Website: http://interstatemold.com
Email: admin@interstatemold.com
Phone: (360) 597-3308
Suite C8-422
13215 SE Mill Plain Blvd
Vancouver WA 98684-6991

Interstate Mold Inspection Report
S A M P L E ... R E P O R T

Client(s): Sam Powell
Property address: 123 Main street
Your town, Oregon 97220
email: admin@interstatemold.com
Phone: 360.597.3308
Inspection date: Thursday, December 04, 2014

This report published on Wednesday, December 17, 2014 9:33:29 PM PST

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SPECIAL NOTE: We will NEVER offer an inspection and mold eradication for that would be a CONFLICT OF

INTEREST and we are way above that. If Interstate Mold Inspection determines that a serious mold infestation is found that requires a professional remediation we will offer a listing of qualified mold remediation companies that we have worked with that are honest and trustworthy.

•The Environmental Protection Association (http://www.epa.gov)
•The Consumer Products Safety Commission (http://www.cpsc.gov)
•The Center for Disease Control (http://www.cdc.gov)

SOME OF OUR LICENSES AND CERTIFICATIONS
Certified Environmental Data Resources Inc.
Certified Home & Building Inspection Training Program
Certified American Building Sciences Academy
Certified Allstate Home Inspection & Household Environmental Testing Ltd.
Certified Indoor Environmental Standards 13568
Certified International Assoc. of Certified Indoor Air Consultants IAC2-01-1498
Certified Mold Inspection Consulting & Remediation Organization Inspectors
Certified Mold Inspection Consulting & Remediation Organization Contractors
Certified International Association of Certified Home Inspectors NACHI07012302 [b]

How to Read this Report

This report is organized by the property's functional areas. Within each functional area, descriptive information is listed first and is shown in bold type. Items of concern follow descriptive information. Concerns are shown and sorted according to these types:

	Safety	Poses a safety hazard
	Repair/Replace	Recommend repairing or replacing
	Repair/Maintain	Recommend repair and/or maintenance
	Minor defect	Correction only involves a minor expense
	Maintain	Recommend ongoing maintenance
	Evaluate	Recommend evaluation by a specialist
	Monitor	Recommend monitoring in the future
	Serviceable	Item or component is in serviceable condition
	Comment	For your information

Contact your inspector If there are terms that you do not understand, or visit the glossary of construction terms at http://www.reporthost.com/glossary.asp

General Information

Report number: 1201
Time started: 10:12am
Time finished: 11:20am
Inspection Report delivered by: email
Present during inspection: Client
Client present for discussion at end of inspection: Yes
Weather conditions: Clear, Cloudy, Recent rain
Outdoor temperature (degrees Fahrenheit): 41.7
Outdoor relative humidity (percent): 63.5
Indoor temperature (degrees Fahrenheit): 63.1
Indoor relative humidity (percent): 55
Ground condition: Wet
Inspection fee: 490
Payment method: Check
Spaces below grade: Crawl space

Age of building(s): 1940
Source for building age: Client
Occupied: Yes
Owner / Renter: Renter
Were all windows and doors closed during Air Sampling: Yes
Mold infestation found this inspection: No
Did homeowner/occupant ask for remediation quote?: No
Remediation recommended: No
Air Cell taken This Inspection: Yes
Outside Building: Front
Air Cell Duration (Min.): 10
Air Cell Volume (Liters): 150
SAFE FOR OCCUPANCY?: Yes
AIR SAMPLING RESULTS NEGATIVE: The results of the air sampling within the subject property concluded that the mold spore Count was less than outside air therefore no serious microbial growth infestations were noted. Visual inspection also reported no mold infestations.Although the mold spore was higher than the outside air this was only due to the fact that it was a recent rain and the outside air had relatively no mold spores. On its own the mold spore Count inside the subject property was extremely low.
Inspector's name: Robert, Jeremy
Inches of snow: 1, 2, 3, 4
Payment method: Check, Cash, OnLine, Credit card, Invoiced
Type of building: Single family, Duplex, Triplex, Fourplex, Multiplex, Townhouse, Condo, Manufactured home, Mobile home, Detached garage, Shop, Guest house, Apartment, Commercial, Industrial, warehouse, vehicle, motor home
Age of building(s):
Source for building age: Realtor, Client, Property owner, Property buyer, Seller, Property listing, Tenant, Inspector's estimate
Owner / Renter: Owner, Renter
Mold infestation found this inspection: Yes, No
Remediation recommended: Yes, No

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1) All doors and windows must be closed during the Air O cell sampling. The reason for this is because the air sampling extracts mold spores, dander, pet hairs bug parts and other items from the air inside the home. If windows or doors are left open then the air from the outside will be coming in and the indoor sampling could become compromised and therefore not accurate.

Photo 1-1
Outside air cell outside front of subject house

Photo 1-2
Temperature and humidity recorded

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2) Based on this inspectors opinion, and one or more of the following:
1. The occupants statement of upper respiratory issues that may increase
2. The size of the visual mold found
3. Laboratory results of air sampling
4. Laboratory results of tape or swab tests

IF REMEDIATION IS REQUIRED...
it is not recommended that the occupants remain within the subject property until he remediation company can remediate and or locate the reason for the laboratory analysis.

Once remediation has been accomplished then Interstate Mold Inspection company can return and conduct a clearance test

to verify the property is habitable.

