

# Morris & Associates

Architects, Environmental Consultants



May 3, 2022

Mr. Tanner McKnight  
East Arkansas Community College  
1700 Newcastle Road,  
Forrest City, AR 72335

**RE: INDOOR AIR QUALITY INSPECTION OF  
EACC PRESIDENTS HOUSE  
M & A PROJECT #3315-22**

Dear Mr. McKnight:

On April 8, 2022 Craig Tolleson, IH performed indoor air quality inspection of the President's house located at 1326 E. Broadway, Forrest City. There are areas of visible mold growth on the ceiling of the master bathroom. There are also two areas of visible mold growth on the walls in the stairwell leading up to the attic. Temperature and humidity readings were collected and were all within normal ranges at time of the investigation.

During the investigation I walked through the building with Tanner McKnight with EACC. 1. The master bathroom is the first area we inspected. I feel the mold growth is caused from moisture coming from the shower. Upon further investigation in the attic area above the master bathroom the insulation has been moved and allowing the ceiling to become cooler than other areas. 2. The mold growth areas in the stairwell to the attic are associated with the duct work that runs in the wall behind the plaster. This area is shown on the thermal image in this report. Additional insulation should be added to duct work to stop the thermal transfer through the wall. When the HVAC is in cooling mode the wall is cooled and exposed to non-conditioned air in the attic. This is allowing moisture and mold to grow on the surface of the wall. The areas of mold growth were detected by visual inspection and with the use of Thermal Imaging and Bore Scope cameras. We also did an inspection of the two HVAC units in the basement area. Only one unit was running at the time of the inspection. A HVAC technician should inspect these units to insure they are operating properly. The basement dryer vent is being exhausted to the mechanical room of the basement. This is allowing warm moist air to be introduced into the basement and HVAC units. This needs to be routed to the outside of the building. 3.

Two spore trap samples had been collected inside the building. One sample was collected in the master bathroom and revealed mold count 1392 cnts/m<sup>3</sup> in normal ranges with the predominate mold Cladosporium, which is very common and seldom causes adverse health effects. The sample collected in the basement revealed mold counts of 78,864 cnts/m<sup>3</sup> that included Penicillium/Aspergillus. This spore type needs to be eliminated or greatly reduced.

During the inspection I also collected samples of the paper insulation from the exterior of the ductwork. The samples were analyzed for presents of asbestos. The samples revealed 50% chrysotile asbestos. The material should only be removed by certified personnel. 4.

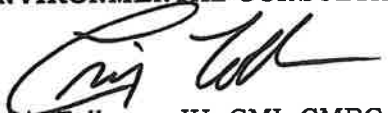
5.  
It is my recommendation that a remediation be performed to remove the visible mold growth and clean the basement area. This work should be performed by a properly trained remediation contractor. Additional air testing should be performed once the remediation is complete.

If you would like us to prepare remediation protocol just let us know.

Please feel free to call if you need any additional information.

Sincerely.

