



**Guaranteed  
Property  
Inspections**

# Inspection Report

**Mary Smith**

**Property Address:**

123 Street  
Any Town CA



**Guaranteed Property Inspection & Mold Investigations Inc.**

**Steve Zivolich, MA, CMC, ACI, ASHI, CREIA, ACAC**  
**[www.gpinspect.com](http://www.gpinspect.com)**  
**888.252.2274**

# Table of Contents

[Cover Page](#)

[Table of Contents](#)

[Intro Page](#)

[I INTERIOR](#)

[II METHODS AND PROCEDURES](#)

[III LIMITATIONS AND CODE OF ETHICS](#)

[Invoice](#)

[Back Page](#)

<b>Date:</b> 11/28/2015	<b>Time:</b>	<b>Report ID:</b> roberts112815
<b>Property:</b> 123 Street Any Town CA	<b>Customer:</b> Mary Smith	<b>Real Estate Professional:</b>

**Whether this report reveals mold in the building or not, the customer, should consider:**

- 1. Whether or not to have any sample tests performed at any area that was noted in the report: "Visible Evidence Present".***
- 2. Whether or not to hire a qualified ACAC certified mold remediation company for corrective procedures either now, before the lab tests results, or afterwards.***

**Comment Key or Definitions**

The following definitions of comment descriptions represent this inspection report. All comments by the inspector should be considered.

**No Visible Evidence (NVE)** = The physical inspection of accessible surface areas did not indicate any moisture stains, mold-like substance or growth.

**Visible Evidence Present (VEP)** = There was a moisture stain, mold-like substance or growth seen on the surface that would suggest the presence of mold, fungi or microbial activity. A sample collect for a laboratory analysis for this area should be considered.

**Authorized (ATH)** = A microbial sample was collected and submitted to an AHIA certified laboratory for analysis.

**Moisture Evidence Present (MEP)** = Moisture signs, or elevation measurements are present. Moisture signs or elevated measurements can cause viable mold or other microbial growth.

**Probable Contamination (PC)** = Based on the physical inspection, probable mold or other microbial contamination is present in this area.

**Client Present:**  
Yes

**Radon Test:**  
Yes

# I. INTERIOR

## Items

### 1.0 COLLECTED SAMPLE(S) INSIDE HOME

Comments: (Authorized- sample sent to Lab)

Air samples were collected inside the containment, and outside the containment at the lower office.

### 1.1 POST REMEDIATION (CLEARANCE)

Comments: No Visible Evidence

(1) The containment was in place.

There was no visible debris or mold in the containment.

Moisture meter and RH test measurements were normal.

Air quality testing in and outside the containment indicated normal fungal ecology.

Re-construction of the area may begin, further mold remediation is not needed in this area.

Note that this inspection finding is only for the area of remediation.

The owner has reported that the source of the moisture is being corrected.



1.1 Item 1(Picture)

(2)



1.1 Item 2(Picture)

This inspection was performed visually, and it was limited to visually accessible areas of the building at the time of the inspection. Mold or mold-like substances can be blocked from view and not found during inspection due to personal items or appliances and are out of view or not seen by the inspector. ***The inspector is limited to visual access and this inspection is not all inclusive.***

If "Visible Evidence Present" is noted, the building owner or buyer should be aware that this identification is not a determination of the amount or its significance. Whether visible or not visible but hidden, there is a possibility that more mold or growth could exist in unseen areas. Perhaps only discovered after the inspection when personal belongings are removed revealing mold, or during remodeling, or further investigative inspections that may involve more sampling or dismantling and removal of building components.

Note: This is not a home inspection. This inspection will not contain the condition of any component even if the component or components are deteriorated, non-operational, dangerous, damaged or defective. This inspection is to attempt to visually identify a mold-like substance and to offer to send to the lab for testing. The decision for removal or remediation is at the sole discretion of the buyer and is not part of this inspection.