Grounds and Building Exterior

Excessive foliage surrounding subject property: No
Conditions were found that are conducive to increased moisture levels: Yes
Where: Hallway Bathroom floor area only
Yard profile, FRONT: minor slope
Yard profile, BACK: Minor slope
Building siding: Vinyl
Downspouts: Good Condition
Downspouts: in ground
Gutters: acceptable
Roof Material: 3 tab asphalt
Roof Condition: Fair, should be evaluated
AIR SAMPLING RESULTS NEGATIVE: The results of the air sampling within the subject property concluded that the mold spore count was slightly more in both the hallway and the master bedroom than outside air but no serious mold infestations were noted. The reason the spore count was higher inside was because the weather outside was raining prior to sampling. The mold spore count inside the home was relatively low in any case.

3) sections of siding and/or trim were deteriorated. This may increase moisture in the building. A qualified person should repair, replace or install siding or trim as necessary.

Photo 3-1

4) The perimeter grading sloped towards the building in one or more areas. This may increase moisture in and around the building. Recommend grading soil so it slopes down and away from the structure with a slope of at least 5% (10% or better is optimal) for at least 6 feet.

Photo 4-1

Living Room

Limitations: This is NOT a complete home inspection. This is only a Mold inspection completed by Interstate Mold Inspection Company. The following items are not included in this inspection: security, intercom and sound systems; communications wiring; central vacuum systems; elevators and stair lifts; cosmetic deficiencies such as nail-pops, scuff

marks, dents, dings, blemishes or issues due to normal wear and tear in wall, floor and ceiling surfaces and coverings, or in equipment; deficiencies relating to interior decorating; low voltage and gas lighting systems. Any comments made regarding these items are as a courtesy only. Note that the inspector does not evaluate behind or below any areas or items which require moving stored items, furnishings, debris, equipment, floor coverings, insulation or similar materials. The inspector does not test for asbestos, lead, hazardous waste, bacteria, urea formaldehyde urethane, or any other toxic substance. The client should be aware that paint may obscure wall and ceiling potential mold infestations, floor coverings may obscure mold infestations, and furnishings (not movable) may obscure wall, floor mold infestations. If furnishings were present during the inspection, recommend a full evaluation of walls, floors and ceilings that were previously obscured when possible. Determining the cause and/or source of odors is not within the scope of this inspection. These inspection results are for the day and time listed in this report and any mold found growing after the day and time listed is not the responsibility of Interstate Mold Inspection Company.
Type(s) of windows: Vinyl
Potential Mold infestation found: Yes, Slight mold in window tracks
Tape Test taken: No
Swab Test Taken: No
Wall type or covering: Drywall, Paneling
Ceiling type or covering: Acoustic spray
Potential Mold infestation found: No
High Moisture in carpet: No
Carpet lifted and viewed: No
Flooring type or covering: Carpet
Air sampling taken in this room: No

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5) The client said the living room / dining area had a musty odor and an intense inspection revealed no microbial growth in this area.

Photo 5-1
Dining area and living area.

Kitchen

Inspection under sink cabinet: No leaks. All piping secure, All dry
Area Behind Refrigerator: Dry
Type(s) of windows: Vinyl
Potential Mold infestation found: Yes
Tape Test taken: Yes
Swab Test Taken: No
Wall type or covering: Drywall
Ceiling type or covering: Drywall
Flooring type or covering: Vinyl, linoleum or marmoleum
Air sampling taken in this room: No

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6) This area under the kitchen sink has a slight mold infestation on the wall behind the disposal. It is approx. 12" X 10". a tape lift was taken at the base of the wall. The results are attached with this report.
It was recommended that the home owner have the section of wall removed by a licensed contractor or mold remediation contractor.

Photo 6-1
This area under the kitchen sink has a slight mold infestation on the wall behind the disposal. It is approx. 12" X 10". a tape lift was taken at the base of the wall. The results are attached with this report,

Bedroom #1

Type(s) of windows: Vinyl
Potential Mold infestation found: No
Tape Test taken: No
Swab Test Taken: No
Size of potential mold: N/A
Wall type or covering: Drywall
Ceiling type or covering: Acoustic spray
High Moisture in carpet: No
Carpet lifted and viewed: No
Flooring type or covering: Carpet
Air sampling taken in this room: Yes

7) Stains and elevated levels of moisture were not found on all walls and ceiling areas

8)

Photo 8-1
This room was free of any high moisture on exterior walls, and microbial growth.

HVAC

Home heated by: Base board

Garage/Carport

Mold found on walls: No
Excessive moisture: No
Water heater Area: Dry
Air Sampling Taken in This Area: No

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9) This inspector had some concern over mustiness in the garage, however, due to property blockages, a full inspection was not possible at this time.

Photo 9-1

Photo 9-2

MOLD Sample 1 OUTSIDE

General location: Outdoor
Specific location: Outside front door at driveway
Temperature (degrees Fahrenheit): 61.1
Relative humidity (percent): 55
Client authorization: Granted
Lab code: 5918317-1
General type: Air
Notes on sampling method: Sampling set at 10 minutes and 150 m/l
Air count, Aspergillus (per m3): 0
Air count, Alternaria (per m3): 0
Air count, Chaetomium (per m3): 0
Air count, Cladosporium (per m3): 0
Air count, Mucor (per m3): 0
Air count, Penicillium (per m3): 75
Air count, Rhizomucor (per m3): 0
Air count, Stachybotrys (per m3): 0
Air count, Trichoderma (per m3): 0
Air count, Ulocladium (per m3): 36
Other: Basidiospores (per m3) 960
Conclusions and recommendations: SPECIAL NOTE: DUE TO RECENT RAIN THE MOLD SPORE COUNT OUTSIDE WAS EXTREMELY LOW.
A basidiospore is a reproductive spore produced by Basidiomycete fungi. Basidiospores typically each contain one haploid nucleus that is the product of meiosis, and they are produced by specialized fungal cells called basidia. In gills under a cap of one common species in the phylum of Basidiomycete, there exist millions of basidia. Mature state of basidia has the base usually topped with four basidiospores in which contains one from the two haploid nucleus obtained from the process of meiosis. Because of this, a single mushroom has the ability to release a billion spores. Most basidiospores are forcibly discharged, and are thus considered ballistospores.