**MORRIS & ASSOCIATES, ARCHITECTS**  
**ENVIRONMENTAL CONSULTANTS**



Craig Tolleson, IH, CMI, CMRC



## IAQ Field Readings

**Project:** EACC Forrest City, President's House  
**Weather Conditions:** Sunny & Cool  
**Sheet 1 of 1**

**Date:** 4/8/22 **Time:** 1:50 PM  
**Inspector:** Craig Tolleson

Reading#	Location	Temp	RH	CO2	CO
1	Master Bath	68.7°F	50.1%	375	
<b>Comments:</b>					
<b>Samples Collected:</b> 01AC					
Reading#	Location	Temp	RH	CO2	CO
2	Attic	69.7°F	56.1%	175	
<b>Comments:</b>					
<b>Samples Collected:</b>					
Reading#	Location	Temp	RH	CO2	CO
3	1 <sup>st</sup> Floor Foyer	70.3°	53.3%	315	
<b>Comments:</b>					
<b>Samples Collected:</b>					
Reading#	Location	Temp	RH	CO2	CO
4	Basement	67.9°	52.7%	412	
<b>Comments:</b>					
<b>Samples Collected:</b> 02AC					
Reading#	Location	Temp	RH	CO2	CO
5	Outside	64.7°	49.7%	115	
<b>Comments:</b>					
<b>Samples Collected:</b> 03AC					
Reading#	Location	Temp	RH	CO2	CO
<b>Comments:</b>					
<b>Samples Collected:</b>					
Reading#	Location	Temp	RH	CO2	CO
<b>Comments:</b>					
<b>Samples Collected:</b>					
Reading#	Location	Temp	RH	CO2	CO
<b>Comments:</b>					
<b>Samples Collected:</b>					
Reading#	Location	Temp	RH	CO2	CO
<b>Comments:</b>					
<b>Samples Collected:</b>					

**Crisp Analytical Labs, L.L.C. / C.A. Labs, L.L.C.**

Client: Morris & Associates  
Address: P.O. Box 242, 5005 Hwy 161  
Scott, AR 72142  
Liz Ketcherside  
Attn:  
Allergenic Particle Report  
CA Lab Project #: CAL22043493AG  
Project name: 3315-22, East Arkansas Community College President's House  
Analysis: Light Microscopy Identification of pollen/fungal spore (ASTM 7391-09)  
Sample media : Air-o-cell / Cyclex D (airborne)  
Date: 4/14/2022

[illegible]

NAME	DATE	TIME	UNIT	UNIT NO.
Crisp Analytical Labs, LLC	1929 Old Denton Rd.	Carrollton, TX	75006	

**Tanner Rasmussen - Lab Supervisor**

Page 1 of 2

## INDOOR AIR QUALITY ALLERGENIC PARTICLE LABORATORY ANALYSIS REPORT

### Morris & Associates

P.O. Box 242, 5005 Hwy 161  
Scott, AR 72142  
phone: 501-961-1003

Reference Number: CAL22043493AG  
Turnaround Time: 2 days  
PO #:

Date Analyzed: 4/13/2022  
Date Received: 4/13/22 10:30AM  
Date Sampled: 4/8/2022

### Analytical Method:

The categorization and quantification methodology for airborne fungal structures presented in ASTM D7391-09 has been utilized for the enclosed analyses. Per the requirements of the methodology, as applied to linear slit impactors, greater than 20% of the trace (36.67%; 16 traverses) has been analyzed with all spore category enumeration conducted at 600x magnification (magnification/resolution 2). Under these counting conditions minimum reporting limits for all spore categories are as follows:

<u>Volume:</u>	<u>Minimum Reporting Limit:</u>
75 L	48 fs/m <sup>3</sup>
150 L	24 fs/m <sup>3</sup>

### Bias:

Bias is present in all types of spore trap cassettes by particle size, capture, spread and counting procedure used. In particular, samples with a particulate/debris rating of 2-4 are subject to negative bias due to spores being obscured by other particles. Particulate/debris ratings of 5 will result in a sample being reported as "Overloaded."

### Note:

This test report relates only to items tested. These results are submitted pursuant to CA Labs' current terms and condition of sale, including the company's standard warranty and limitation of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. If there are concerns about health aspects of known allergens, consult a physician. Pollen and spore types identified are all naturally occurring and may grow anywhere in a natural environment where water is present. While it is normal for fungi to be present inside buildings from outside sources, growth occurs in humid conditions. Fungi cannot spread from building to building, as it is always present, but may not be growing. To control allergens in an area, drying and use of HEPA filters are recommended. Quantification is susceptible to a standard deviation of 100%, dependent on loading. Unless notified in writing to return samples covered by this report, CA Labs will store the samples for thirty (30) days before discarding. A shipping and handling fee may be assessed for the return of any samples. This method is not covered by the scope of NVLAP or AIHA LAP, LLC accreditations, and the report does not imply endorsement by any government agency. This report may not be reproduced except in full, without written permission from CA Labs.

