THE MOLD ASSESSMENT QUICK CARD: INSPECTION SWEEP & SAMPLING SPINE

The complete professional pre-remediation assessment on one card: systematic visual inspection sweep order, moisture/thermal indicators, minimum 4-sample air protocol, and sampling method selector.

1. The Assessment Team: Independence Rule

S520 STANDARD OF CARE

Structural Independence Mandate: The assessor must be completely independent from the remediation contractor on the same project. Codified in state law in **Texas, Florida, and Louisiana**; standard of care nationally.

- **Conflict of Interest:** Assessor profiting from a larger remediation scope invalidates technical objectivity and adjuster defensibility.
- **Qualified Assessors:** Licensed Industrial Hygienists (CIH/IH via AIHA), Certified Indoor Environmental Consultants (CIEC via IAQA), state-licensed mold assessors. Must carry Errors & Omissions (E&O) liability insurance.
- **Contractor Role:** Provide access, facilitate physical investigation, and receive findings. Contractors must never direct, expand, or minimize scope.

2. Visual Inspection Walkthrough Sweep Order

SYSTEMATIC SWEEP

Sampling without visual inspection is data without context. Inspect all accessible areas in strict order:

Area / Order	Inspection Focus & Physical Indicators
1. Living Areas	Perimeter baseboards, drywall seams, ceiling transitions, window framing, supply registers, carpet tack strips.
2. Crawl Space	Subfloor framing, sill plates, vapor barrier integrity, standing water, foundation vents, plumbing penetrations.
3. Attic	Roof decking, rafters, soffit/ridge baffles, bathroom exhaust duct terminations, HVAC air handler leaks.
4. HVAC System	Supply/return duct sections, filter condition, coil cleanliness, condensate pan standing water, blower cabinet.
5. Wet Core / Under-Sink	Under-sink vanities, behind dishwashers/refrigerators/washing machines, supply-line escutcheons, p-traps.
6. Basement / Foundation	Cinderblock/poured concrete, cold joints, sump pits, efflorescence, wall framing bottom plates.
7. Historical Intrusion	Any zone with documented roof leak, plumbing overflow, storm surge, or prior mitigation history.

3. Moisture & Physical Intrusion Markers

CAVITY VERIFICATION

- **Dual Metering:** Pinless meters for rapid screening; pin-type meters for deep cavity framing readings. Thermal imaging identifies thermal anomalies/evaporative cooling.
- **Hidden Cavities:** Mold frequently amplifies on back-face drywall paper and cavity framing before appearing on room surfaces.
- **Intrusion Clues:** Staining, efflorescence (mineral salts), rust streaking on fasteners, wood discoloration, and paint bubbling/delamination.

4. Minimum Sampling Plan (Baseline: 4 Samples)

DOCUMENTED PROTOCOL

A sampling protocol must be documented in writing *before* sampling begins and never altered based on preliminary field observations.

Sample Type	Location & Technical Purpose
1. Outdoor Control	Simultaneous outdoor air (same weather, same wind, same equipment, same run time, same analysis). Mandatory comparison baseline.
2. HVAC Return	Central HVAC return grille (establishes mechanical air circulation and spore distribution across zones).
3. Suspected Zone	Area of suspected moisture intrusion / visible damage (quantifies amplification & establishes pre-remediation clearance baseline).
4. Unaffected Area	Second indoor reference in clean, dry zone on separate air path (validates normal building background).

Add-On Zones: Add +1 sample for each distinct amplification zone and any space in the remediation scope. Residential thorough assessment: 3–6 indoor samples + 1 outdoor control.

5. Air Sampling Methodology Selector

HEADLINE LEVEL

Method	Parameters & Turnaround	Best Use / Limitations
Spore Trap (Non-Viable)	**Flow:** 75 L/min × 10 min = **750 L** total volume. **Turnaround:** 24–72 hours. **Cost:** $25–$60/cassette analyzed. **Mag:** 400–1000x.	**Primary choice for property damage & claims.** Fast, economical. *Limitation:* Cannot distinguish viable vs non-viable; Pen/Asp grouped as type; clustering under-counts.
Viable Culture (Andersen/RCS)	Impaction onto culture media plates. **Turnaround:** 5–14 days. **Output:** Colony-forming units (CFU/m^3).	Species-level mycological identification; health-sensitive/litigation cases. *Limitation:* Misses non-viable spores; requires cold-chain shipping.
Targeted MSQPCR (DNA-based)	Molecular DNA quantification. Highly sensitive & specific. Detects non-sporulating taxa.	Targets elusive species (e.g., *Stachybotrys* under dry conditions). *Note:* Standard ERMI dust scores not appropriate for insurance claims.

6. Outdoor Control Rule of Match

DEFENSIBILITY GATE

Indoor air samples compared to historical databases rather than a simultaneous outdoor control are methodologically invalid and will be excluded in claims disputes. The outdoor sample **MUST** match: (1) identical collection pump/cassette, (2) identical 750 L run time, (3) identical laboratory, and (4) simultaneous meteorological conditions.

