/14/19 7:52 6:38		missing probe NO Sample	
	57	4021 074	Main	Portable 1	06:37	07:20	welcome sign	

Chehalam
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Lab Use Only	Sample #	Device #	Floor	Room	Start Time	Stop Time	Comments	Lab Use
	58	4021 098	Main	Portable 2	06:35	07:19	teacher desk	
	59	4021 083	Main	Portable 3	06:34	07:18	computers	
	60	4021 082	Main	Portable 4	06:33	07:17	whiteboard	
	C1	4021 099	Main	Stage	07:14	07:44	hall cabinet	
	62	4021 120	Main	Work Room	06:58	07:16		
		4021						
		4021						
		4021						
		4021						
		4021						
		4021						

Robert Burns
Cascade Environmental
503-984-9737
bob@cascadenviro.com

Address
4346 NE 73rd Avenue
Portland, OR. 97218

I have read and understand the Disclaimer for KSU Radon Chamber Services.
Yes

NRPP/State Certification Number
NA

Type of Service
Spike

Number of Devices to Spike
5

Device 1 Details (Make and Model and Serial Number)
liquid scintillation Canister #4021132

Device 2 Details (Make and Model and Serial Number)
liquid scintillation Canister #4021133

Device 3 Details (Make and Model and Serial Number)
liquid scintillation Canister #4021134

Device 4 Details (Make and Model and Serial Number)
liquid scintillation Canister #4021135

Device 5 Details (Make and Model and Serial Number)
liquid scintillation Canister #4021136

Length of Exposure
48 Hours

Date On or Before Which Your Device Will Arrive at KSU Radon Chamber

- Tue, 05/14/2019

Disclaimer for Spiking or Performance Testing Using KSU Radon Chamber

To all potential customers considering having a spiking or performance test done by the AARST-NRPP approved chamber operated by KSU Radon Chamber:

KSU Radon Chamber pledges to perform all performance tests as accurately as current science allows and to do so regardless of which device the client provides. We will follow your instructions regarding the methodology used to expose your device. We will monitor the radon, temperature, humidity and barometric pressure during the exposure period and report these numbers to you. If, for some reason, we do not maintain the chamber to within specs during the exposure, or if we do not expose your device per your instructions, we will redo the spike or performance test at no cost to you, including paying for any shipping. **Our liability is limited to the above costs.**

Specifications that are currently in place for our chamber are:

- 1) The radon will be kept at a constant value (within 10% COV) during the exposure.
- 2) The temperature will be kept at a constant value (72 degrees +/- 2 degrees) during the exposure.
- 3) The humidity will be kept between 20% and 50% during the exposure and the average humidity reported to you.
- 4) The radon concentration will be verified at the beginning of exposure and at the end of exposure (and every 72 hours during exposure) by a pair of grab samples read with an EPA inter-compared measuring system.

KSU Radon Chamber is not responsible for any other costs incurred by you or any consequential, indirect or special damages. You, the client, must insure your device prior to shipping or mailing if you are concerned about shipping damage.

Further, KSU Radon Chamber cannot guarantee that you will pass every performance test and spike test. KSU Radon Chamber is not liable in any way for losses you may suffer as a result of failing a performance test or a spiking test, except that we will redo a spike or performance test if the failure is ours (as discussed in the first paragraph above) at no cost to you.

Robert Burns



5/13/19

(Client's Printed Name)

(Client's Signature)

(Date)

AARST-NRPP Due Date

1st Time Tester

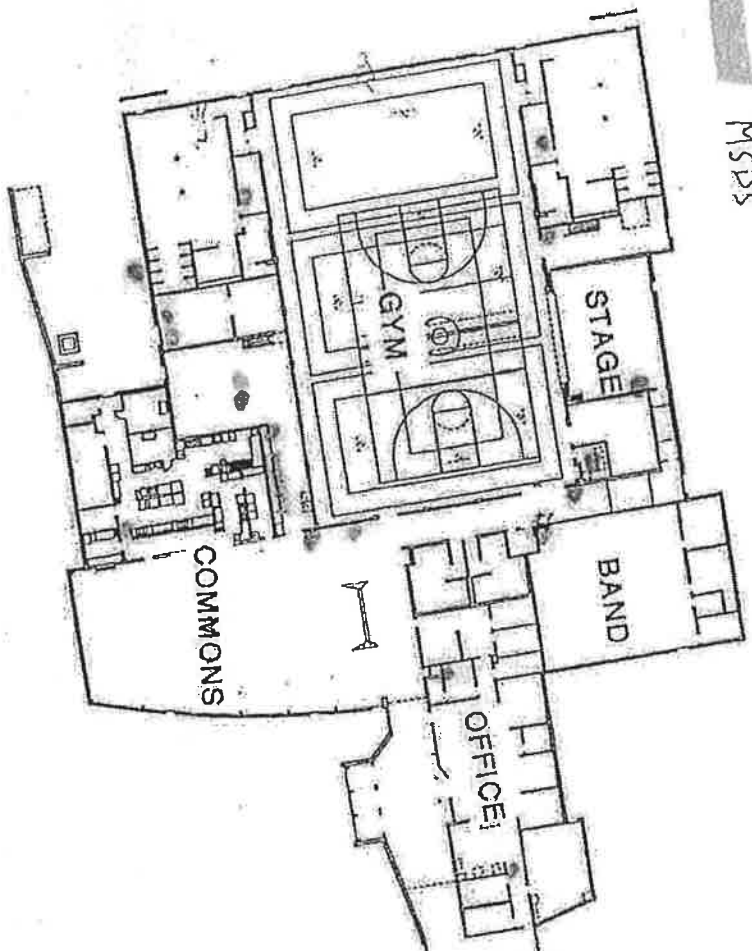
This disclaimer must have a printed name, a signature and a date, and be returned to KSU Radon Chamber before spiking or performance testing will begin.

APPENDIX B

SITE PLAN



- ABC Fire ext
- First Aid Kits
- AED
- Gas Shut off
- MSDS
- Electrical shut off
- Water shut off



CHEHALEM VALLEY
MIDDLE SCHOOL