Analysis performed at Crisp Analytical Labs 1923 Old Denton Rd. Carrollton, TX. 75006. Phone (972) 242-2754 Fax (972) 242-2798: TDSHS mold analysis #LAB1038  
This report is intended for the recipient, only. Please notify us if you have received this document in error. (We will advise you to destroy or return this document.)

# IAQ CHAIN OF CUSTODY FORM

04C22043493



Morris AE, Inc.  
Architects & Environmental Consultants  
PO Box 242, 5005 Hwy. 161  
Scott, AR 72142  
(501) 961-1003 phone  
admin@morrisae.com

Laboratory: Crisp

Project Name: EAST ARKANSAS COMMUNITY COLLEGE  
PRESIDENTS HOUSE / 1326 E. BROADWAY

Morris AE# 3315-22  
Date Sampled: 4-8-22

#1 - Culturable Fungi, Air #3 - Culturable Fungi, Bulk/Wipe #5 - Fungal ID - Tape #7 - Other  
#2 - Culturable Bacteria, Air #4 - Culturable Bacteria, Bulk/Wipe #6 - Total Fungal Spore Counts, Air

Sample #	Sample Type: air, wipe, bulk dust, water	Air Vol. (L)	Sample Location	Analysis Requested	Comments
1326-040822-01AL	AIR	150	2nd Floor Master Bath	6	15 LPM / 10 min
1326-040822-02AL	AIR	150	Basement	6	Y
1326-040822-03AL	AIR	150	OUTSIDE OF BLDG.	6	↓
					10:30AM
					APR 13 2022
					<i>[Signature]</i>

Submitted by: (sign) *[Signature]* (print) Craig Tolloson Date Submitted: 4-11-22  
Received by: (sign) *[Signature]* (print) 10:30AM Date & Time Received: \_\_\_\_\_  
(For lab use only) Samples processed by: *[Signature]* Date: APR 13 2022 Turnaround Requested: 48HR

**CA Labs**  
Dedicated to Quality

**Crisp Analytical, L.L.C.**  
1929 Old Denton Road  
Carrollton, TX 75006  
Phone 972-242-2754  
Fax 972-242-2798

**CA Labs, L.L.C.**  
12232 Industripark, Suite 32  
Baton Rouge, LA 70809  
Phone 225-751-5632  
Fax 225-751-5634

## Polarized Light Asbestiform Materials Characterization

**Customer Info:**

**Morris & Associates**

P.O. Box 242, 5005 Hwy 161  
Scott, AR 72142

Attn: Liz Ketcherside

**Customer Project:**

1326 E. Broadway, 3315-22

Turnaround Time:

24 hours

**CA Labs Project #:**

CAL22043482DH

Date: 4/14/2022

Samples Rec'd: 4/13/22 10:30 AM

Date Of Sampling: 4/8/2022

Purchase Order #:

Phone #

501-961-1003

Fax #

Laboratory Sample ID	Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homo-geneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
32257	1326-040822-M001		1326-040822-M001	Paper Insulation/ off-white layered insulation	y	50% Chrysotile		50% qu,ca,ma
32258	1326-040822-M002		1326-040822-M002	Paper Insulation/ off-white layered insulation	y	50% Chrysotile		50% qu,ca,ma

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

**AIHA LAP, LLC Laboratory #102929**

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted.

Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion staining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gy - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bl - binder	ot - other	wo - wollastonite	ka - kaolin (clay)
or - organic	pe - perillite	la - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

*William Bond*

William Bond  
Analyst

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damage affecting fibrous percentages
3. Asbestos in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze

*C.T. Rasmussen*

Technical Manager  
Tanner Rasmussen

Senior Analyst  
Julio Robles

6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested





**CA Labs**  
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**Crisp Analytical, L.L.C.**  
1929 Old Denton Road  
Carrollton, TX 75006  
Phone 972-242-2754  
Fax 972-242-2798



**CA Labs, L.L.C.**  
12232 Industripark, Suite 32  
Baton Rouge, LA 70809  
Phone 225-751-5632  
Fax 225-751-5634

## **Materials Characterization - Bulk Asbestos Analysis**

### **Laboratory Analysis Report - Polarized Light**

#### **Morris & Associates**

P.O. Box 242, 5005 Hwy 161  
Scott, AR 72142

Attn: Liz Ketcherside

Customer Project: 1326 E. Broadway, 3315-22

Reference #: CAL22043482DH Date: 04/14/22

#### **Analysis and Method**

Summary of polarized light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved)). The sample is first viewed with the aid of a stereomicroscope. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are performed. Calibrated liquid refractive oils are used as liquid mounting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjunction with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

#### **Discussion**

Vermiculite containing samples may contain trace amounts of actinolite/tremolite. When not detected by PLM, these samples should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may contain a regulated asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be detectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

Since allowable variation in quantification of samples close to 1% is high, <1% may be reported. Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos or "trace asbestos". In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.

#### **Qualifications**

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have completed college courses or hold a degree in a natural science (geology, biology, or environmental science). Recognition by a state professional board in one these disciplines is preferred, but not required. Extensive in-house training programs are used to augment the educational background of the analyst. The Laboratory Director and Quality Manager have received supplemental McCrone Research training for asbestos identification. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235  
AIHA LAP, LLC Laboratory #102929



04622043482

ASBESTOS  
FIELD SURVEY FORM / BULK SAMPLE  
LOG AND CHAIN OF CUSTODY RECORD

CLIENT EAST ARKANSAS COMMUNITY COLLEGE LOCATION FOREST CITY, AR  
PROJECT 1326 E. Broadway 3315.22 DATE 4/8/22 PAGE 1/1

NO. 1326-040822-M001 SAMPLED BY CT  
LOCATION ATT-C Ducting  
DESCRIPTION PAPER INSULATION ON DUCTWORK

NO. 1326-040822-M002 SAMPLED BY CT  
LOCATION BASEMENT DUCTING TYPICAL ENTIRE HOUSE  
DESCRIPTION PAPER INSULATION ON DUCTWORK

NO. \_\_\_\_\_ SAMPLED BY \_\_\_\_\_  
LOCATION \_\_\_\_\_  
DESCRIPTION \_\_\_\_\_

NO. \_\_\_\_\_ SAMPLED BY \_\_\_\_\_  
LOCATION \_\_\_\_\_  
DESCRIPTION \_\_\_\_\_

NO. \_\_\_\_\_ SAMPLED BY \_\_\_\_\_  
LOCATION \_\_\_\_\_  
DESCRIPTION \_\_\_\_\_

Relinquished By [Signature]  
Signature: \_\_\_\_\_  
Printed: Craig Tolleson  
Date: 4/11/22 Time: \_\_\_\_\_  
Received By \_\_\_\_\_ 10:30AM  
Signature: \_\_\_\_\_  
Printed: \_\_\_\_\_ APR 13 2022  
Date: \_\_\_\_\_

Mail Results To: P.O. Box 242  
Scott, AR 72142

Attn: Craig

Laboratory: CRISP

Laboratory Instructions:  
☒ PLM ☐ TEM Verification  
☐ TEM Bulk

Turnaround: \_\_\_\_\_ IMM ☒ 24 HR.  
\_\_\_\_\_ 48 HR. \_\_\_\_\_ 72 HR.  
\_\_\_\_\_ 1 Week

email Results To:  
admin@morrisae.com  
liz@morrisae.com

Attn: Craig

White Copy - Lab Yellow Copy - File

**EACC  
PRESIDENT'S HOUSE  
FORREST CITY, ARKANSAS  
APRIL 8, 2022**



1.

FRONT OF RESIDENCE.



2.

2<sup>ND</sup> FLOOR MASTER BATH.  
VISIBLE MOLD GROWTH  
ON CEILING.

