Certified Inspections LLC
Professional Home Inspections
Commercial Building Inspections
Structural Inspections
Radon Measurement & Mitigation Specialists
Florida Certified

Radon Solutions
FL DOH Certified Radon Measurement and Mitigation Professionals
Tallahassee FL (850) 562-4010 CertifiedTLH.com

Michael Flemming, President
FL Certified Home Inspector FL Lic#HI4590
FL Certified Building Contractor FL Lic#CBC1256612
InterNACHI Certified Building Inspector
FL DOH Certified Radon Measurement & Mitigation Specialist #R2264, R2312, RB2321

Office (850) 562-4010
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PO Box 14012
Tallahassee FL 32317
CertifiedTLH@gmail.com

Residential Radon Measurement Report

February 25, 2014

Client:
[redacted]

TESTED PROPERTY ADDRESS: [redacted], **Tallahassee FL 32308**
TESTING DURATION: 74 hours
TESTING LOCATION: Living Room.[6]
TESTING METHOD: Real Estate Short Term, Single Test Option, 48-hour minimum.[1]
TESTING DEVICE: Radalink AirCat pulsed ionization chamber active continuous radon monitor.[1]
Proper authorization and notifications provided: Yes
Standardized Measurement Conditions have been verified[8]: Yes
Violation of testing protocols observed: No

The short term radon measurement at the above tested property address is: **31.3 pCi/L**[10]

Recommendation:
X Radon mitigation is not indicated.[2,4] *Radon level is 1.9 or below*
X Radon mitigation is suggested.[2] *Radon level is between 2.0 and 3.9*
X Radon mitigation is recommended.[2] ***Radon level is 4.0 or above***
X Radon measurement results are judged inconclusive.[7] *Re-testing is recommended.*

Notes: There is no safe level for indoor radon.[4] Radon in air is ubiquitous. Radon is found in outdoor air, (0.4 average) and in the indoor air of homes and buildings of all kinds. You and your family are most likely to get your greatest exposure to radon at home.[4] EPA recommends homes be mitigated if the radon level is 4 pCi/L or more. Because there is no known safe level of exposure to radon, EPA also recommends that Americans consider fixing their home for radon levels between 2 pCi/L and 4 pCi/L.[5] Radon retesting is recommended every 2 years, or if the building is substantially modified, or if usage of the building is changed, i.e., basement areas are remodeled for bedrooms, etc.[3] Radon measurements are made in the home's lowest level which contains a room that is used regularly.[9]

Please call if you have any questions,

Michael Flemming

FL DOH Radon Measurement Specialist #R2264, RB2378

1 *"EPA Protocols For Radon And Radon Decay Product Measurements In Homes"*, section 3.2.3. EPA, 402.R.92-003
2 *"EPA Protocols For Radon And Radon Decay Product Measurements In Homes"*, section 2.3.3. EPA, 402.R.92-003
3 *"A Consumer's Guide to Radon Reduction"* EPA, 402-K-03-002
4 *"A Citizen's Guide To Radon"* EPA, EPA-402/C-12/001
5 *"Why is Radon the Public Health Risk That It Is?"* EPA, http://www.epa.gov/radon/aboutus.html
6 *"EPA Protocols For Radon And Radon Decay Product Measurements In Homes"*, section 3.3. EPA, 402.R.92-003
7 *"EPA Protocols For Radon And Radon Decay Product Measurements In Homes"*, section 3.5. EPA, 402.R.92-003
8 *"Indoor Radon And Radon Decay Product Measurement Device Protocols", section 1.2.2,3.* EPA, 402.R.92-004
9 *"EPA Protocols For Radon And Radon Decay Product Measurements In Homes"*, section 2.2. EPA, 402.R.92-003
10 Radon measurements are reported in picocuries per liter of air.

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CERTIFIED RADON REPORT

February 24, 2014 Test Number: 1353-93

Property Inspected: [redacted], Tallahassee, FL 32308

Licensed Radalink Radon Inspector:
Certified Home Inspections
Michael Flemming
4947 E Shannon Lakes Drive
Tallahassee, FL 32309
Phone: 850-562-4010
Fax: 850-894-6887

Test performed for:
[redacted]

						Temp.	Pressure	R.H.
			Placed By:	Michael Flemming (FL R2264)				
Calibrated:	08/26/2013		Retrieved By:	Michael Flemming (FL R2264)	Min:	68.0	30.8	40
Test Started:	02/21/2014	1:48 PM	Test Site:	Living Room	Avg:	70.9	30.8	55
Test Ended:	02/24/2014	4:10 PM	Test Duration:	74 hours	Max:	77.0	30.9	59

AVERAGE RADON CONCENTRATION: 31.3 pCi/l

Test has met minimum EPA sampling duration.