RESTORATION INTEL • FIELD OPERATIONS QUICK CARD

Surface Sampling, Lab Report Interpretation & Adjuster Documentation Package

Current version — Nov 2, 2026
Update history: restorationintel.com/mold-assessment-testing-air-sampling-surface-sampling/

SURFACE TECHNIQUES, QUANTITY INTERPRETATION & CARRIER SUBMISSION

Rules for tape lifts, bulks, swabs, comparative ratio analysis, water-indicator detection, causation chain mapping, and pre-existing condition segregation.

7. Surface Sampling Technique Selector

GROWTH CONFIRMATION

Answers: "*Is this visible growth actually mold, and what kind?*" Confirms growth on scope materials.

Method	Protocol, Handling & Turnaround	Primary Use-Case
Tape Lift	Transparent sampling tape pressed to surface, peeled, mounted on glass slide. 400x microscopic analysis. **Turnaround: 24–48 hrs.**	Most common for accessible, dry surfaces. Fast, non-destructive. Identifies spore morphology and hyphae.
Bulk Sample	Physical segment of material (drywall, wood, carpet, insulation) sealed in sterile container. Lab microscopic + culture analysis.	Contamination within material thickness; species verification; physical evidence chain of custody.
Swab Sample	Sterile swab rolled across defined area (typically **4–25 cm^2**). Sterile transport tube. Culture or direct microscopic read.	Irregular, wet, or textured surfaces where tape adhesive fails; viable colony quantification.

8. Lab Report Interpretation: What Numbers Mean

CONTEXTUAL COMPARISON

No Regulatory Action Levels: EPA, OSHA, and ANSI/IICRC S520 do not define numerical spore thresholds. Interpretation is 100% comparative against the outdoor control.

Amplification Metric	Threshold & Technical Interpretation
Total Count Ratio	Indoor total count exceeding outdoor control by **1.5–2:1** indicates active indoor fungal amplification.
Water Indicators	Detection of *Stachybotrys chartarum*, *Chaetomium*, or *Ulocladium* at **any measurable count** indicates wet cellulosic materials (rarely found outdoors).
Pen/Asp Dominance	Indoor concentration of Penicillium/Aspergillus-type significantly exceeding outdoor background indicates active building contamination.
Single-Species Dominance	One fungal type representing **>50%** of total indoor count without outdoor match indicates immediate localized amplification source.

Physical Clues: *Aspergillus versicolor* → insulation/gypsum; *Cladosporium* → condensation; *Penicillium* → saturated wood/paper.

9. Laboratory Accreditation & Chain of Custody

QUALITY SYSTEMS

- **AIHA EMLAP Standard:** Environmental Microbiology Laboratory Accreditation Program (EMLAP) is mandatory for data defensibility.
- **COC Mandatory Fields:** Sample ID, collection date/time/location, collector name & credentials, method, requested analysis, lab receipt signature/timestamp, analyst name.
- **Zero Breaks:** An unsealed cassette or missing transfer signature invalidates the entire assessment dataset in insurance and legal proceedings.

10. Adjuster-Defensible Documentation Package

THREE CORE ELEMENTS

To defend an S520 mold scope and carrier claim, your file must substantiate three pillars:

Pillar	Required Field Evidence & Standard of Proof
1. Contamination Presence	ANSI/IICRC S520 Condition Classification (Condition 1 normal, Condition 2 settled spores, Condition 3 actual growth). Sampling data, lab report, photo log.
2. Covered Event Causation	Physical migration path documented from covered water event to mold growth. Mitigation drying logs showing failure to dry or delay.
3. Scope Support	Line-by-line alignment: every containment barrier, HEPA air scrubber, and material removal item must map to an IH finding.

11. Causation Chain & Pre-Existing Segregation

COVERAGE DEFENSE

Carriers aggressively assert pre-existing mold or maintenance neglect to exclude coverage. Segregate growth using physical morphology:

Growth Type	Physical Characteristics & Claim Strategy
Fresh Growth (Loss-Related)	White or light green color, superficial, no heavy powdering, on recently wetted substrate. Supported by water mitigation moisture map and recent loss timeline. Fully defensible.
Established Growth (Pre-Existing)	Dark, heavily powdery, multi-species layering, structural wood rot, multiple historical drying rings. Document separately; segregate from covered scope to prevent claim denial.

IH Recommendations Authority: Assessor-recommended remediation scope carries independent third-party weight that adjusters cannot summarily strike.

12. Photo Documentation Scale & Metadata Rules

VISUAL PROOF

- **Scale Reference:** Every photo of visible mold or moisture damage must include a physical scale reference (measuring tape, scale card).
- **Context Progression:** Wide-angle orientation (room context) → medium area shot → close-up macro of fungal growth/damage.
- **HVAC Visual Proof:** Dedicated photos of filter condition, duct interior, condensate pan water level, and evaporator coil cleanliness.
- **Metadata Lock:** Native camera timestamps and GPS coordinates preserved; match photo numbers directly to field moisture log IDs.