**EACC  
PRESIDENT'S HOUSE  
FORREST CITY, ARKANSAS  
APRIL 8, 2022**



3.

ATTIC AREA ABOVE  
MASTER BATH.  
FIBERGLASS INSULATION  
IS NOT COVERING THE  
BATHROOM CEILING. THIS  
IS ALLOWING  
UNCONDITIONED AIR TO  
COOL THE PLASTER  
CEILING.



4.

STAIRWELL TO ATTIC.  
EAST WALL HAS HEAVY  
MOLD GROWTH. THE  
MOLD GROWTH IS ON  
PLASTER SUBSTRATE.  
THERE ARE TWO DUCTS IN  
THE WALL CAVITY. THERE  
IS VERY LITTLE  
INSULATION ON THESE  
DUCTS.

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PRESIDENT'S HOUSE  
FORREST CITY, ARKANSAS  
APRIL 8, 2022**



5.

STAIRWELL TO ATTIC  
WEST HALL. THERE IS A  
SMALL AREA OF MOLD  
GROWTH. THE SAME  
CONDITION EXISTS IN THIS  
AREA AS EAST WALL.



6.

THESE ARE THE TWO  
DUCTS THAT ARE IN THE  
WALL CAVITY SHOWN IN  
PHOTO #4. THE  
INSULATION IS DAMAGED.

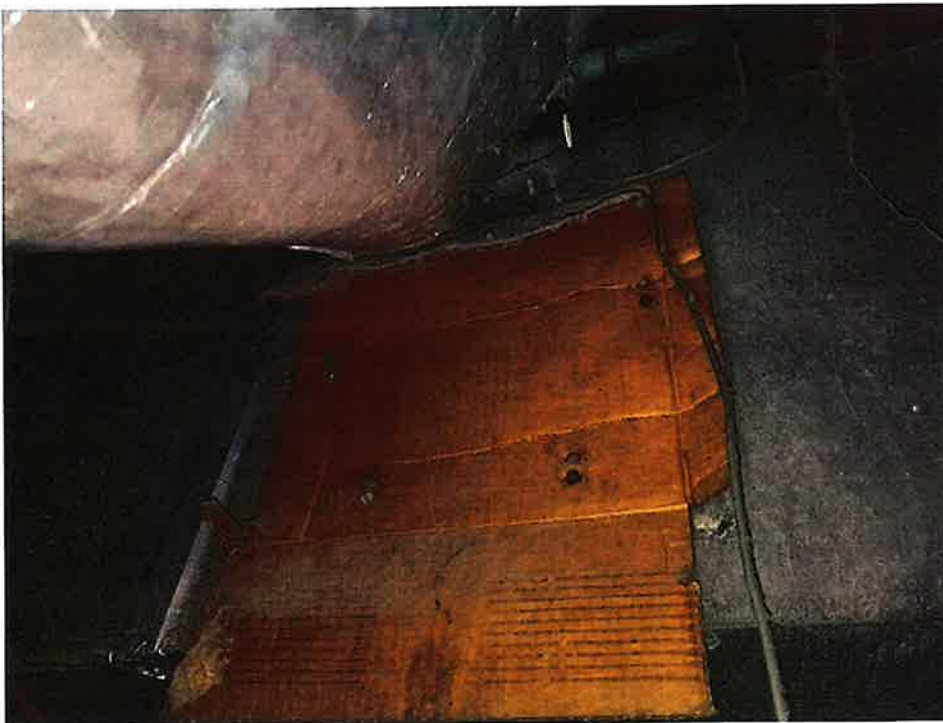


**EACC  
PRESIDENT'S HOUSE  
FORREST CITY, ARKANSAS  
APRIL 8, 2022**



7.