	02/21/2014		02/22/2014		02/23/2014		02/24/2014	
Time	pCi/l	Flags	pCi/l	Flags	pCi/l	Flags	pCi/l	Flags
00:48 am			18.4		45.6		48.8	
01:48			19.5		40.3		50.1	
02:48			17.4		35.8		53.4	
03:48			14.7		38.8		53.2	
04:48			16.1		32.8		52.4	
05:48			19.8		32.0		48.9	
06:48			14.4		29.8		46.3	
07:48			16.8		29.7		48.8	
08:48			16.8		27.8		46.1	
09:48			15.0		26.9		37.9	
10:48			16.2		29.7		42.6	
11:48			14.3		28.9		41.5	
12:48 pm			12.5		27.7		34.7	
01:48			16.0		35.7		36.6	
02:48	Eq.		15.2		32.0		33.9	
03:48	Eq.		14.3		31.5		30.4	
04:48	Eq.		24.0		30.2			
05:48	Eq.		30.0		27.9			
06:48	21.9		39.0		29.2			
07:48	24.0		45.4		28.5			
08:48	23.4		46.4		26.5			
09:48	21.7		50.5		28.7			
10:48	20.9		43.8		33.8			
11:48	23.0		48.0		37.3			

Flags: P= AC Power Disruption; T=Tilt
Eq. = Equilization Period

While every effort was made to maintain optimum quality control and EPA Protocol during the testing period, neither Radalink, Inc. or its licensed agents provide any warranty, expressed or implied, for the consequences of erroneous test results. There can be some uncertainty with any measurement due to statistical variations, extreme weather changes, operation of the building, and other factors, Radalink, Inc. and its licensed operators shall not be liable under any charge or claim for losses, claims, charges, fees, demands, expenses, or damages resulting from a radon test. This report is subject to the terms on the last page of the document.

ENVIRONMENTAL DATA

MONITOR-TEST NUMBER: 1353-93

Property Inspected: [redacted]
Tallahassee, FL 32308

	02/21/2014			02/22/2014			02/23/2014			02/24/2014		
Time	Temp	InHg	RH	Temp	InHg	RH	Temp	InHg	RH	Temp	InHg	RH
00:48 am				71.0	30.9	59	71.0	30.8	47	71.0	30.8	59
01:48				69.0	30.9	59	69.0	30.8	46	71.0	30.8	59
02:48				69.0	30.9	59	69.0	30.8	49	71.0	30.8	59
03:48				69.0	30.9	59	69.0	30.8	53	71.0	30.8	59
04:48				69.0	30.9	59	69.0	30.8	53	71.0	30.8	59
05:48				69.0	30.9	59	69.0	30.8	53	71.0	30.8	59
06:48				68.0	30.9	59	69.0	30.8	53	71.0	30.8	59
07:48				68.0	30.9	59	69.0	30.8	53	71.0	30.8	59
08:48				68.0	30.9	59	69.0	30.9	56	71.0	30.8	59
09:48				68.0	30.9	59	69.0	30.9	56	71.0	30.9	59
10:48				69.0	30.9	56	69.0	30.9	56	71.0	30.9	59
11:48				69.0	30.9	56	69.0	30.8	56	71.0	30.9	59
12:48 pm				71.0	30.9	56	69.0	30.9	56	71.0	30.8	59
01:48				73.0	30.9	53	69.0	30.8	56	73.0	30.8	59
02:48	73.0	30.8	56	75.0	30.8	53	69.0	30.8	56	75.0	30.8	56
03:48	75.0	30.8	53	77.0	30.8	50	69.0	30.8	56	75.0	30.8	56
04:48	73.0	30.8	53	77.0	30.8	43	69.0	30.8	56			
05:48	73.0	30.8	56	77.0	30.8	40	69.0	30.8	56			
06:48	73.0	30.8	56	75.0	30.8	40	69.0	30.8	56			
07:48	73.0	30.8	59	73.0	30.9	40	69.0	30.8	56			
08:48	73.0	30.8	59	73.0	30.9	44	69.0	30.8	59			
09:48	73.0	30.8	59	73.0	30.9	43	71.0	30.8	59			
10:48	71.0	30.8	59	71.0	30.9	43	71.0	30.8	59			
11:48	71.0	30.9	59	71.0	30.9	47	71.0	30.8	59			