## II. METHODS AND PROCEDURES

### Items

#### 2.0 Instruments and Sampling

##### Comments:

##### **Description of Specialized Inspection Instruments:**

##### **Moisture Meter**

The presence of moisture on the surface of building materials or inside structural components is the primary factor in sustaining microbial growth, which may lead to exposure to microbial emissions of spores, mycotoxins and microbial Volatile Organic Compounds (mVOCs).

To avoid microbial growth, it is recommended that moisture content of structure wood products be below 15%. Other building and construction materials, such as drywall and plaster, should measure at or below the baseline reading(s) taken from dry or unaffected materials of similar composition. All elevated moisture findings are confirmed with two moisture meter instruments to avoid false negatives or positives. There are two types of moisture meters typically used in the microbial industry. Pin-type meters, which utilize the principle of electrical resistance. Pin-less meters use radio frequency signals to penetrate the material being tested. GPI moisture meters currently in use are: Protimeter (Pin-type) and General MMD5NP (Pin-less).

##### **Thermometer Hygrometer**

The U.S. Environmental Protection Agency states that mold growth can occur on surfaces whose temperature ranges between 40° and 100° F. Unfortunately, most molds grow very well at the same temperatures that humans prefer. Therefore, it is not feasible to control mold growth in our home environment through the control of temperature. Most molds requires the presence of considerable moisture for growth. Obviously, the word "considerable" is key here. The mycologists (fungi scientists) refer to "water activity" when describing the required conditions for mold growth. The various species of mold have different water activity requirements. A material's "water activity" is equivalent to the relative humidity of the air that would be in equilibrium with the material at that material moisture content. The vast majority of mold species require "water activity" levels that are equivalent to material equilibrium moisture contents corresponding to relative humidity of at least 70%. The EPA reports that some molds can grow at 60% relative humidity or above. Indoor relative humidity (RH) should be kept below 60 percent -- ideally between 30 percent and 50 percent, if possible. Low humidity may also discourage pests (such as cockroaches) and dust mites. We measures temperature and relative humidity with the digital RH thermometer hygrometer.

##### **Thermal Imaging**

The FLUKE Portable Infrared Thermal Imager Camera offers a noninvasive means of monitoring and diagnosing the condition of buildings. It provides immediate documentation of as-built or post restoration quality, post-casualty cause and origin data, plumbing and building envelope water leakage, post-flood and fire water-damaged material assessment, energy use inefficiency, and roofing. Extending human vision with electronic imaging is one of the most powerful techniques available to science and industry, particularly when it enables us to see light in the infrared, or IR portion of the spectrum.

##### **Sampling Methodology:**

##### **Microbial Accredited Laboratory**

Samples are collected and submitted to an independent accredited microbial laboratory: EMLab, EMSL, Mycometrics, Hayes, Assured Bio Technology and or Aerotech. Samples are typically delivered to the lab by the investigator or express mailed.

Since important health, remediation and financial decisions will be based on results of these analyses, it is vital that the laboratory analyzing the samples be proficient in producing high quality data. EMLab, EMSL, Mycometrics, Hayes, Assured Bio Technology, and Aerotech have the distinction of having an AIHA EMLAP accredited labs. The accreditation complies with International Standard ISO/IEC 17025, general requirements for the competence of testing and calibration laboratories. When a laboratory is accredited by AIHA, the

laboratory and its clients have the assurance that the laboratory has met defined standards for performance based on examination of a variety of criteria. When a laboratory is accredited by AIHA, it becomes part of an elite group of laboratories achieving and maintaining a high level of professional performance.

AIHA's EMLAP program is designed for laboratories specializing in analysis of microorganisms commonly detected in air, fluids and bulk samples, as part of IAQ investigations. The AIHA accreditation program is a rigorous, thorough and lengthy process involving all operations and personnel of the accredited site. The scope and program requirements for EMLAP accreditation include: Personnel Qualifications, Methods of Analysis, Quality Assurance, Laboratory Records, Standard Operating Procedures, Facilities, Site Visits & Participation in the EMPAT program.