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10) The outside sampling was conducted in the front area of the home near the driveway. Equipment set at 10 minutes at 150 m/L. Due to the continual light rain the majority of mold spores in the air have dropped to the ground.

Photo 10-1
Clients home. 3 air O Cells taken

Photo 10-2
Outside air cell outside front of subject house

Photo 10-3
Temperature and humidity recorded

MOLD Sample 2 HALLWAY/BATHROOM

General location: Indoor
Specific location: Hallway outside the main bathroom
Temperature (degrees Fahrenheit): 61.1
Relative humidity (percent): 55
Client authorization: Granted
Lab code: 5918318-1
General type: Air
Notes on sampling method: 10 Minutes 150 m/L
Species found:
Air count, Aspergillus (per m3): 450
Air count, Chaetomium (per m3): 7
Air count, Cladosporium (per m3): 240
Other: 130
Conclusions and recommendations: A basidiospore is a reproductive spore produced by Basidiomycete fungi. Basidiospores typically each contain one haploid nucleus that is the product of meiosis, and they are produced by specialized fungal cells called basidia. In gills under a cap of one common species in the phylum of Basidiomycota, there exist millions of basidia. Mature state of basidia has the base usually topped with four basidiospores in which contains one from the two haploid nucleus obtained from the process of meiosis. Because of this, a single mushroom has the ability to release a billion spores. Most basidiospores are forcibly discharged, and are thus considered ballistospores.

Aspergillus
The analysis from our laboratory shows the results of the tape test sample to be Aspergillus type mold. There are approximately 200 different species of Aspergillus, 16 of which have been documented as etiological agents of human disease. The disease is caused by these species rarely occur in individuals with normal functioning immune systems. Toxin production is dependent on the species or the strain within a species or on the food source. These fungi are found in soil, compost piles, plant debris and stored grain, as well as on water damaged building materials.

Penicillium / Aspergillus:
Distribution: Penicillium / Aspergillus are two separate genera of molds that are so visually similar that they are commonly discussed together as a group. Together, there are approximately 400 different species of Penicillium /Aspergillus.

How it is spread: Penicillium / Aspergillus produce dry spore types that are easily dispersed through the air by wind. These fungi serve as a food source for mites, and therefore can be dispersed by mites and various insects as well.

Where it is found outdoors: Penicillium / Aspergillus are found in soils, decaying plant debris, compost piles, fruit rot and some petroleum-based fuels.

Where it is found indoors: Penicillium / Aspergillus are found throughout the home. They are common in house dust, growing on wallpaper, wallpaper glue, decaying fabrics, wallboard, moist chipboards, and behind paint. They have also been isolated from blue rot in apples, dried foodstuffs, cheeses, fresh herbs, spices, dry cereals, nuts, onions, and oranges.

Cladosporium:
Distribution: Cladosporium is an abundant mold worldwide and is normally one of the most abundant spore types present in both indoor or outdoor air samples. This genus contains around 20 - 30 different species.
How it is spread: Cladosporium produces dry spores that are formed in branching chains. Spores are released by twisting of the spore-bearing hyphae as they dry. Thus, the spores are most abundant in dry weather.
Where it is found outdoors: Cladosporium is found in a wide variety of soils, in plant litter, and on old and decaying plants and leaves. Some species are plant pathogens
Where it is found indoors: Cladosporium can be found anywhere indoors, including textiles, bathroom tiles, wood, moist windowsills, and any wet areas in a home. Some species of Cladosporium grow at temperatures near or below 0(C) / 32(F) and can often be found on refrigerated foodstuffs and even frozen meat.
Remediation Recommended: It is the recommendation of this certified inspector that although the mold spore Count inside the subject property was not very high and no mold infestations were found, the moisture readings on the floor of the hallway bathroom were extremely high. The client stated that there had been no showers or baths taken in that room in a couple of days therefore there was no reason for the high moisture content on the linoleum. It is recommended that a contractor or mold remediation company evaluates the floor and if needed remove the subfloor and inspect for dry rot and mold infestation. Once this has been completed then interstate mold inspection can return before the subfloor is reinstalled and inspect for mold.
Species found:

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11)

Photo 11-1
Moisture reading medium to high. Recommend that a qualified contractor or Remediation company evaluate the sub floor and check for wood rot and mold infestations.

Photo 11-2
Location of moisture readings

Photo 11-3
Air O Cell sampling located in Hallway

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12)

MOLD Sample 3 MASTER BEDROOM

General location: Indoor, air sample
Specific location: Master Bedroom end of bed near 2nd bathroom
Temperature (degrees Fahrenheit): 61.1
Relative humidity (percent): 55
Client authorization: Granted
Reason: Client felt there may be a mold issue in this room
Lab code: 5918319-1
General type: Air
Notes on sampling method: 10 Minutes 150m/L
Species found: Aspergillus, Cladosporium
Air count, Aspergillus (pcm): 160
Air count, Cladosporium (pcm): 110
Other: basidiospores 190
Conclusions and recommendations: The results of the air sampling in the master bedroom showed a slight reading of some spores however the possibility of the spores emanating from the hallway may have caused the rise. A through inspection in this room revealed no microbial growth, and all walls showed very low or non existent moisture readings.

Cladosporium
is a genus of fungi including some of the most common indoor and outdoor molds. Species produce olive-green to brown or black colonies, and have dark-pigmented conidia that are formed in simple or branching chains.

