

# **RADON INSPECTION REPORT**



*House Detectives, Inc.  
PO Box 357  
Kalispell, MT 59903  
Office 406-756-3636  
info@housedetectivesinc.com*

Client(s): \_\_\_\_\_ Client \_\_\_\_\_  
Property Address: \_\_\_\_\_ 164 Sample Lane Kalispell, MT 59901 \_\_\_\_\_  
Certified Radon Measurement Specialist: \_\_\_\_\_ Jay W. Gorder \_\_\_\_\_  
Attendance: [ ] Buyer [ ] Buyers Agent [ ] Seller [ ] Listing Agent [ ] Tenant [ ] Inspector  
Other: \_\_\_\_\_ Owner \_\_\_\_\_

INSPECTION TYPE: [X] Screening [ ] Follow-up/Confirmation [ ] Post-Mitigation Analysis  
[ ] Simultaneous Multiple Monitors [ ] Single Monitor

INSPECTION FEE: \$ \_\_\_\_\_ 99.00 \_\_\_\_\_

## **REPORT CONTENTS**

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## **REPORT CONFIDENTIALITY**

This report is solely for the benefit of the Client. Any person or party designated by the Client to receive information in this report shall be subject to the **TERMS AND CONDITIONS** contained herein. Such designation shall be provided in writing to House Detectives, Inc.

## LIMITATIONS OF LIABILITY REGARDING RADON TESTING

House Detectives, Inc. cannot guarantee the necessary conditions were maintained during the test period. There can be uncertainty with any radon measurement due to statistical variations and other factors such as changes in the weather and operation of the dwelling. While House Detectives, Inc. and our agents make every effort to maintain the highest possible quality control and include verification in our procedures, we make **NO WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED**, for the consequences of erroneous test results. House Detectives, Inc. nor its employees or agents shall be liable under any claim, charge or demand, whether in contract, or otherwise, for any and all loss, cost, charge, claim, demand, fee, or expense of any nature or kind arising out of, connected with, resulting from, or sustained as a result of any radon test.

## RADON INSPECTION DECLARATION OF VOLUNTARY COMPLIANCE

As the responsible party for the test location listed below, I hereby acknowledge receipt of the EPA's *Home Buyer's and Seller's Guide to Radon*. I further understand that potential purchasers and/or lenders will be making important decisions pending the outcome of this test. Given this information I hereby certify that:

- (1) I agree to keep this house closed (except for normal entry and exit) for a minimum of 12 hours prior to the start of the test. If this condition is not met, the test shall be extended a minimum of 12 hours under closed house conditions.
- (2) I agree to keep all doors and windows closed during the entire test period except for normal entry and exit.
- (3) I will not knowingly alter the test environment in any way including, but not limited to, raising or lowering the thermostat(s) or changing HVAC fan controls.
- (4) I will not tamper with, remove, or change the location of the test device(s).
- (5) I will report any circumstances that occur during the test that may influence the final results.
- (6) If I have any questions about the test I will contact the testing firm immediately.
- (7) I have read, understand, and agree to the "Limits of Liability Regarding Radon Testing", and the "Radon Inspection Declaration of Voluntary Compliance".

Occupant or Responsible Party Signature: Client  
Address: 164 Sample Lane  
City Kalispell State MT Zip 59901 Date 11/8/14 - 11/10/14  
Radon Measurement Professional: Jay W. Gorder AARST-NRPP Member 107635 RT\_ Expires 6/30/2016\_

### Testing Firm:

House Detectives, Inc.  
PO Box 357  
Kalispell, MT 59903  
406-756-3636

[info@housedetectivesinc.com](mailto:info@housedetectivesinc.com)



## Radon Inspection Report: Inspection Conditions

Start Date: 11/8/14 End Date: 11/11/14

Start Time: 4:42 pm End Time: 9:42 am

Season:

Winter

Spring

Summer

Fall

**Weather Conditions: (Start of Test)**

Sunny  Cloudy  Rain  Snow  High Winds  Thunderstorms

Temperature: 42F

**Weather Conditions: (End of Test)**

Sunny  Cloudy  Rain  Snow  High Winds  Thunderstorms

Temperature: 14F

Comments: Blowing & drifting snow for about 24 hours from the night of 11/9 through night of 11/10

## Visual Inspection Checklist

### **Basement /Crawlspace**

Type:  Full  Partial  Crawl Space  Slab  None

Floor:  Concrete  Dirt  Wood  Other

Access:

Stairs

Interior Opening

Exterior Opening

Access Blocked

Not Applicable

Comments: \_\_\_\_\_

### **Possible radon entry points:**

	Yes	No	N/A
- Are there cracks in the concrete slab?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
- Are there cracks in the foundation walls?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Are there floor drains with dry p-traps?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Are there sump pumps without sealed covers?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Are there unsealed joints?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Are there areas of exposed earth in the basement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Are there any gaps around service pipes?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- Is there insufficient ventilation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### **Water Service**

Type:  Public  Private  Shared Well  Combination

Radon Water Sample:  Yes  No

# Radon Inspection Report: Mitigation System Checklist

## Mitigation System:

Type: \_\_\_ Active \_\_\_ Passive \_\_\_ Inactive X None

Engaged during testing: \_\_\_ Yes \_\_\_ No

Comments: \_\_\_\_\_  
\_\_\_\_\_

### Active Mitigation System Checklist (If Applicable)

#### Electric Vent Fan:

- Present
- Not Present
- Not Functioning

Comments: \_\_\_\_\_  
\_\_\_\_\_

#### System Failure Warning Device:

- Present
- Not Present
- Not Functioning

Comments: \_\_\_\_\_  
\_\_\_\_\_

#### Vent Pipe (sub-slab to roof):

- Satisfactory \_\_\_ Not Satisfactory

Comments: \_\_\_\_\_  
\_\_\_\_\_

#### Cracks and Joints:

- Sealed
- Not Sealed
- Some areas are unsealed

Comments: \_\_\_\_\_  
\_\_\_\_\_

### Passive Mitigation System Checklist (If Applicable)

#### Vent Pipe (sub-slab to roof):

- Satisfactory
- Not Satisfactory

Comments: \_\_\_\_\_  
\_\_\_\_\_

#### Cracks and Joints:

- Sealed
- Not Sealed
- Some areas are unsealed

Comments: \_\_\_\_\_  
\_\_\_\_\_

#### Vapor Barrier between soil and house:

- Present, not completely sealed \_\_\_ Present & sealed \_\_\_ Partially present or not present

Comments: \_\_\_\_\_  
\_\_\_\_\_

#### Does the mitigation system appear to meet current EPA protocols?

- Yes \_\_\_ No \_\_\_ N/A

Comments: \_\_\_\_\_  
\_\_\_\_\_

## Radon Inspection Report: Mitigation System

### **Vent pipe size/type and labeling**

Are the vent pipe/fittings something other than PVC, ABS (or equivalent).  
Is the vent pipe diameter less than 3" or greater than 4"?  
Are there sections of vent pipe that are not properly labeled as mitigation system where pipe is visible?

<u>Yes</u>	<u>No</u>	<u>N.A.</u>
___	___	<u>X</u>
___	___	<u>X</u>
___	___	<u>X</u>

### **Vent pipe location and installation**

Does the vent pipe terminate within 10-feet of the ground, or have an exhaust point less than 12" above the eave/roof?  
Does the vent pipe terminate within 10-feet of any doors or windows or less than 2-feet above any doors or windows? (also applies to nearby buildings)  
Does the pipe penetrate the firewall without a fire collar/damper present?

<u>Yes</u>	<u>No</u>	<u>N.A.</u>
___	___	<u>X</u>
___	___	<u>X</u>
___	___	<u>X</u>

### **Vent pipe system integrity**

Are there any pipe fittings/connections that appear to be improperly sealed?  
Are there visible openings or breaks in the vent pipe system?  
Is the pressure monitor missing, not operating properly, or inaccessible? (Active systems only)

<u>Yes</u>	<u>No</u>	<u>N.A.</u>
___	___	<u>X</u>
___	___	<u>X</u>
___	___	<u>X</u>

### **Vertical vent pipe penetrations**

Is the caulking/sealing around the vent pipe in the basement floor peeling or coming loose?  
Does the vapor barrier stop short of covering the entire surface or have seams that do not overlap by at least 12"?

<u>Yes</u>	<u>No</u>	<u>N.A.</u>
___	___	<u>X</u>
___	___	<u>X</u>

### **Electrical (Active systems only)**

Does the vent fan cord appear to be more than 6-feet long?  
If the vent fan is hard wired outside the building, is it properly connected to a disconnect switch?  
Is the vent fan wired through a switched circuit?  
Is the circuit breaker that controls the vent fan improperly labeled or not labeled "Radon System"?