### **Sampling and Analysis Methods**

#### **Direct Surface/Bulk**

Substrates suspected of microbial contamination should be sampled to identify sources of airborne contamination. When mold/microbial or suspected mold/microbial is visible, direct surface sampling is recommended. This sample method can help determine types of microbials that are present, however it is not a reliable measure of the quantity of mold/bacteria that may be present in the indoor environment. A swab or bulk cultured analysis of a direct sample is considered the best method of analysis. The cultured method may help resolve a specific microbial species identification problem. Cultured sampling can also provide information on: mold spore counts, fungal growth, bacterial, sewage, E. Coli/Coliform, Legionella, and yeast ID. Tape lift or swab direct samples are also useful for non-cultured analysis and provide for a quicker result turn around.

Direct sampling does not provide information about other mold/bacteria which are not directly on the sampled spot. Visible microbial contamination that is confirmed by direct surface sampling is evidence of indoor contamination (ACGIH), however it is not a confirmation of potential exposure levels.

#### **Inertial Impaction Air Quality Sampling**

With the absence of scientific fungi exposure limits in non-industrial settings, the traditional common accepted industry practice as supported by ACGIH, AIHA, and EPA guidelines, is to compare biodiversity of outside bioaerosol concentrations and species to inside concentrations and species. The species of fungi found indoor and outdoor air typically are similar if outdoor air is the primary source. If fungal concentrations indoors are consistently higher than those outside, then indoor sources are indicated. However, indoor problem fungal growth may also be present in situations where indoor concentrations of airborne fungi are equal to or lower than those outdoors, and interpretation of data depends on a knowledge of the kinds of fungi present in the two environments.

In buildings without mold problems, the qualitative diversity (types) of airborne fungi indoors and outdoors sampled should be similar. Conversely, the dominating presence of one or two kinds of fungi indoors and the absence of the same kind outdoors may indicate a moisture problem and degraded air quality. Levels of similar genera 10 times higher than the outside can indicate "significant" contamination of interior substrates. Further, the consistent presence of certain indicator fungi (that can be determined by non-viable, culture or DNA sampling) such as *Stachybotrys chartarum*, *Chaetomium*, *Aspergillus versicolor*, or various *Penicillium* species over and beyond background concentrations may indicate the occurrence of a moisture problem and a potential atypical exposure.

Air sampling alone is considered insufficient when the objective of a microbial IAQ survey is to determine the nature and extent of fungal growth and the implications. Air sampling of any kind cannot provide an estimate of mold exposure over an extended time period. Air sampling should be combined with other methods to properly evaluate an indoor space. Non-viable spore trap sampling is also considered inadequate to specifically characterize the air quality for fungi, since microscopic examination only allows for identification of a very few genera/species spores. As a result cultured or Quantitative Polymerase Chain Reaction sampling techniques may need to be added to better determine mold species. Nonetheless, spore trap sampling can be a useful tool and has advantages over culturable media, i.e. rapid turnaround time, and more reliable for non-culturable spores.

In wall air cavity air sampling is a controversial area of industrial hygiene practice, with some discouraging its use because of both false positives and false negatives being common. In wall testing can be useful to assist with the location of suspected hidden mold growth, when it is combined with other mold testing approaches.

Non-viable air samples are collected using a Model B520 Bioaerosol Sampling controlled flow sampling pump for bioaerosol sampling with Allergenco-D™ or Air-O-Cell™ cassette. The B520 pump is calibrated before and after each sample collection job with a mini-BUCKÔ Primary Flow Calibrator.

### **Quantitative Polymerase Chain Reaction**

Quantitative Polymerase Chain Reaction (QPCR) is cutting edge molecular technology that analyzes for the genetic material called deoxyribonucleic acid (DNA) that is found in every cell. DNA is unique for every individual organism. Using QPCR allows for the detection of fungi, bacteria and certain viruses by identifying the presence of their specific DNA in their genome. The development and utilization of real-time polymerase chain reaction (RTPCR) in detection and quantitation of fungi in the indoor environment has been made possible by a patented technology developed by the US Environmental Protection Agency (US-EPA).