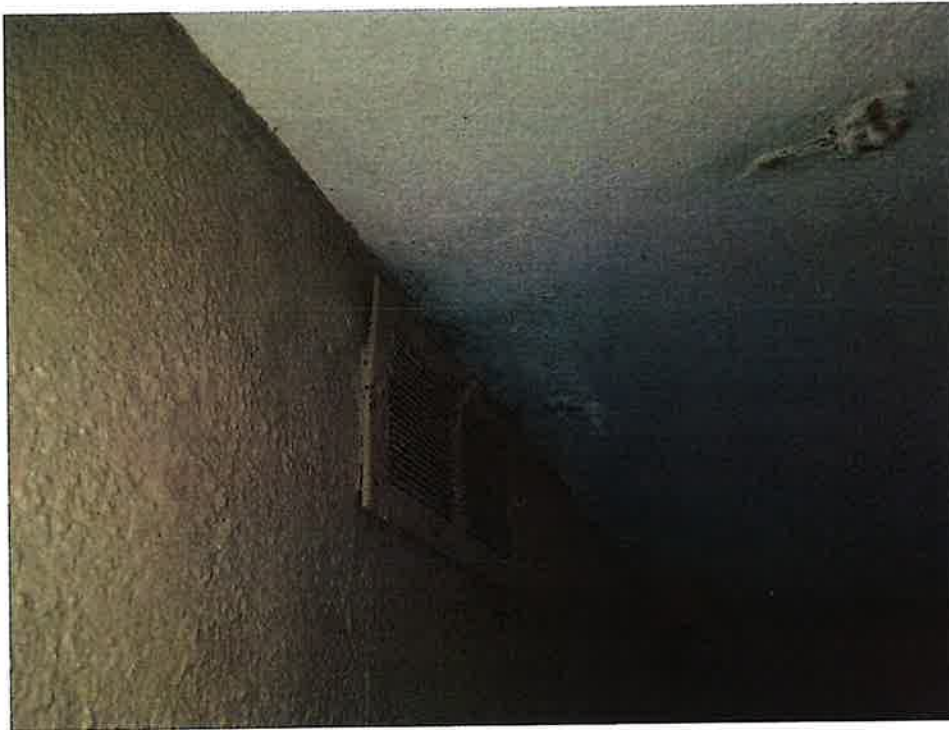
EXTENDED VIEW OF PHOTO #6. THE PAPER INSULATION ON THE DUCT CONTAINS 50% CHRYSOTILE ASBESTOS THERE IS ALSO SMALL AMOUNT OF MOLD GROWTH ON ASBESTOS PAPER INSULATION.



8.

BASEMENT. DUCT MAIN TRUNK HAS CARDBOARD USED TO COVER AN OPENING.

**EACC  
PRESIDENT'S HOUSE  
FORREST CITY, ARKANSAS  
APRIL 8, 2022**



9.

BASEMENT. SMALL  
AMOUNT OF MOLD  
GROWTH ON CEILING AT  
HVAC VENT.



10.

CRAWL SPACE.  
DUCTWORK WITH  
ASBESTOS CONTAINING  
PAPER INSULATION.

**EACC  
PRESIDENT'S HOUSE  
FORREST CITY, ARKANSAS  
APRIL 8, 2022**



11.

BASEMENT SOUTH. HVAC  
UNIT FILTER HOUSING  
NEEDS TO HAVE SEAL OVER  
FILTER. THIS IS ALLOWING  
UNFILTERED AIR PAST  
FILTER.



12.

BASEMENT NORTH HVAC  
UNIT. SAME CONDITION  
AS SOUTH UNIT.



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FORREST CITY, ARKANSAS  
APRIL 8, 2022**



13.

BASEMENT HVAC UNIT  
BLOWER SEEMS TO BE  
FAIRLY CLEAN.



14.

BASEMENT DRYER VENT IS  
EXHAUSTING INTO  
MECHANICAL ROOM  
WHERE BOTH HVAC UNITS  
ARE. THIS IS ALLOWING  
MOIST HUMID AIR INTO  
THE ROOM AND POSSIBLY  
INTO THE HVAC UNITS.