The many species of Cladosporium are commonly found on living and dead plant material. Some species are plant pathogens, others parasitize other fungi. Cladosporium spores are wind-dispersed and they are often extremely abundant in outdoor air. Indoors Cladosporium species may grow on surfaces when moisture is present.
Cladosporium fulvum, cause of tomato leaf mold, has been an important genetic model, in that the genetics of host resistance are understood.

Aspergillus is a genus consisting of several hundred mold species found in various climates worldwide.

Aspergillus was first catalogued in 1729 by the Italian priest and biologist Pier Antonio Micheli. Viewing the fungi under a microscope, Micheli was reminded of the shape of an aspergillum (holy water sprinkler), from Latin spargere (to sprinkle), and named the genus accordingly.[1] Today, aspergillum is also the name of an asexual spore-forming structure common to all Aspergillus species; around one-third of species are also known to have a sexual stage.
Remediation Recommended:

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13) A through inspection in this room revealed no microbial growth, and all walls showed very low or non existent moisture readings.

It is recommended that the homeowner monitor this area and watch for any growth along exterior walls.

Photo 13-1
Moisture readings on exterior walls very low in this area

Photo 13-2
Master bedroom with air sampling equipment in place extracting breathable air at a rate of 150 m/L

Photo 13-3
Exterior wall moisture reading very low. No concerns

Remediation Protocol

14) Interstate Mold Inspection Remediation Protocol

NOTE: This protocol is included within this particular report for information only.
All the professional opinions presented in this report are based solely on the scope of work conducted and sources referred to in our report. The data presented by the Interstate Mold Certified Inspector in this report was collected and analyzed using generally accepted industry methods and practices at the time the report was generated. This report represents the conditions, locations and material that were observed at the time the fieldwork was conducted. The scope of work for this project did not include an assessment of other environmental conditions which might exist on the property. No inferences regarding other conditions, locations or materials at a later or earlier time may be made based on the contact of this report. No warranty is made. Interstate Mold Inspection's liability and that of its contractors and subcontractors, arising from any services rendered hereunder, shall not exceed the total fee paid by the client to Interstate Mold Inspection. This report was prepared for the sole use of our client. The use of this report by anyone other than our client, their repetitive or Interstate Mold Inspection is strictly prohibited without the expressed written consent of Interstate Mold Inspection Company. Portions of this report may not be used independently of the entire report.

STEP #1: INSPECTION

* To determine whether the property has a mold problem requiring remediation, the certified inspector, uses a wide variety of mold testing techniques and technologies. The air is sampled via Air-O-Cell Sampler and topical samples are taken through the use of swabs and tape lifts. This process enables the certified inspector to define the areas of removal and provide oversight for the project.

* Consult with the construction and remodeling group prior to removal to facilitate efficient reconstruction of the space.

* Develop a project time line and communicate this with building representatives prior to the remediation and construction project. Provide contact numbers if occupants have questions about the project.

STEP #2: PERSONNEL

* Individuals trained in the handling of hazardous materials.

* Provide right-to-know training on exposure to the chemicals used and the health effects of exposure to the fungal organisms.

STEP #3: PPE

* Full faced negative pressure respirators (North 7600 series) with CD/CL/HC/HF/OV/SD/P100 cartridges. The cartridge protects against chlorine dioxide, chlorine, hydrogen chloride, hydrogen fluoride, organic vapor, sulfur dioxide and provides a HEPA filter to protect against particles.

* Disposable tyvek coveralls covering both the head and the shoes.

* Gloves: Neoprene, Rubber, Leather or cotton depending on the material to be removed. Leather is recommended when sharp material is expected to be encountered during the demolition.

* Tools: Pliers or cutters to break up metal mesh in plaster walls. These and other tools are used to reduce skin contact with sharp objects.

STEP #4: HYGIENE

* Wash hands after exiting the enclosure and prior to using the hands to place anything in the mouth. Fungal organisms can cause dermatitis. Ingestion of the bacteria or fungi can cause severe diarrhea.

* During the exit from the enclosure, remove the coveralls leaving them inside either the enclosure or the first stage (dirty room) of the two stage decontamination room. In some cases, space will not allow for construction of the decontamination room.

* In the change area, take off the respirator. Remove the cartridges. Clean the surfaces of the cartridges with a disinfectant wipe and keep the cartridges for reuse. Soak and clean the respirator in a gallon of disinfectant (1/2 oz. A-33 quaternary ammonia disinfectant per gallon of water). Rinse the respirator in water, clean with a disinfectant wipe and dry with a clean towel.

* After an exhaust fan with a HEPA filter is used on a job site, the prefilter is covered with 4-6 mil poly and sealed with duct tape.

STEP #5: CONTAINMENT OF AFFECTED AREA

* Complete isolation of work area from occupied spaces using plastic (4-6 mil poly) sheeting sealed with duct tape (including ventilation ducts/grills, fixtures and other openings).

* Use an exhaust fan with a HEPA filter to generate negative pressurization. Use the appropriate sized unit for the space. For example, an Ulti Vac may be used for a glove bag removal, a HEPA Jr. for an office sized room and larger units for bigger areas. Do not use the same units for asbestos and mold removal. If units are shared, a break in the HEPA filter could change a mold containment into an asbestos containment.

* The two sections of the Ulti Vacs are reinforced with duct tape wrapped around the taped junction in the middle of the vacuum unit.

* If space allows, construct a two stage decontamination room with a changing area and a dirty room attached to the entrance of the containment area.

STEP #6: CONTROL OF EXPOSURE TO ADJACENT AREAS

* Vacating people from spaces in not necessary but is recommended for individuals with reduced immune systems, infants, recent surgery patients, people with chronic inflammatory lung diseases or individuals with respiratory health concerns (asthma, hypersensitivity pneumonitis and severe allergies).