QPCR can detect the presence of small quantities of organisms whether they are alive, dead or cannot be cultured. For these reasons, QPCR is a fast, accurate, sensitive and specific alternative analysis that has many advantages over traditional microbiological methods that involve microscopic direct examination or culturing.

### **Environmental Relative Moldiness Index (ERMI)**

The ERMI has been developed by EPA (Environmental Protection Agency) scientists for research using a sophisticated research DNA test method by which to compare and interpret fungal data at the molecular level. The ERMI was developed by EPA scientists as a screening tool for the evaluate potential risk of an indoor mold growth problem. Using ERMI protocols, targeted mold species can be quantified bio-chemically. Mold species are divided into two groups by the ERMI. The first group of 26 indicator species represents molds associated with water damage, while the second group represents common indoor molds. The ERMI report includes the detection and concentrations of 36 specific mold species along with the combined ERMI value itself. The overall ERMI measurement provides a rank of the “moldiness” to compare the results to a national scale, based on a national HUD survey of 1,096 homes. An ERMI score is also used in conjunction with individual mold species quantifications to determine mold conditions. More recent research also considers the value of “group two” molds as an indicator of problem mold conditions. The preferred method collects dust from a measured floor area with a dust sample collection kit. The dust sample will contain not only mold spores (like previous traditional test methods) but also mold particles (which also cause negative health symptoms) that have settled out of the air onto carpet, floor or surfaces. The dust is then analyzed in the laboratory using a DNA-based technology called mold-specific quantitative polymerase chain reaction, or MSQPCR. The results of the test provide a scientifically derived value between about –10 to 20 that are compared to the national ERMI scale to determine the relative moldiness and average mold species levels of the sampled home or business. The ERMI is not meant as an instantaneous measure of moldiness, but a long-term history of the mold growth in the particular indoor environment.

ERMI values have now been correlated with laboratory assays and negative health symptoms. Further, it has been reported that after medical treatment, and re-occupation of the home provided the post-remediation ERMI score is below an accepted value of –1.0 or 2.0 (depending on the occupants antigen blood test measurements), treatment benefit has been reported as maintained by medical researchers.

# III. LIMITATIONS AND CODE OF ETHICS

*Items*

## 3.0 Limitations and Code of Ethics

Comments:

### **Best Practice and Limitations**

This report is designed to provide guidance as to the inspected and or sampled location(s) having a suspected microbial and or indoor air quality problem as well as further actions that should be considered to develop specific testing or remediation specifications. Guaranteed Property Inspection and Mold Investigation, Inc. (GPI) is not responsible to identify or find hidden moisture damage, air quality, microbials or other hazards, which are not readily visible, or identified by third party laboratory results. If hidden moisture, microbials or other indoor air quality problems are found, the client should retain GPI to further investigate. This report should be submitted for further recommendations from a certified IICRC, ACAC, or a qualified indoor environmental state licensed consultant i.e. asbestos, VOC's, radon, and or lead. Individuals with health problems should see their physicians for a referral to practitioners who are trained in environmental medicine or related specialties and are knowledgeable about these types of exposures.

GPI follows protocols based on the appropriate Standards of Practice and guidelines for investigation, sample collection and the assessment of indoor environments for microbial contamination, and air quality problems of the: American Conference of Governmental Industrial Hygienists (ACGIH), American Industrial Hygiene Association (AIHA), American Council for Accredited Certification (ACAC), New York City Health Department (NYC), California Department of Health, Environmental Protection Agency (EPA), Asbestos Hazard Emergency Response Act (AHERA), IICRC, American Society of Home Inspectors (ASHI) and the California Real Estate Inspectors Association (CREIA).