AVERAGE RADON CONCENTRATION: 31.3 pCi/l

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Reviewed and certified by

Terry Howell, Quality Assurance Mgr.
Radalink, Inc. NEHA 135791T

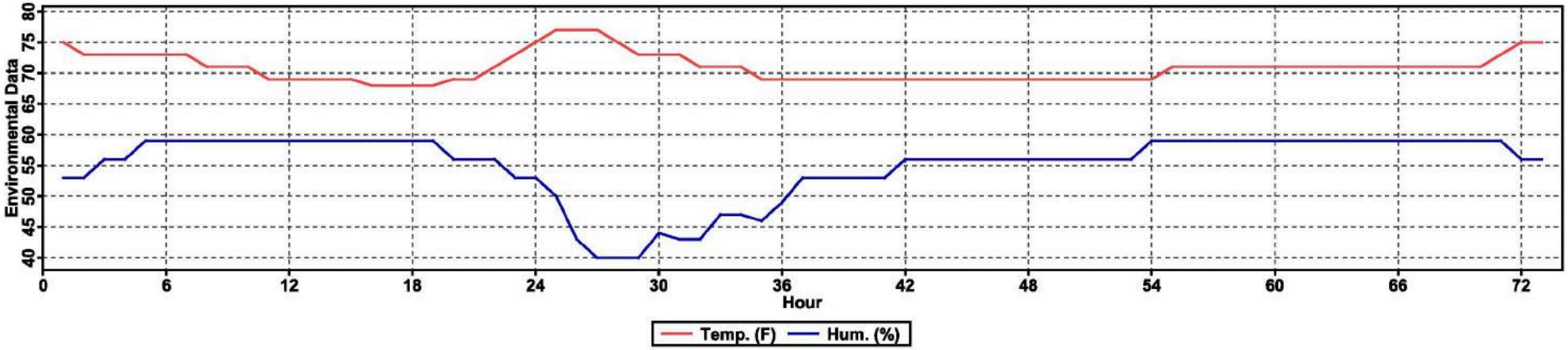
	Minimum	Average	Maximum	Variance
Temperature:	68.0	70.9	77.0	5.14
Barometric Pressure:	30.8	30.8	30.9	0.0
Relative Humidity:	40	55	59	28.5

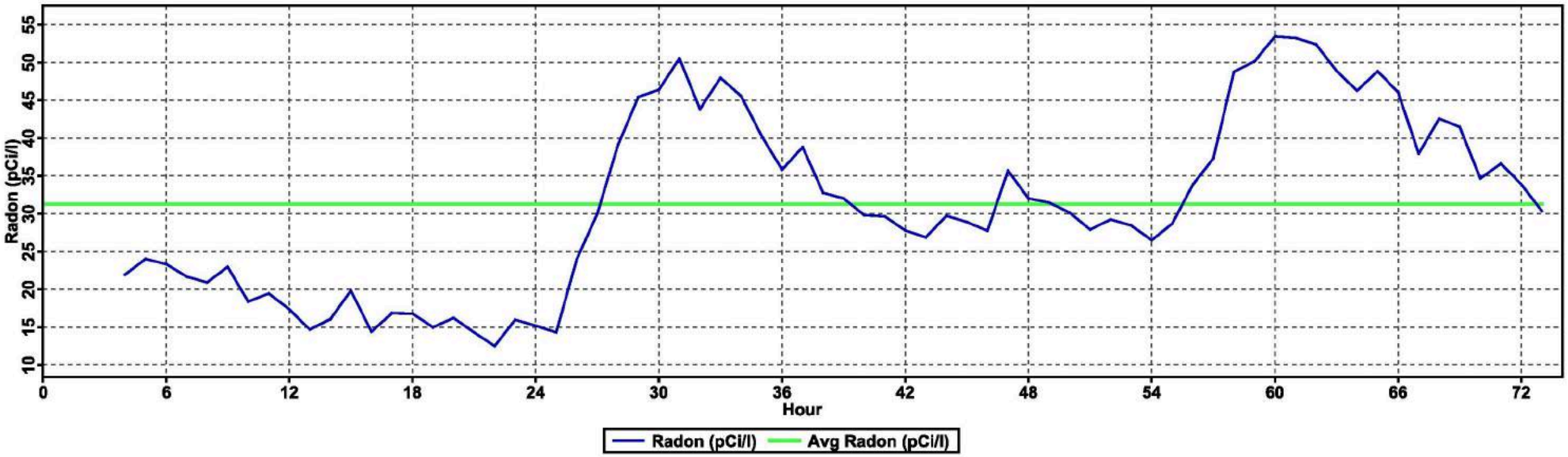
NOTE: The first hour's environmental data is excluded from the table above.

