

# CDScan™

## An innovative, sensitive air quality test for measuring the presence of contaminated Chinese drywall

CDScan™, the latest innovation from Prism Analytical Technologies, is used to determine if contaminated drywall (sometimes referred to as Chinese drywall) could be present in your home. The defective drywall is a result of contaminated gypsum used in the manufacturing process. Contamination problems are usually noticed as an unpleasant sulfur smell in the home, metals turning black, and adverse health effects such as respiratory irritation, eye irritation, and headaches.

This two-part test measures for airborne chemical markers and corrosion markers that suggest there is a problem in the home. Together, these sets of markers are able to provide a higher level of certainty that contaminated drywall is in the home compared to single test kits.



*CDScan™ measures very low levels of airborne contaminants from contaminated drywall before they become an issue.*

### Why test your home with CDScan™?

- ▼ Homes built or remodeled since 2004 may contain this drywall
- ▼ Living with contaminated drywall will cause damage to the home and potentially to your health
- ▼ CDScan measures very low levels of airborne contaminants from contaminated drywall before they become an issue
- ▼ No requirement to poke holes in the walls or remove cover plates from electrical outlets
- ▼ Confirmatory initial copper coil damage can be observed by measuring the actual corrosion using our SEM-EDS (Scanning Electron Microscopy-Energy Dispersive Spectroscopy) method

# CDScan™ vs. Do-It-Yourself Home Kits

CDScan is different from do-it-yourself (DIY) tests because it measures for very minute levels of airborne contaminants (low parts per billion) that cannot be detected using a DIY kit that requires much higher concentrations in order to be discovered. Secondly, CDScan has a confirmatory test that measures the source of corrosion on the exposed copper to determine if sulfur is reacting with your copper refrigeration or air conditioning coils.

Prism recommends that a trained Environmental Consultant, Indoor Air Quality Professional, or home inspector perform the CDScan test. This procedure ensures that materials are sampled and preserved correctly the first time. If the home is found to have a high probability for the presence of contaminated drywall, Prism recommends the homeowner contact their building contractor or homeowners' association and request a redress of the situation.

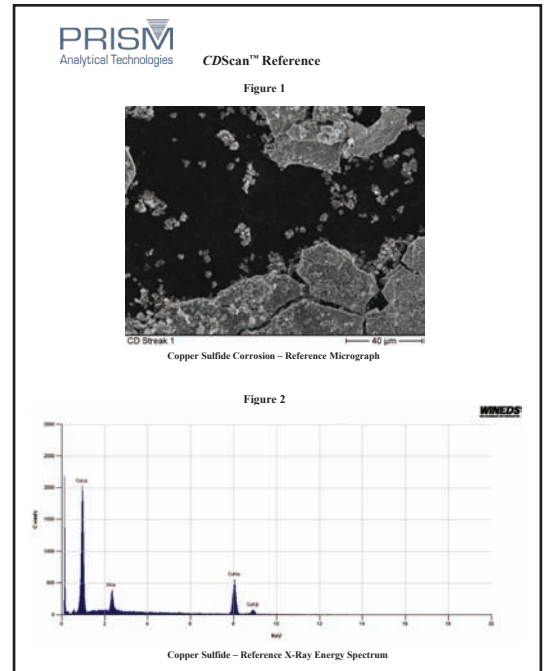


Figure above is a picture from the SEM. Sample shows significant sulfur corrosion on an HVAC coil. Figure below shows a sample analytical report, with prediction of contaminated drywall in the home.

## The CDScan™ Test

- ▼ **2 samples collected**
  - Air sample monitors for COS (Carbonyl Sulfide) and CS<sub>2</sub> (Carbon Disulfide)
  - Sample from HVAC coils monitors for sulfur-corroded copper
- ▼ **~ 3.5 hours needed to collect samples**
- ▼ **Within a few days, homeowner receives 2 reports:**
  - Prediction of likelihood of contaminated drywall in the home
  - Summary of chemical and SEM-EDS analyses

**PRISM**  
Analytical Technologies

**Sample Analytical Report**

C.O.C. No.: 23001  
Order Date: 11/30/2009  
11/30/2009  
Sampled By: S. Mack

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Client: ABC Company  
123 Elm Street Falls  
Project: Live Oaks Condominiums  
Location: Anywhere USA

Client Sample ID: D-2 Master Bed Room  
Laboratory ID: 23001.3  
Date Sampled: 11/19/2009  
Date Analyzed: 11/26 Volume: (L)38.6

For questions concerning this report, call Prism at 989-772-5088 or send an email to: prism@pati-air.com. Be sure to reference the C.O.C. Number above.

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### Contaminated Drywall - CDScan™

Contamination Probability

Contaminated Drywall Probability	5	The probability that contaminated drywall is present is determined using the amount of sulfur corrosion on the HVAC coils together with the carbonyl sulfide and carbon disulfide concentrations from the air sample. See definition of Probability Level below.
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Probability Value	Probability Level	Explanation
1	Minimal	No evidence of sulfur corrosion was seen on the copper, neither of the corrosive gases were present above normal levels.
2	Low	No evidence of sulfur corrosion was seen on the copper; however, one or both of the corrosive gases were present above normal levels.
3	Moderate	Either a slight, but noticeable level of sulfur corrosion was seen on the copper or no sulfur corrosion was noted on the copper but both of the corrosive gases were present above normal levels.
4	High	A significant level of sulfur corrosion was seen on the copper; the corrosion exhibited characteristic flake formation; one or both of the corrosive gases were present above normal levels.
5	Very High	Sulfur corrosion on the copper was heavy and some scaling may have been observed; the corrosion exhibited characteristic flake formation; one or both of the corrosive gases were present above normal levels.

Prism Analytical Technologies, Inc.  
1200 N. Fancher  
Mt. Pleasant, MI 48858

Tel: 989-772-5088 / Email: prism@pati-air.com

[www.pati-air.com](http://www.pati-air.com)

**PRISM**  
Analytical Technologies  
The Consultative Air Testing Laboratory