* In general, there are fewer occupant complaints about the remediation if the adjacent spaces are vacated. The complaints about construction related odors are reduced and there is more space to place cleanup material.

STEP #7: PAINTING AND APPLYING BENZALKONIUM CHLORIDE
* Exhaust fan discharge is outside building - Keep HEPA exhaust fan on during the application of Benzalkonium Chloride and anti-microbial paint. Make sure adjacent outside windows are shut, the discharge is not close to an air intake, and window air conditions are shut off or set on re-circulation.

* Exhaust fan discharge is inside building - Shut off HEPA exhaust fan during the application of Benzallkonium Chloride and anti-microbial paint. Turn the fan back on when the odor is no longer noticeable.

* Applying Benzalkonium Chloride to visible fungal growth prior to removal of material. Apply the Benzallkonium Chloride solution to the surface and wait sixty minutes prior to removing the material. This provides sufficient time for the Benzalkonium Chloride to disinfect the material and reduces the dust generated because the material is wetted.

* In some cases, a surface is lightly misted with a Benzalkonium Chloride solution prior to painting. Painting of the surface may begin within 90 minutes of the Benzallkonium Chloride misting.

STEP #8: REMOVAL OF CONTAINMENT MATERIALS

* Containment materials that cannot be cleaned should be removed from the building in sealed plastic bags. The outside of the bags could be cleaned with a damp cloth and a detergent solution or HELP vacuumed in the decontamination chamber prior to their transport to uncontaminated areas of the building. There are no special requirements for the disposal of moldy materials. Moldy materials that are bagged can be disposed of with other general waste.

* Dirt, debris and broken plaster may be placed in 55 gallon drums inside the containment area. Before removal from the containment area, close the drum and clean the outside surface.

STEP #9: CLEANING OF THE CONTAINMENT AREA

* The contained area and decontamination room should be HEPA vacuumed and cleaned with a damp cloth and/or mop with a detergent solution and be visibly clean prior to the removal of isolation barriers.

STEP #10: CONTAINMENT OF AREA USED DURING RECONSTRUCTION
* After the containment area has been cleaned, the enclosure can be used to contain the dusts generated by the sheetrock sanding and taping activities. This is done to reduce the problems with cleanup when reconstruction is completed. The use of HEPA exhaust filter is not required. The two stage decontamination area is also not needed.

STEP #11: FINAL INSPECTION

* Prior to re-occupancy of the space, a visual inspection and or air sampling will be done by any inspector from INTERSTATE MOLD INSPECTION COMPANY. Re-occupancy may occur when the space passes the inspection.

STEP #12" REFERENCES

Guidelines on Assessment and Remediation of Fungi in Indoor Environments, New York City Department of Health Bureau of Environment & Occupational Disease Epidemiology. April, 2000 16p.

Managing Water Infiltration in Buildings, U of MN DEHS and Institute for Environmental Assessment. N.G. Carlson and A. Quraishi - 1998.

Additional procedures developed in consultation with Leviticus Corporation.

RECOMMENDED GUIDELINES
Remediators should perform remediation in compliance with the Institute of Inspection Cleaning and Restoration Certification (IICRC) mold removal guidelines, The New York City Department of Health & Mental Hygiene Bureau of Environmental & Occupational Disease Epidemiology guidelines
or in compliance with EPA mold removal guidelines for schools and commercial buildings. Air conditioner remediation should be done by a licensed AC contractor who specializes in cleaning mold contaminated HVAC systems. HVAC remediation work should be done in compliance with NADCA recommendations. The remediator should follow any applicable recommendations that the indoor environmental professional included below.

CONTRACTOR RESPONSIBILITIES
Remediation services should be rendered only by a professional, experienced, mold remediator who can verify the following:

proper insurance coverage, proper certifications in mold remediation by a non-profit organization (such as IICRC, or Amlaq,) and possesses any licenses required in your area.
All work shall be done in strict accordance with all applicable regulations, standards, and codes.
It is highly recommended that the remediator use a legal written contract which outlines the contractor's responsibilities and client's obligations as well as cost estimates, limitations and disclaimers. The agreement must be made prior to remediation regarding who is responsible for build-back of building materials after moldy building materials have been removed. All personal property removed by the remediator shall be returned to their proper locations after remediation is complete.
Employees must demonstrate completion of mold remediation training and respirator training. Employees must demonstrate hazardous communication training as required by the US Occupational Safety and Health Administration (OSHA 29 CFR 1910.1200). Tyvec coveralls should be utilized along with proper gloves, goggles, and foot cover. NIOSH-approved respirators and cartridges are highly recommended. Adequate respiratory protection must be utilized in accordance with OSHA 29 CFR 1910.134. In addition, the extent of coverall use and selection of respirator type and selection of containment type at this specific job site must comply with the mold removal guidelines prescribed by New York City Department of Health & Mental Hygiene Bureau of Environmental & Occupational Disease Epidemiology.
The remediator shall use all appropriate controls and work practices which are standard in the indoor air environment and mold remediation industry that apply, regardless of the inclusion or exclusion of such standards in this document. Should the above scope or protocol or any part thereof not be specifically adhered to, the consultant and mold inspection company shall be held harmless by all parties.