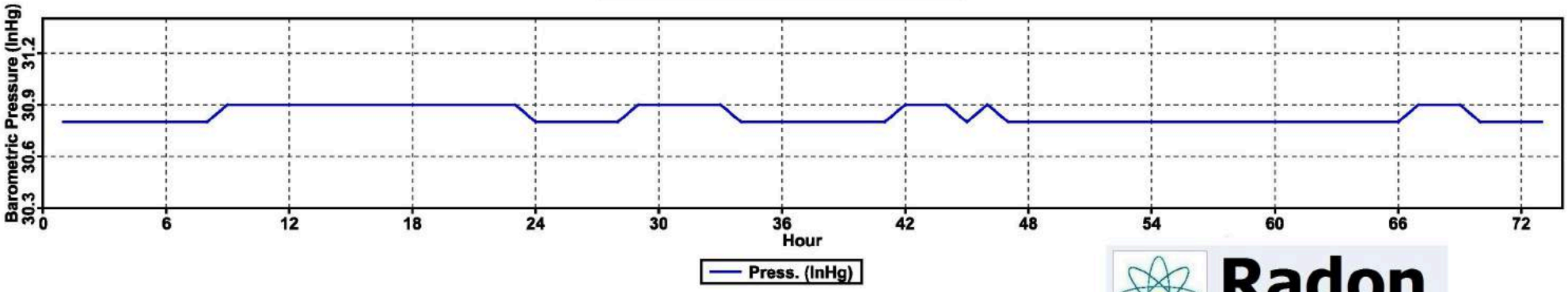
Radalink, Inc. 5599 Peachtree Road Atlanta, GA 30341

GRAPHICAL DATA VIEW

MONITOR-TEST NUMBER: 1353-93







Property Inspected: [redacted], Tallahassee, FL 32308

AVERAGE RADON CONCENTRATION: 31.3 pCi/l

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IMPORTANT NOTICE

If you have questions concerning your radon measurement results, or about radon mitigation, please contact Michael Flemming, a Florida Dept. of Health Certified Radon Measurement Specialist and DOH Certified Radon Mitigation Specialist. (850) 562-4010. More radon information is also available at www.CertifiedTLH.com

If the average radon concentration in the home is measured at or above 4.0 pCi/L, the EPA's Action Level, radon mitigation is recommended by the Florida Department of Health.[5,10]
The World Health Organization (WHO) Action Level is 2.7 pCi/L.[1]

If your radon measurement is between 2.0 and 4.0 pCi/L, radon mitigation is suggested. There is no safe level of radon in the home.[5] Radon causes lung cancer. Radon kills approx. 21,000 Americans annually, and is the #1 cause of lung cancer for non-smokers in the US.[11] Radon is by far the greatest single source of radiation exposure to the general public.[6]

The FL Dept. of Health requires a FL Licensed Radon Mitigation Business employing a DOH Certified Radon Mitigation Specialist perform any radon mitigation system installations, or system modifications.[2]

Severe Weather: Severe weather can affect, and sometimes invalidate radon test results. Since severe weather is often localized, please report any "unusually severe storms or periods of unusually high winds or heavy rains" observed during the test period to the radon specialist.[12]

Additional Information: There is no safe level for indoor radon.[4] Radon is radiation, and causes lung cancer.[13] Radon in air is ubiquitous. Radon is found in outdoor air (0.4 pCi/L average), and in the indoor air of homes and buildings of all kinds. **You and your family are most likely to get your greatest exposure to radiation (radon) at home.[4]** EPA recommends homes be mitigated if the radon level is 4 pCi/L or more. Because there is no known safe level of exposure to radon, EPA also recommends that Americans consider fixing their home for radon levels between 2 pCi/L and 4 pCi/L.[5] Radon retesting is recommended every 2 years, or if the building is substantially modified, or if usage of the building is changed, i.e., basement areas are remodeled for bedrooms, etc.[3] Radon measurements are made in the home's lowest level which contains a room that is used regularly.[9]