<u>Yes</u>	<u>No</u>	<u>N.A.</u>
___	___	<u>X</u>
___	___	<u>X</u>
___	___	<u>X</u>
___	___	<u>X</u>

### **Vent of Mitigation fans**

Is the vent fan mounted on a horizontal section of pipe?  
Is the vent fan located in conditioned space (i.e. not in the attic)?  
*(A fan located in the basement does not meet post-1991 EPA recommendations or standards)*

<u>Yes</u>	<u>No</u>	<u>N.A.</u>
___	___	<u>X</u>
___	___	<u>X</u>

### **Sump**

Is the sump pump open or not properly sealed?  
If the sump is sealed, is it missing a trapped drain or equivalent?

<u>Yes</u>	<u>No</u>	<u>N.A.</u>
___	___	<u>X</u>
___	___	<u>X</u>

**Comments:**

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# **Radon Inspection Report: Testing**

**Duration:**

Short-Term

Long-Term

**Length of test:** 65 Hours

**Testing Device:**

Active

Passive

Combination

None

**Closed House Conditions:**

Yes

No

**Anti-Tampering Mechanisms:**

Yes

No

List: \_\_\_\_\_

**Location of testing device 1:** \_\_NW bedroom\_\_

**Type of device:**

Continuous radon monitor (CRM) - Sun Nuclear  
Model 1028

Charcoal canister

Alpha-track detector

Charcoal liquid scintillation

Electret ion chamber

Continuous working level monitor

**Location of testing device 2:**

N/A

**Type of device:**

Continuous radon monitor (CRM) - Sun Nuclear  
Model 1028

Charcoal canister

Alpha-track detector

Charcoal liquid scintillation

Electret ion chamber

Continuous working level monitor

**Comments:**

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**Radon results:**

	Yes	No
- Is a retest needed for verification of test results?	___	<u>X</u>
- Were there signs of disturbance/tampering?	___	<u>X</u>

**Testing Device 1:**

pCi/L: 1.4

**Testing Device 2:**

pCi/L: N/A

**Average Radon Level pCi/L (testing in lowest level):**

1.4

**Suggested Course of Action:**

- Retest immediately
- Contact mitigation professional
- No action necessary

**Comments:** Re-test every two (2) years or if living conditions change, or a remodel takes place that would change the airflow inside the house.

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***Report delivered to client via:***

- Email to client
- Email to Client Realtor
- Hand delivered to Realtor office
- UPS, Fed Ex, USPS

**Report delivered by House Detectives, Inc. Representative: Jay W. Gorder**

**Radon Measurement Specialist Signature: \_\_\_\_\_**

**Time: 3:00 [ ] am [X] pm**

**Date: 11/11/14**

## **Radon Inspection Report: Informational Notes**

This report includes test results from a radon-testing device that records the levels of radon in an air sample. The actual radon levels in the home may vary depending on many factors including, time, temperature, season, barometric pressure, ventilation, and other factors.

If the level of radon in the home is **greater than 4.0 pCi/L**, you should perform a short-term follow-up test to confirm the first test results. If the average of the two tests is still **greater than 4.0 pCi/L**, consult a professional radon mitigation specialist to discuss your options for reducing the level of radon in the home.

If the level of radon in the home is **equal to or near 4.0 pCi/L**, it may be necessary to perform further radon testing in order to determine the actual level of radon in the home.

If the level of radon in the home is **<4.0 pCi/L**, a follow-up test is not necessary now. Consider testing again in the future. If use of a lower level increases, a new owner occupies the home, or a remodel takes place and changes the interior flow of air, a follow-up test should be completed.

The following websites should be reviewed by the client. These resources can answer any questions about radon, and how to proceed after you have a radon test. Cut and paste the address into your browser, or simply perform a search on the internet of "EPA Radon Guidelines", and these documents will be there.

1. [www.epa.gov/radon/pubs/citguide.html](http://www.epa.gov/radon/pubs/citguide.html) (Citizens Guide to Radon)
2. [www.epa.gov/radon/pubs/hmbyguid.html](http://www.epa.gov/radon/pubs/hmbyguid.html) (Home Buyer/Seller Guide to Radon)
3. [www.epa.gov/radon/pdfs/homes\\_protocols.pdf](http://www.epa.gov/radon/pdfs/homes_protocols.pdf) (Protocols for Radon and Radon Decay Products Measurements in Homes)
4. [www.radon.com/radon/radon\\_levels.html](http://www.radon.com/radon/radon_levels.html) (Acceptable Radon Levels vs Safe Radon Levels)