CONTAINMENT
The containment enclosure will be in the form of 6 mil thick polyethylene sheeting. The remediator shall enclose in 6 mil polyethylene sheeting any and all HVAC system returns and air vents, and any ceiling voids above ceiling tile in the containment area that are used as return air plenums.
Also, all conduits, chases, risers and doors within the containment area shall be sealed with 6 mil plastic to minimize the migration of contaminants to other parts of the building. It is highly recommended that warning signs be posted that inform persons that mold remediation work is ongoing. In addition, it is highly recommended that remediators restrict access to the work areas.
Pressure in the containment enclosure must be negative at least 5 pascals or 0.02 inches water gauge relative to non contaminated areas outside of the containment enclosure. Contractors can verify negative pressure with a digital manometer. It is highly recommended that containment barriers be constructed so that containment flaps close if negative pressure is lost. In addition to the creation of negative pressure, it is highly recommended that a containment area achieve four to twelve air changes per hour for containment air ventilation and dilution.
Air being removed from the containment enclosure should be HEPA filtered and emptied outside, away from air intakes. If it is not possible to exhaust air outside, the air must be HEPA filtered and a particle counter should be utilized to confirm proper function of the filter. Air scrubbers equipped with HEPA filters and capable of at least 600 to 1,000 cfm must be used in all enclosed work areas during remediation and for at least 48 hours after remediation. Expanding containment may be necessary when hidden fungal contamination is discovered. The creation of negative pressure differentials may create a risk of carbon monoxide exposure from back drafting of carbon monoxide, or fire hazards due to rollout of fire from gas appliances. Caution, judgment, and proper planning must be used whenever gas appliances, fireplaces, laboratory hoods and other potential pathways which may be affected by the creation of nearby negative pressure. Negatively pressurized containment in hot humid climates or seasons can cause humidity to be sucked into containment areas through openings in walls, ceilings, and floors.

HVAC SYSTEM SHUT DOWN
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4. Using a sprayer, thoroughly saturate the entire area with the pre-mixed biocide (Benzalkonium Chloride or Lophene). Let dry completely.

5. Repeat step number four.I

6. Spray or brush on an antimicrobial sealant (Tim bor, fosters). Complete coverage is essential.

7. Perform Interstate Mold Inspection clearance tests to verify any mold infestation has been irradiated.

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15)

Photo 15-1

Photo 15-2

Photo X-1

Photo X-2
Gutters are in good working order and troughs are clean

Photo X-3
Windows are vinyl framed and susceptible to mold from condensation

Photo X-5

Photo X-4

Photo X-6

THANK YOU FOR YOUR BUSINESS and for using Interstate Mold Inspection for your mold inspection needs. Your business is very important to us. We appreciate each customer. If you are happy with our services please refer us to your friends, your realtor and anyone you believe could benefit from our services. If we can help in anyway after the inspection, please call or Email us at admin@interstatemold.com or telephone at 360-597-3308 or leave a comment on our web site www.interstatemold.com.
We conduct mold inspections, Air samplings, tape lifts, swab samples, moisture readings, clearance testing.
Residential * Commercial * Low income Housing * New Housing * Old Housing * Condominiums Real Estate * Mortgage Companies * Trailers * Offices * Schools * Hospitals * Mobile Homes * Insurance companies * Roof Leaks * Window Leaks * Siding Leaks * Dampness in basements * Plumbing Leaks. Anywhere mold can grow we can find it
Interstate Mold Inspection Company strives to become the best MOLD Inspection Company in the Northwest.

Website: http://interstatemold.com
Email: admin@interstatemold.com
Phone: (360) 597-3308
Suite C8-422
13215 SE Mill Plain Blvd
Vancouver WA 98684-6991

Summary

Client(s): Sam Powell
Property address: 123 Main street
Your town, Oregon 97220
email: admin@interstatemold.com
Phone: 360.597.3308
Inspection date: Thursday, December 04, 2014

This report published on Wednesday, December 17, 2014 9:33:29 PM PST

Thank you for using Interstate Mold Inspection for your mold inspection needs. Your business is very important to us.

INTERSTATE MOLD INSPECTION COMPANY
SOME LICENSES AND CERTIFICATIONS

Certified Environmental Data Resources Inc.
Certified Home & Building Inspection Training Program
Certified American Building Sciences Academy
Certified Allstate Home Inspection & Household Environmental Testing Ltd.

Certified Indoor Environmental Standards 13568
Certified International Assoc. of Certified Indoor Air Consultants IAC2-01-1498
Certified Mold Inspection Consulting & Remediation Organization Inspectors
Certified Mold Inspection Consulting & Remediation Organization Contractors
Certified International Association of Certified Home Inspectors NACHI07012302
Certified International Assoc. of Certified Indoor Air Consultants IAC2-03-7658[b]

Concerns are shown and sorted according to these types:

	Safety	Poses a safety hazard
	Repair / Replace	Recommend repairing or replacing
	Repair / Maintain	Recommend repair and/or maintenance
	Minor defect	Correction only involves a minor expense
	Maintain	Recommend ongoing maintenance
	Evaluate	Recommend evaluation by a specialist
	Monitor	Recommend monitoring in the future
	Serviceable	Item or component is in serviceable condition
	Comment	For your information

General Information

1 - All doors and windows must be closed during the Air O cell sampling. The reason for this is because the air sampling extracts mold spores, dander, pet hairs bug parts and other items from the air inside the home. If windows or doors are left open then the air from the outside will be coming in and the indoor sampling could become compromised and therefore not accurate.

Grounds and Building Exterior

3 - sections of siding and/or trim were deteriorated. This may increase moisture in the building. A qualified person should repair, replace or install siding or trim as necessary.

4 - The perimeter grading sloped towards the building in one or more areas. This may increase moisture in and around the building. Recommend grading soil so it slopes down and away from the structure with a slope of at least 5% (10% or better is optimal) for at least 6 feet.