This report applies only to those areas of investigation and or sample collection approved, as well as directed by the client and taken at the time, place and location referenced by this report. Sample recommended protocols by GPI are often limited by client directives based on a goal to reduce costs. Limited investigation and sampling as directed by the client may result in partial information for findings and written remediation specifications. If the client has limited recommended tests or areas of investigation, the client understands that other consulting professionals may request additional testing and inspection information to provide further recommendations. Interpretation of these parameters is a scientific work in progress and may as such be changed at any time without notice. As such, this report is unique for the property identified and should be considered a living document. GPI reserves the right to modify its contents as needed to reflect new industry science or site findings. GPI makes no express or implied warranties or guarantee as to such use or interpretation, or sole reliance on this report and as to the testing methodology used. The client is solely responsible for the use of these tests and report results.

Reports are generated by GPI at the request of, and for the exclusive use of, the person or entity (client) named on this report, further it is assumed that the correction of the underlying cause of air quality or microbial contamination is the responsibility of the client or property owner and not GPI. Reliance on or use of this copyrighted© report by anyone other than the client, for whom it was prepared, is prohibited. No part of this document may be reproduced without the permission of the author, GPI, Irvine, CA 92603. No responsibility is assumed by the author for any injury and or damage to persons or property as a matter of products liability, negligence or otherwise, or from any use or operations of any methods, products, instructions or ideas contained in the material herein. Reports or copies of this report will not be released or discussed by GPI without the prior expressed written contractual consent from the client named in this report. This report is the intellectual property of GPI; that is unique to each report and is a copyrighted document. Reliance or use by any third party, does not make said third party a third party beneficiary to GPI's contract with the client. For the same reasons, no warranties or representations, expressed or implied in this report, are made to any such third party. Any approved consultations with client-authorized individuals will be charged \$350 per hour. If recommended in this report, the testing, removal and cleaning of contaminated or hazardous materials should be undertaken only by properly certified and qualified professionals with adequate precautions, since disturbance of contaminated materials can impact the health of remediation workers and occupants.

GPI has applied best practice standards of practice to perform this analysis report, but this evaluation may have been limited in scope to the areas of investigation and testing by client directive. Applicability, limitations and exclusions include but are not limited to:

1.1 The inspection is a non-invasive visual survey of the structure.

a. The inspection is limited to visible areas that are deemed by the inspector as easily accessible, and does not pose a physical hazard or damage/alter the structure or its contents, including but not limited to, attic space, crawl space, or roof access.

b. Inspector does not move or alter any contents of the structure to gain access for inspection.

c. Inspector does not operate or adjust any fixture or valve.

1.2 The results and recommendations made by the inspector relative to this standard are limited to ruling out significant sources of contamination.

1.3 Identification of suspect areas is not intended to be a health risk assessment for the occupants, clients are advised to seek further information from their medical professional.

1.4 It is not intended that the full scope and or cost of remedial action is to be fully based on the results and recommendations made by this inspector relative to this standard.

1.5 The inspector does not maintain a business relationship with any moisture or mold remediation companies or repair contractors.

1.6 The results and recommendations made by the inspector relative to this standard are applicable only to the area(s) inspected by client directive.

1.7 Inspections performed rely upon the opinion, judgment and experience of the inspector, and are not intended to be technically exhaustive.

1.8 Sample collections shall not be construed as a compliance sample collection of any code, governmental protocol, or regulation. In the event a law, statute, or ordinance prohibits a procedure recommended, the inspector is relieved of the obligation to adhere to the prohibited part of the standard.

1.9 Findings in this report are limited to the date, time, and area of investigation.

2.0 No warranties are made with respect to the contents of this report. GPI cannot guarantee that individuals and environments will be free of hazards exposure. Due to the nature of air quality hazards, contaminants can be hidden and unknown in areas of this property even with exhaustive inspection and testing efforts; GPI cannot be held responsible if the client, remediation personnel, other inspectors, dogs (or other non-scientific approaches), current or future property owners discover such areas.

### **American Council for Accredited Certification (ACAC)**

#### Code of Conduct:

Preamble: The American Council for Accredited Certification (ACAC) is a professional association that serves as a certifying body for those in the multi-disciplinary field of indoor air quality. The Board of Directors has adopted, and commends to its certificants, the following code of conduct.