1 *"WHO Handbook On Indoor Radon" http://whqlibdoc.who.int/publications/2009/9789241547673_eng.pdf*
2 *Florida Administrative Code Part XXII A, 64E-5.1202*
3 *"A Consumer's Guide to Radon Reduction"* EPA, 402-K-03-002
4 *"A Citizen's Guide To Radon"* EPA, EPA-402/C-12/001
5 *"Why is Radon the Public Health Risk That It Is?"* EPA, http://www.epa.gov/radon/aboutus.html
6 EPA, *http://www.epa.gov/radiation/sources/index.html#norm*
7 *"EPA Protocols For Radon And Radon Decay Product Measurements In Homes"*, section 3.5. EPA, 402.R.92-003
8 *"Indoor Radon And Radon Decay Product Measurement Device Protocols", section 1.2.2,3.* EPA, 402.R.92-004
9 *"EPA Protocols For Radon And Radon Decay Product Measurements In Homes"*, section 2.2. EPA, 402.R.92-003
10 *Radon measurements are reported in picocuries per liter of* air.
11 *EPA, http://www.epa.gov/radon/healthrisks.html*
12 *"EPA Protocols For Radon And Radon Decay Product Measurements In Homes", section 2.3.2. EPA, 402.R.92-003*
13 *EPA, http://www.epa.gov/radiation/radionuclides/radon.html*

HOW TO INTERPRET YOUR TEST RESULTS

REPORT RELATES ONLY TO THE ITEMS TESTED FOR AND DURING THE MEASUREMENT PERIOD SHOWN.

If you have any questions concerning your radon measurement results, or radon mitigation options, please contact Michael Flemming, a Florida Dept. of Health Certified Radon Measurement Specialist and FL DOH Certified Radon Mitigation Specialist. (850) 562-4010
More radon information is also available on our website: www.CertifiedTLH.com

Test results may also be interpreted in accordance with the EPA's guidance as published in EPA Publication No. 402-K-008 *"Homebuyer's and Sellers Guide to Radon"* and EPA Publication No. 402-K92-001 *"Citizen's Guide to Radon"*. You may also contact the Florida Dept. of Health, Public Health Toxicology, Radon Program at 800-543-8279 or
http://www.doh.state.fl.us/environment/community/radon/index.html

Because radon is the second leading cause of lung cancer, the Surgeon General and the US EPA recommend testing all homes for radon and mitigating those homes with an average radon concentration of 4.0 picoCuries per Liter (4.0 pCi/L) or higher. Even is your test result is below 4.0 pCi/L, mitigation may be recommended, as there is no safe indoor level for radon in homes.

The Radalink Radon TeleMonitor (NEHA Device #00472) used to perform this test is EPA and NEHA approved, and meets the Single Test Option requirements (EPA 402-R-93-003, Section 3.2.3) for conducting radon measurements in real estate transactions, and may be used for determining the necessity of radon mitigation.

Radon reduction systems work! Professionally installed radon mitigation systems can reduce radon levels in your home by up to 90%. Tens of thousands of people have successfully reduced levels in their homes. Maintaining a radon reduction system takes little effort to keep the system working properly and radon levels low. Florida requires you have a licensed radon mitigation specialist fix your home if radon levels are confirmed to be 4.0 pCi/L or higher. For more information on how to reduce your radon health risk, contact your state radon office: FLORIDA 800-543-8279, GEORGIA 800-745-0037.

SURGEON GENERAL HEALTH ADVISORY: "Indoor radon is the second-leading cause of lung cancer, and the #1 cause of lung cancer for non-smokers in the US. Breathing radon gas over long periods can present a significant health risk to families. More than 21,000 die of radon-related lung cancer every year. It's important to know this threat is completely preventable. Radon can be detected with testing and can be fixed through well-established mitigation techniques."

"Consider fixing [mitigating] when the radon level is between 2 and 4" -EPA Home Buyer's and Seller's Guide to Radon.
"EPA recommends homeowners consider reducing the indoor radon level if the measurement is between 2 and 4 pCi/L." -Protocols for Radon And Radon Decay Product Measurements In Homes EPA402-R-92-003, Section 2.3.3.

The United Nation's World Health Organization (WHO) says that radon is a worldwide health risk in homes. Dr. Maria Neira of WHO said that "Most radon-induced lung cancers occur from low and medium dose exposures in people's homes. Radon is the second most important cause of lung cancer after smoking in many countries."

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