Kitchen

6 - This area under the kitchen sink has a slight mold infestation on the wall behind the disposal. It is approx. 12" X 10". a tape lift was taken at the base of the wall. The results are attached with this report.
It was recommended that the home owner have the section of wall removed by a licensed contractor or mold remediation contractor.

Bedroom #1

7 - Stains and elevated levels of moisture were not found on all walls and ceiling areas

Garage/Carport

9 - This inspector had some concern over mustiness in the garage, however, due to property blockages, a full inspection was not possible at this time.

MOLD Sample 3 MASTER BEDROOM

13 - A through inspection in this room revealed no microbial growth, and all walls showed very low or non existent moisture readings.

It is recommended that the homeowner monitor this area and watch for any growth along exterior walls.

Remediation Protocol

14 - Interstate Mold Inspection Remediation Protocol

NOTE: This protocol is included within this particular report for information only.
All the professional opinions presented in this report are based solely on the scope of work conducted and sources referred to in our report. The data presented by the Interstate Mold Certified Inspector in this report was collected and analyzed using generally accepted industry methods and practices at the time the report was generated. This report represents the conditions, locations and material that were observed at the time the fieldwork was conducted. The scope of work for this project did not include an assessment of other environmental conditions which might exist on the property. No inferences regarding other conditions, locations or materials at a later or earlier time may be made based on the contact of this report. No warranty is made. Interstate Mold Inspection's liability and that of its contractors and subcontractors, arising from any services rendered hereunder, shall not exceed the total fee paid by the client to Interstate Mold Inspection. This report was prepared for the sole use of our client. The use of this report by anyone other than our client, their repetitive or Interstate Mold Inspection is strictly prohibited without the expressed written consent of Interstate Mold Inspection Company. Portions of this report may not be used independently of the entire report.

STEP #1: INSPECTION

* To determine whether the property has a mold problem requiring remediation, the certified inspector, uses a wide variety of mold testing techniques and technologies. The air is sampled via Air-O-Cell Sampler and topical samples are taken through the use of swabs and tape lifts. This process enables the certified inspector to define the areas of removal and provide oversight for the project.

* Consult with the construction and remodeling group prior to removal to facilitate efficient reconstruction of the space.

* Develop a project time line and communicate this with building representatives prior to the remediation and construction project. Provide contact numbers if occupants have questions about the project.

STEP #2: PERSONNEL

* Individuals trained in the handling of hazardous materials.

* Provide right-to-know training on exposure to the chemicals used and the health effects of exposure to the fungal organisms.

STEP #3: PPE

* Full faced negative pressure respirators (North 7600 series) with CD/CL/HC/HF/OV/SD/P100 cartridges. The cartridge protects against chlorine dioxide, chlorine, hydrogen chloride, hydrogen fluoride, organic vapor, sulfur dioxide and provides a HEPA filter to protect against particles.

* Disposable tyvek coveralls covering both the head and the shoes.

* Gloves: Neoprene, Rubber, Leather or cotton depending on the material to be removed. Leather is recommended when sharp material is expected to be encountered during the demolition.

* Tools: Pliers or cutters to break up metal mesh in plaster walls. These and other tools are used to reduce skin contact with sharp objects.

STEP #4: HYGIENE

* Wash hands after exiting the enclosure and prior to using the hands to place anything in the mouth. Fungal organisms can cause dermatitis. Ingestion of the bacteria or fungi can cause severe diarrhea.

* During the exit from the enclosure, remove the coveralls leaving them inside either the enclosure or the first stage (dirty room) of the two stage decontamination room. In some cases, space will not allow for construction of the decontamination room.

* In the change area, take off the respirator. Remove the cartridges. Clean the surfaces of the cartridges with a disinfectant wipe and keep the cartridges for reuse. Soak and clean the respirator in a gallon of disinfectant (1/2 oz. A-33 quaternary ammonia disinfectant per gallon of water). Rinse the respirator in water, clean with a disinfectant wipe and dry with a clean towel.

* After an exhaust fan with a HEPA filter is used on a job site, the prefilter is covered with 4-6 mil poly and sealed with duct tape.

STEP #5: CONTAINMENT OF AFFECTED AREA

* Complete isolation of work area from occupied spaces using plastic (4-6 mil poly) sheeting sealed with duct tape (including ventilation ducts/grills, fixtures and other openings).

* Use an exhaust fan with a HEPA filter to generate negative pressurization. Use the appropriate sized unit for the space. For example, an Ulti Vac may be used for a glove bag removal, a HEPA Jr. for an office sized room and larger units for bigger areas. Do not use the same units for asbestos and mold removal. If units are shared, a break in the HEPA filter could change a mold containment into an asbestos containment.

* The two sections of the Ulti Vacs are reinforced with duct tape wrapped around the taped junction in the middle of the vacuum unit.

* If space allows, construct a two stage decontamination room with a changing area and a dirty room attached to the entrance of the containment area.

STEP #6: CONTROL OF EXPOSURE TO ADJACENT AREAS

* Vacating people from spaces in not necessary but is recommended for individuals with reduced immune systems, infants, recent surgery patients, people with chronic inflammatory lung diseases or individuals with respiratory health concerns

(asthma, hypersensitivity pneumonitis and severe allergies).

* In general, there are fewer occupant complaints about the remediation if the adjacent spaces are vacated. The complaints about construction related odors are reduced and there is more space to place cleanup material.

STEP #7: PAINTING AND APPLYING BENZALKONIUM CHLORIDE
* Exhaust fan discharge is outside building - Keep HEPA exhaust fan on during the application of Benzalkonium Chloride and anti-microbial paint. Make sure adjacent outside windows are shut, the discharge is not close to an air intake, and window air conditions are shut off or set on re-circulation.