Objective: The objective of this code is to provide standards of appropriate conduct for the certificants of the American Council for Accredited Certification as they engage in their individual professions, seeking to ensure the protection of individuals and their property from IAQ concerns.

Rules of Conduct: Certificants of the American Council for Accredited Certification shall:

Practice their respective professions following accepted Indoor Air Quality standards and guidelines.

Exercise caution not to misrepresent their credentials, training or experience when performing Indoor Air Quality services.

Deal responsibly in advising parties regarding potential damage to property and/or risk to health.

Maintain confidentiality concerning both personal and business information gathered in the performance of their professions, except in the case of overriding legal and/or health concerns.

Avoid instances where potential conflict of interest or compromise of professional judgment may occur.

Act with integrity to uphold the standards of their profession and of the Council and avoid any conduct that could adversely reflect on the Council and its certificants.

#### ACAC Certification:

Founded in 1993, The American Council for Accredited Certification (ACAC) is North America's oldest and most prestigious certifying body dedicated to indoor air quality. ACAC offers consulting and remediation certifications in infection control, microbial, indoor environmental and other Indoor Air Quality (IAQ)-related fields.

ACAC is the only certifying body in the IAQ field to achieve independent third-party accreditation from the Council of Engineering and Scientific Specialty Boards (CESB).

#### Certification Process:

Candidates for an accredited ACAC certification must demonstrate a combination of college-level science education and verifiable field experience on a written application before taking the certification exam. ACAC staff members verify field experience documentation for every candidate. Certification boards develop each certification exam from standard industry reference texts, never from training course curricula. ACAC exams are developed and maintained according to accreditation guidelines published by the National Commission of Certifying Agencies (NCCA) and delivered at third-party proctoring centers around the world. ACAC certification boards set passing scores for each exam using psychometrically verified statistical analysis. In an average year, only about 70% of eligible candidates pass their ACAC certification exam. Candidates who pass their exams must await board review of their application files. ACAC certification boards are composed of no less than five (5) members, each of whom holds the certification in question. Board members may not be affiliated with those who provide prep courses for ACAC exams. Boards meet and discuss each application file and certify by unanimous vote only. ACAC certifications are current for two years, after which time recertification is required. Certificants must document and attest to 40 hours of professional development activities during each two-year certification cycle.

#### Integrity and Independence:

The Federal government specifies ACAC certifications for mold workers in its Unified Facilities Guide Specifications. ACAC exams are verified as psychometrically sound and independent from training courses. The American Lung Association recommends ACAC certification throughout its "Standard of Care for the New Hampshire Mold Industry: A Guide for Citizens Affected by Mold and Moisture in New Hampshire Buildings." The New York State Toxic Mold Task Force recognized ACAC certifications in its 2010 report to the New York state legislature. For more information about the integrity, credibility and independence of ACAC certification programs, visit the ACAC website at [www.acac.org](http://www.acac.org).



**Guaranteed  
Property  
Inspections**

**INVOICE**

**Guaranteed Property Inspection & Mold  
Investigations Inc.  
www.gpinspect.com  
888.252.2274  
Inspected By: Steve Zivolich, MA, CMC, ACI**

**Inspection Date: 11/28/2015  
Report ID: roberts112815**

<b>Customer Info:</b>	<b>Inspection Property:</b>
Mary Smith  <b>Customer's Real Estate Professional:</b>	123 Street Any Town CA

**Inspection Fee:**

<b>Service</b>	<b>Price</b>	<b>Amount</b>	<b>Sub-Total</b>
BASE FEE	495.00	1	495.00
			<b>Tax \$0.00</b>
			<b>Total Price \$495.00</b>

**Payment Method:**  
**Payment Status:** Paid At Time Of Inspection  
**Note:**



**Guaranteed  
Property  
Inspections**

## **Guaranteed Property Inspection & Mold Investigations Inc.**

**Steve Zivolich, MA, CMC, ACI**

**www.gpinspect.com  
888.252.2274**