* Exhaust fan discharge is inside building - Shut off HEPA exhaust fan during the application of Benzallkonium Chloride and anti-microbial paint. Turn the fan back on when the odor is no longer noticeable.

* Applying Benzalkonium Chloride to visible fungal growth prior to removal of material. Apply the Benzallkonium Chloride solution to the surface and wait sixty minutes prior to removing the material. This provides sufficient time for the Benzalkonium Chloride to disinfect the material and reduces the dust generated because the material is wetted.

* In some cases, a surface is lightly misted with a Benzalkonium Chloride solution prior to painting. Painting of the surface may begin within 90 minutes of the Benzallkonium Chloride misting.

STEP #8: REMOVAL OF CONTAINMENT MATERIALS

* Containment materials that cannot be cleaned should be removed from the building in sealed plastic bags. The outside of the bags could be cleaned with a damp cloth and a detergent solution or HELP vacuumed in the decontamination chamber prior to their transport to uncontaminated areas of the building. There are no special requirements for the disposal of moldy materials. Moldy materials that are bagged can be disposed of with other general waste.

* Dirt, debris and broken plaster may be placed in 55 gallon drums inside the containment area. Before removal from the containment area, close the drum and clean the outside surface.

STEP #9: CLEANING OF THE CONTAINMENT AREA

* The contained area and decontamination room should be HEPA vacuumed and cleaned with a damp cloth and/or mop with a detergent solution and be visibly clean prior to the removal of isolation barriers.

STEP #10: CONTAINMENT OF AREA USED DURING RECONSTRUCTION
* After the containment area has been cleaned, the enclosure can be used to contain the dusts generated by the sheetrock sanding and taping activities. This is done to reduce the problems with cleanup when reconstruction is completed. The use of HEPA exhaust filter is not required. The two stage decontamination area is also not needed.

STEP #11: FINAL INSPECTION

* Prior to re-occupancy of the space, a visual inspection and or air sampling will be done by any inspector from INTERSTATE MOLD INSPECTION COMPANY. Re-occupancy may occur when the space passes the inspection.

STEP #12" REFERENCES

Guidelines on Assessment and Remediation of Fungi in Indoor Environments, New York City Department of Health Bureau of Environment & Occupational Disease Epidemiology. April, 2000 16p.

Managing Water Infiltration in Buildings, U of MN DEHS and Institute for Environmental Assessment. N.G. Carlson and A. Quraishi - 1998.

Additional procedures developed in consultation with Leviticus Corporation.

RECOMMENDED GUIDELINES
Remediators should perform remediation in compliance with the Institute of Inspection Cleaning and Restoration Certification (IICRC) mold removal guidelines, The New York City Department of Health & Mental Hygiene Bureau of Environmental & Occupational Disease Epidemiology guidelines
or in compliance with EPA mold removal guidelines for schools and commercial buildings. Air conditioner remediation should be done by a licensed AC contractor who specializes in cleaning mold contaminated HVAC systems. HVAC remediation work should be done in compliance with NADCA recommendations. The remediator should follow any applicable recommendations that the indoor environmental professional included below.

CONTRACTOR RESPONSIBILITIES
Remediation services should be rendered only by a professional, experienced, mold remediator who can verify the following: proper insurance coverage, proper certifications in mold remediation by a non-profit organization (such as IICRC, or Amlaq,) and possesses any licenses required in your area.
All work shall be done in strict accordance with all applicable regulations, standards, and codes.
It is highly recommended that the remediator use a legal written contract which outlines the contractor's responsibilities and client's obligations as well as cost estimates, limitations and disclaimers. The agreement must be made prior to remediation regarding who is responsible for build-back of building materials after moldy building materials have been removed. All personal property removed by the remediator shall be returned to their proper locations after remediation is complete.
Employees must demonstrate completion of mold remediation training and respirator training. Employees must demonstrate hazardous communication training as required by the US Occupational Safety and Health Administration (OSHA 29 CFR 1910.1200). Tyvec coveralls should be utilized along with proper gloves, goggles, and foot cover. NIOSH-approved respirators and cartridges are highly recommended. Adequate respiratory protection must be utilized in accordance with OSHA 29 CFR 1910.134. In addition, the extent of coverall use and selection of respirator type and selection of containment type at this specific job site must comply with the mold removal guidelines prescribed by New York City Department of Health & Mental Hygiene Bureau of Environmental & Occupational Disease Epidemiology.
The remediator shall use all appropriate controls and work practices which are standard in the indoor air environment and mold remediation industry that apply, regardless of the inclusion or exclusion of such standards in this document. Should the above scope or protocol or any part thereof not be specifically adhered to, the consultant and mold inspection company shall be held harmless by all parties.

CONTAINMENT
The containment enclosure will be in the form of 6 mil thick polyethylene sheeting. The remediator shall enclose in 6 mil polyethylene sheeting any and all HVAC system returns and air vents, and any ceiling voids above ceiling tile in the containment area that are used as return air plenums.
Also, all conduits, chases, risers and doors within the containment area shall be sealed with 6 mil plastic to minimize the migration of contaminants to other parts of the building. It is highly recommended that warning signs be posted that inform persons that mold remediation work is ongoing. In addition, it is highly recommended that remediators restrict access to the work areas.
Pressure in the containment enclosure must be negative at least 5 pascals or 0.02 inches water gauge relative to non contaminated areas outside of the containment enclosure. Contractors can verify negative pressure with a digital manometer. It is highly recommended that containment barriers be constructed so that containment flaps close if negative pressure is lost. In addition to the creation of negative pressure, it is highly recommended that a containment area achieve four to twelve air changes per hour for containment air ventilation and dilution.
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